Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia



# Final Integrated Feasibility Report/ Environmental Assessment



[THIS PAGE LEFT INTENTIONALLY BLANK.]

# FINDING OF NO SIGNIFICANT IMPACT

# CONTINUING AUTHORITIES PROGRAM, SECTION 14 EMERGENCY STREAMBANK AND SHORELINE PROTECTION, JAMES RIVER SHORELINE, NEWPORT NEWS, VIRGINIA

The U.S. Army Corps of Engineers, Norfolk District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The final Integrated Feasibility Report and Environmental Assessment (IFR/EA) dated April 15, 2021, for the Continuing Authorities Program, Section 14 Emergency Streambank and Shoreline Protection, James River Shoreline Feasibility Study, addresses shoreline stabilization opportunities and feasibility in Newport News, Virginia.

The Final IFR/EA, incorporated herein by reference, evaluated various alternatives that would stabilize the severely eroded shoreline along a 600-foot section of the James River which threatens existing public facilities and creates a public safety issue. The Recommended Plan is the National Economic Development (NED) Plan which includes:

Stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at an elevation of 5-feet (NAVD88); earthen sloped berm graded on a 1 Vertical to 3 Horizontal (1V:3H) slope; approximately 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; an estimated4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; approximately 35,000 square feet of seeding; and 700 cubic yards of debris removal.

In addition to a No Action/Future Without Project Alternative, four alternatives were evaluated. The alternatives included a rock sill with vegetated slope, a full rock revetment, a partial rock revetment with a vegetated slope, and a living shoreline with avegetated slope. Only those alternative plans that provide the best protection with the least amount of disruption to the environment for the longest life span and for a reasonable budget were carried forward. The final alternatives for evaluation and consideration included the "no action" alternative and the rock sill with a vegetated slope.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the Recommended Plan are listed in Table 1:

<sup>&</sup>lt;sup>1</sup>40 CFR 1505.2(b) requires a summary of the alternatives considered.

Table 1: Summary of Potential Effects of the Recommended Plan

|  | Insignificant<br>effects | Insignificant<br>effects as a<br>result of<br>mitigation* | Resource<br>unaffected<br>by action |
|--|--------------------------|---|-------------------------------------|
| Aesthetics                                     | $\boxtimes$              |   |                                     |
| Air quality                                    | $\boxtimes$              |   |                                     |
| Aquatic resources/wetlands                     | $\boxtimes$              |   |                                     |
| Invasive species                               | $\boxtimes$              |   |                                     |
| Fish and wildlife habitat                      | ×                        |   |                                     |
| Threatened/Endangered species/critical habitat | ×                        |   |                                     |
| Historic properties                            | $\boxtimes$              |   |                                     |
| Other cultural resources                       | ×                        |   |                                     |
| Floodplains                                    | ×                        |   |                                     |
| Hazardous, toxic & radioactive waste           | $\boxtimes$              |   |                                     |
| Hydrology                                      | ×                        |   |                                     |
| Land use                                       |                          |   | ×                                   |
| Navigation                                     |                          |   | ×                                   |
| Noise levels                                   | ×                        |   |                                     |
| Public infrastructure                          |                          |   | ×                                   |
| Socio-economics                                | ×                        |   |                                     |
| Environmental justice                          |                          |   | ×                                   |

|                                     | Insignificant<br>effects | Insignificant<br>effects as a<br>result of<br>mitigation* | Resource<br>unaffected<br>by action |
|-------------------------------------|--------------------------|---|-------------------------------------|
| Geology, Topography, and Bathymetry | $\boxtimes$              |   |                                     |
| Tribal trust resources              |                          |   | $\boxtimes$                         |
| Water quality                       | $\boxtimes$              |   |                                     |
| Climate change                      | $\boxtimes$              |   |                                     |
| Transportation                      | $\boxtimes$              |   |                                     |

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the Recommended Plan. Best management practices (BMPs) as detailed in the IFR/EA will be implemented, if appropriate, to minimize impacts. If determined operationally feasible, a turbidity curtainwould be used to minimize turbidity impacts during construction. Tree removal would occur outside of April 15 – September 15, which includes the pupping season of June 1

- July 30 for the northern long-eared bat ((*Myotis septentrionalis*) if determined to be practical. Erosion and sediment control measures would be maintained during the duration of the project including a wire-supported silt fence, until final stabilization has been achieved on all applicable portions of the site. No compensatory mitigation is required as part of the Recommended Plan.

Public review of the draft IFR/EA and FONSI was completed on December 7, 2020. All comments submitted during the public review period were responded to in the Final IFR/EA.

Pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended, the U.S. Army Corps of Engineers determined that the Recommended Plan may affect andis likely to adversely affect the northern long-eared bat if present. The U.S. Fish and Wildlife Service (FWS) indicated in their letter verification dated 21 August 2020 that this project may affect the northern long-eared bat; however, any take that may occur as a result of the action is not prohibited under the ESA Section 4(d) rule. The FWS verified that the January 5, 2016 Programmatic Biological Opinion concludes the USACE's consultation responsibilities under ESA Section 7(a)(2) with respect to the northern long-eared bat in their letter dated 21 August 2020. Pursuant to the ESA of 1973, as amended, the U.S. Army Corps of Engineers also determined that the Recommended Plan may affect

but is not likely to adversely affect the following federally listed species or their designated critical habitat: the Atlantic sturgeon (*Acipenser oxyrinchus*), shortnose sturgeon (*Acipenser brevirostrum*), leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*), hawksbillsea turtle (*Eretmochelys imbricata*), and loggerhead sea turtle (*Caretta caretta*). The National Marine Fisheries Service (NMFS) concurred with the Corps' determination on 21 September 2020.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties would not be adversely affected by the Recommended Plan. The Virginia Department of Historic Resources concurred with the determination on September 29, 2020.

Pursuant to the Clean Water Act of 1972, as amended, the discharge of dredged or fill material associated with the Recommended Plan has been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act Section 404(b)(1) Guidelines evaluation is found in the Environmental Appendix of the IFR/EA.

The State Water Control Board issued conditional §401 Water Quality Certification for Regional Permit (RP) 19 (effective date 5 September 2018) as meeting the requirements of the Virginia Water Protection Permit Regulation. A copy of the RP-19 including terms and conditions is provided in the Integrated Report/EA Environmental Appendix. The Recommended Plan appears to meet the requirements of the RP-19 and its associated Water Quality Certification, pending confirmation based on information to be developed during the Design and Implementation Phase. Therefore, this provides reasonable assurance that a Water Quality Certification pursuant to Section 401 of the Clean Water Act could be issued for the Recommended Plan from the Virginia Department of Environmental Quality (VDEQ). A Water Quality Certification pursuant to Section 401 of the Clean Water Act would be obtained from the VDEQ prior to construction. All conditions of the Water Quality Certification wouldbe implemented in order to minimize adverse impacts to water quality.

A determination of consistency with the Virginia Coastal Zone Management program pursuant to the Coastal Zone Management Act of 1972 was submitted to the Virginia DEQ on September 29, 2020. Virginia DEQ provided their concurrence on November 20, 2020. All requirements of the consistency determination concurrence response received from the Virginia DEQ shall be implemented in order to minimize adverse impacts to the coastal zone.

All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed. Pursuant to the Magnuson Stevens Fishery Conservation and Management Act, coordination has occurred with NMFS regarding potential the potential for minor, adverse effects to Essential Fish Habitat for various life stages of twelve fish species that may be present in the vicinity of the project site in the James River. The NMFS concurred with the Corps' determination on September 29, 2020. Pursuant to the Fish and Wildlife Coordination Act, coordination has occurred

with FWS regarding potential effects on fish and wildlife resources. The FWCA documentation is located in the Environmental Appendix of the IFR/EA. In their letter dated April 12, 2021, the USFWS acknowledges Alternative 1 as a reasonable compromise between cost and ecological benefit.

Technical, environmental, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the Recommended Plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

| Date: |                   |  |
|-------|-------------------|--|
|       | Brian P. Hallberg |  |
|       | Colonel, EN       |  |
|       | Commanding        |  |

<sup>&</sup>lt;sup>2</sup> 40 CFR 1505.2(B) requires identification of relevant factors including any essential to national policy which were balanced in the agency decision.

<sup>&</sup>lt;sup>3</sup> 40 CFR 1508.13 stated the FONSI shall include an EA or a summary of it and shall note any other environmental documents related to it. If an assessment is included, the FONSI need not repeat any of the discussion in the assessment but may incorporate by reference.

# **EXECUTIVE SUMMARY**

The U.S. Army Corps of Engineers (USACE), Norfolk District initiated this study in May 2015 at the request of the non-federal sponsor, the City of Newport News, Virginia. The study authority is Section 14 of the Flood Control Act of 1946 as amended, for Emergency Streambank Restoration under the Continuing Authorities Program (CAP).

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, relative sea level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff results in a continuing loss of land and is an imminent threat to existing public facilities and utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep eroding slope.

CAP Section 14 feasibility studies must evaluate whether it would be more cost effective to relocate the public facilities so that they would no longer be at risk from the streambank erosion or stabilize the shoreline to reduce the risk to the facilities where they are currently located. This report identifies the alternatives that were considered to address this problem and recommends bank stabilization by rock sill with vegetated slope as the plan that would best meet the study objectives and protect the public facilities at risk. During the feasibility phase, there were four action alternatives considered, including rock sill with vegetative slope, full rock revetment, partial rock revetment with vegetative slope, and living shoreline with vegetative slope.

Alternative 1 (the Recommended Plan) is the least cost option at an estimated July 2021 project first cost of \$3,481,000 and would stabilize the streambank with a rock sill and vegetated slope. This plan includes a longitudinal rock sill running the length of the project area, earthen slope berm graded on a 1 Vertical to 3 Horizontal (1V:3H), 2900 tons of VDOT class III riprap, 800 tons of VDOT number 1 stone, 4300 cubic yards of fill, 1600 square yards of geotextile filter fabric, 35,000 square feet of seeding, and 700 cubic yards of debris removal. At the estimated project first cost of \$3,481,000, the estimated federal cost-share (65%) is 2,262,650 and the estimated non-federal cost-share (35%) is \$1,218,350. This report provides the basis for preparing plans and specifications for the subsequent construction of the Recommended Plan.

# LIST OF ACRONYMS AND ABBREVIATIONS

AAB Average Annual Benefits

AAC Average Annual Costs

ACQR Air Quality Control Region

ADCIRC Advanced Circulation Model

APE Area of Potential Effect

APP Accident Prevention Plan

ASTM American Society for Testing and Materials

BMP Best Management Practice

CAA Clean Air Act

CAP Continuing Authorities Program

CCB Center for Conservation and Biological Diversity

CEQ Council on Environmental Quality

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CHS Coastal Hazards Study

CO Carbon Monoxide

CO2 Carbon Dioxide

CWA Clean Water Act

dBA A-weighted decibels

DEQ Department of Environmental Quality

DHR Department of Historic Resources

DoD Department of Defense

EA Environmental Assessment

FFH Essential Fish Habitat

ERDC Engineering, Research and Development Center (USACE)

ESA Endangered Species Act

EO Executive Order

FEMA Federal Emergency Management Act

FID Federal Interest Determination

FUDS Formerly Used Defense Site

FWIS Fish and Wildlife Information System

GARFO Greater Atlantic Region Fisheries Office

GHGs Greenhouse Gases

Hz Hertz

LERR Lands, Easements, rights-of-way and relocation

LERRDs Lands, easements, right-of-way, relocations, and disposal areas

MHW Mean High Water

MHHW Mean Higher High Water

MLW Mean Low Water

MLLW Mean Lower Low Water

MSFCMA Magnuson-Stevens Fishery Conservation and Management Act

NAAQS National Ambient Air Quality Standards

NACCS North Atlantic Coast Comprehensive Study

NAD North Atlantic Division

NAVD 88 North American Vertical Datum of 1988

NED National Economic Development

NEPA National Environmental Policy Act

NHPA National Historic Preservation Act

NMFS National Marine Fisheries Service

NOAA National Oceanic and Atmospheric Administration

NOx Nitrogen Oxides

NPL National Priorities List

NRHP National Register of Historic Places

NTDE National Tidal Datum Epoch (NTDE)

OHS Occupational Health and Safety

03 Ozone

P&G Principles and Guidelines (USACE)

PM2.5 Particulate Matter measured as equal to or less than 2.5 microns in

diameter

PM10 Particulate Matter measured as equal to or less than 10 microns in

diameter

PPA Project Partnership Agreement

PPE Personal Protective Equipment

Ppt Parts Per Thousand

RCRA Resource Conservation and Recovery Act

ROI Region of Influence

SAV Submerged Aquatic Vegetation

SLR Sea Level Rise

SO2 Sulfur Dioxide

SPT Standard Penetration Testing

STWAVE Steady State Special Wave

TSP Tentatively Selected Plan

TMDL Total Maximum Daily Load

TRI Toxic Release Inventory

TRIS Toxic Chemical Release Inventory System

TSS Total Suspended Solids

USACE United States Army Corps of Engineers

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

VDGIF Virginia Department of Game and Inland Fisheries

VIMS Virginia Institute of Marine Science

VMRC Virginia Marine Resources Commission

VOCs Volatile Organic Compounds

WRDA Water Resources Development Act

# **TABLE OF CONTENTS**

| 1 |                 | DDUCTION  |            |
|---|-----------------|---|------------|
|   | 1.1 STU         | DY AUTHORITY  | 1          |
|   | 1.2 PUR         | POSE AND SCOPE  | 1          |
|   | 1.3 STUI        | DY AREA   | 2          |
|   | 1.4 BAC         | KGROUND   | 3          |
|   | 1.5 PRIC        | OR REPORTS AND EXISTING PROJECTS                            | 5          |
| 2 | PLAN            | FORMULATION   | 6          |
|   | 2.1             | PROBLEMS AND OPPORTUNITIES                                  |            |
|   | 2.2             | PLANNING OBJECTIVES AND CONSTRAINTS                         | 7          |
|   | 2.2.1           | PLANNING OBJECTIVES   |            |
|   | 2.2.2           | PLANNING CONSTRAINTS AND CONSIDERATIONS                     | 8          |
|   | 2.3             | AFFECTED ENVIRONMENT  | 8          |
|   | 2.3.1           | AESTHETICS  | 9          |
|   | 2.3.2           | AIR QUALITY   | .10        |
|   | 2.3.3           | BATHYMETRY, HYDROLOGY, AND TIDAL PROCESSES                  | .11        |
|   | 2.3.4           | CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS                 | .13        |
|   | 2.3.5           | CULTURAL RESOURCES  | .14        |
|   | 2.3.6           | FISHERY RESOURCES AND ESSENTIAL FISH HABITAT                |            |
|   | 2.3.7           | FLOODPLAINS AND FLOOD RISK MANAGEMENT                       |            |
|   | 2.3.8           | GEOLOGY, PHYSIOGRAPHY, AND TOPOGRAPHY                       |            |
|   | 2.3.9           | HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE                     |            |
|   | 2.3.10          |   |            |
|   | 2.3.11          | OCCUPATIONAL HEALTH AND SAFETY                              |            |
|   | 2.3.12          |   |            |
|   | 2.3.13          |   |            |
|   | 2.3.14          |   | .26        |
|   | 2.3.15          | , ,   | .27        |
|   | 2.3.16          |   |            |
|   | 2.3.17          |   |            |
|   | 2.3.18          |   |            |
|   | 2.4             | DEVELOPMENT OF ALTERNATIVE PLANS                            |            |
|   | 2.4.1           | INITIAL MEASURES  |            |
|   | 2.4.2           | SCREENING OF MEASURES                                       |            |
| 2 | 2.5             | ALTERNATIVE FORMULATION                                     |            |
|   | <b>EVAL</b> 3.1 | SCREENING OF PRELIMINARY ALTERNATIVES                       |            |
|   | 3.1             | FINAL ALTERNATIVES FOR EVALUATION AND CONSIDERATION         |            |
|   |                 | RELOCATION OF ROAD  | . აი<br>ვე |
|   | 3.2.2           | ALTERNATIVE 1: NO ACTION/FUTURE WITHOUT PROJECT ALTERNATIVE |            |
|   | 3.2.3           | ALTERNATIVE 1: NO ACTION/I OTOKE WITHOUT ROSECT ALTERNATIVE |            |
|   | 3.2.4           | COMPARISON OF ALTERNATIVES                                  | . 30<br>38 |
|   | 3.2.5           | LOCALLY PREFERRED PLAN                                      |            |
| 4 |                 | RIPTION OF THE RECOMMENDED PLAN                             | 40         |
|   |                 | NEERING CONSIDERATIONS                                      | .41        |
| • | 5.1             | NORTH ATLANTIC COAST COMPREHENSIVE STUDY (NACCS)            | .40        |
|   |                 | RELATIVE SEA LEVEL RISE EFFECTS ON STRUCTURE HEIGHTS        | .42        |
|   |                 | VERTICAL CONTROLS AND DATUMS                                |            |
|   |                 |   |            |

|          | 5.4   | DESIGN AND CONSTRUCTION CONSIDERATIONS         | 45 |
|----------|-------|--|----|
|          | 5.5   | CONSTRUCTION SEQUENCING STRATEGY               | 47 |
| 6        | ENVIF | RONMENTAL CONSEQUENCES                         | 48 |
|          | 6.1   | AESTHETICS                                     | 49 |
|          | 6.2   | AIR QUALITY                                    |    |
|          | 6.3   | BATHYMETRY, HYDROLOGY, AND TIDAL PROCESSES     | 50 |
|          | 6.4   | CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS    | 50 |
|          | 6.5   | CULTURAL RESOURCES                             | 51 |
|          | 6.6   | FISHERY RESOURCES AND ESSENTIAL FISH HABITAT   |    |
|          | 6.7   | FLOODPLAINS AND FLOOD RISK MANAGEMENT          |    |
|          | 6.8   | GEOLOGY, PHYSIOGRAPHY, AND TOPOGRAPHY          |    |
|          | 6.9   | HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE        |    |
|          | 6.10  | NOISE AND VIBRATION                            |    |
|          | 6.11  | OCCUPATIONAL HEALTH AND SAFETY                 |    |
|          | 6.12  | RECREATION                                     |    |
|          | 6.13  | SOCIOECONOMICS                                 |    |
|          | 6.14  | SPECIAL STATUS SPECIES                         | 57 |
|          | 6.15  | VEGETATION, WETLANDS, AND SUBMERGED VEGETATION | 57 |
|          | 6.16  | WATER QUALITY                                  |    |
|          | 6.17  | WILDLIFE                                       |    |
|          | 6.18  | TRANSPORTATION                                 |    |
|          | 6.19  | CUMULATIVE IMPACTS                             |    |
| _        | 6.20  | CONCLUSION                                     |    |
|          |       | RONMENTAL COMPLIANCE                           |    |
| _        |       | RDINATION                                      |    |
|          | 8.1   | PUBLIC VIEWS AND RESPONSES                     |    |
|          | 8.2   | AGENCY RESPONSES                               |    |
| 9        |       | IMPLEMENTATION REQUIREMENTS                    |    |
|          | 9.1   | FEDERAL RESPONSIBILITIES                       |    |
|          | 9.2   | NON-FEDERAL RESPOSIBILITIES                    |    |
|          | 9.3   | VIEW OF NON-FEDERAL SPONSOR, LETTER OF SUPPORT |    |
| 10<br>11 |       | OF AGENCIES AND INDIVIDUALS CONTACTED          | _  |
| 12       |       |  |    |
| 14<br>44 |       | RENCES   |    |
|          |       |  |    |

# **LIST OF FIGURES**

| Figure 1-1. Location of Study Area   | 2  |
|--|----|
| Figure 1-2. View facing southeast of eroding shoreline at project site along   | 3  |
| Figure 1-3. View facing northwest of eroding shoreline at project site along James River   | 4  |
| Figure 1-4. View facing southeast of project site and crack in ground surface along James Rive                                       |    |
| Figure 1-5. View facing northwest of the debris  |    |
| Figure 2-1. Viewscapes of the Region of Influence. Images taken 12/06/2019   | 10 |
| Figure 2-2. Average surface salinity in the vicinity of the Region of Influence.   | 11 |
| Figure 2-3. Bathymetry of the James River near the Project Site.   | 12 |
| Figure 2-4 and Figure 2-5. Eastern oyster and Atlantic ribbed mussels observed at the Proposed Project Site. Images taken 12/06/2019 | 16 |
| Figure 2-6. Public and Private Oyster Grounds in the vicinity of the Study Area  | 17 |
| Figure 2-7. Effective 2014 FEMA 1- and 0.2-Percent-Annual-Chance Floodplains   | 21 |
| Figure 2-8. Physiographic Provinces of Virginia (Virginia Department of Conservation and Recreation 2016)                            | 22 |
| Figure 2-9. Benthic substrate types in the James River in the vicinity of the Study Area   | 23 |
| Figure 2-10. Upland vegetation present at the project site. Image taken 12/06/2019   | 27 |
| Figure 2-11. Existing material present along shoreline in the project area. Image taken 12/06/2019                                   | 28 |
| Figure 2-12. Location of Impaired Waters Adjacent to Study Area  | 30 |
| Figure 2-13. Bald Eagle Nesting Locations in vicinity of Study Area. (CCB Mapping Portal 202 Watts and Byrd 2013)                    |    |
| Figure 2-14. Alternative 1   | 36 |
| Figure 2-15. Alternative 2.  | 36 |
| Figure 2-16. Alternative 3.  | 37 |
| Figure 2-17. Alternative 4.  | 37 |
| Figure 4-1. Tentatively Selected Plan (TSP) Alternative 1.   | 40 |
| Figure 5-1. NACCS model save points near the project location  | 41 |
| Figure 5-2. NACCS Stillwater elevations for Save Point 17351   | 42 |
| Figure 5-3. Historical Sea Level Rise with USACE Scenarios for Sewells Point   | 44 |
| Figure 6-1. Vegetated slope adjacent to Government Ditch. Image taken 2/06/19  | 58 |

# **LIST OF TABLES**

| Table 2-1. Historic Resources identified by the Department of Historic Resources within make the mile of Project Site                               |    |
|---|----|
| Table 2-2. Historic Resources identified by the Department of Historic Resources within mile of Project Site  |    |
| Table 2-3. National Marine Fisheries Service Listed Fish Species with Essential Fish Habitat in the James River                                     | 18 |
| Table 2-4. Screening Measures for the Initial Array of Alternatives   | 33 |
| Table 2-5. Summary of Measures Screening  | 35 |
| Table 3-1. Comparison of the No Action Alternative with Alternatives 1, 2, 3, and 4   | 39 |
| Table 5-1. NACCS Mean (50%) and 98% Confidence Limits Stillwater elevations for Sav<br>Point 17351 Adjusted to Present Day                          |    |
| Table 5-2. Additional Increase in SLR predicted 20 years, 50 years, and 100 years into the future (in feet) from project start year of 2022 to 2122 |    |
| Table 5-3. Level of Protection over time  | 44 |
| Table 7-1. Environmental Compliance   | 62 |
| Table 7-2. Executive Orders   | 64 |
| Table 7-3. Environmental Permitting Requirements  | 66 |
| Table 7-4. Federally listed species known or with the potential to occur in the Action Area   |    |
| Table 9-1. Summary of Federal and Non-Federal Total Project Cost for Recommended Plan   | 77 |

# **APPENDICES**

#### **APPENDIX A** – ENVIRONMENTAL APPENDICES

**APPENDIX A-1** – ENDANGERED SPECIES ACT SECTION 7 CONSULTATION DOCUMENTATION - U.S. FISH & WILDLIFE SERVICE (USFWS)

**APPENDIX A-2** – ENDANGERED SPECIES ACT SECTION 7 CONSULTATION DOCUMENTATION – NATIONAL MARINE FISHERIES SERVICE (NOAA)

APPENDIX A-3 – CLEAN WATER ACT, SECTION 404 (b) (1) REPORT

**APPENDIX A-4** – COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTANCY DETERMINATION (CZMA)

**APPENDIX A-5** – COORDINATION

**APPENDIX A-6** – ESSENTIAL FISH HABITAT ASSESSMENT

**APPENDIX A-7 –** NATIONAL HISTORIC PRESERVATION ACT SECTION 106 COORDINATION

**APPENDIX A-8** - FISH AND WILDLIFE COORDINATION ACT CONSULTATION DOCUMENTATION

**APPENDIX B** – REAL ESTATE PLAN

**APPENDIX C** – ENGINEERING

**APPENDIX D** – NON- FEDERAL SPONSOR SUPPORT LETTER AND SPONSOR SELF-CERTIFICATION FOR FINANCIAL CAPABILITY

**APPENDIX E** – USACE (NORFOLK DISTRICT) LEGAL CERTIFICATION

# 1 INTRODUCTION

#### 1.1 STUDY AUTHORITY

The James River Shoreline, Newport News, Virginia study is authorized by the Continuing Authorities Program (CAP), Section 14 of the Flood Control Act of 1946, as amended (P.L.79-526), Emergency Streambank and Shore Protection. The purpose of the Section 14 program is to construct emergency streambank and shore protection to prevent natural erosion processes from damaging highways, bridge approaches, public works, churches, public and private non-profit hospitals, schools, water and sewer lines, and other public or non-profit facilities that offer public services to all, and known historic properties eligible or listed on the National Register of Historic Places. The term "Shore Protection" is now referred to as Coastal Storm Risk Management; however, the "Shore Protection" will be used within this report as it is included in the existing CAP, Section 14 Language.

If an eligible facility is in imminent danger of failure due to streambank or shoreline erosion, and after a request for a project has been received from a potential non-federal sponsor stating its desire to participate in a solution, the Corps will conduct a feasibility study to analyze the problem and determine if there is a feasible solution. In the feasibility phase, the first \$100,000 is 100 percent federally funded. Any additional feasibility study costs require an executed Feasibility Cost Sharing Agreement (FCSA), stating that all costs above the initial \$100,000 are cost-shared 50 percent federal and 50 percent non-federal.

### 1.2 PURPOSE AND SCOPE

On May 15, 2015 the City of Newport News requested USACE, Norfolk District to evaluate structural and nonstructural measures that could be implemented as part of a Federal project under CAP Section 14, Emergency Streambank and Shoreline Protection. The City requested this study to address the erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening River Road and various public utilities. Facilities at risk include the roadway, water, sanitary sewer, electric, and communication lines. The north bank of the James River within the project area is subject to natural erosion processes including river flow, relative sea level rise, and tidal, storm, and wind driven wave action. The first step in the evaluation process, which is fully federally funded, is to determine if there is Federal Interest in pursuing a feasibility study for this area. This task has already been completed; a favorable Federal Interest Determination (FID) for a shoreline erosion protection study along the James River was approved on March 14, 2017. From this determination and approval, USACE, North Atlantic Division (NAD) sanctioned the development of the FCSA and the Project Management Plan (PMP) for the feasibility phase.

The purpose of this study is to determine if constructing emergency streambank protection to prevent bank erosion from damaging River Road and other public works

utilities on River Road is feasible and economically justified. The study identifies the least cost alternative, and the Recommended Plan is justified if total project costs are less than costs of relocating the threatened road and public utilities. Federal costs are limited to \$5,000,000 for CAP Section 14. The cost of lands, easements, right-of-way, relocations of utilities, disposal areas (LERRDs), and the operation and maintenance of the project, once completed, are a non-federal responsibility.

The purpose of the proposed action is to stabilize the existing shoreline along the 600-foot section of the James River and prevent future erosion resulting from the combined effects of storm surge, sea level rise, and stormwater runoff. The project is needed to provide long-term protection to existing public utilities on the adjacent upland, including River Road, and to eliminate unsafe conditions associated with the steep slope.

# 1.3 STUDY AREA

The City of Newport News is located on the Lower Peninsula in eastern Virginia, adjacent to the Chesapeake Bay, approximately 65 miles southeast of Richmond. The study area is located entirely within the City along the north bank of the James River, west of the James River Bridge (US-17/US-258). It is bound on the south by the Government Ditch, to the north by North Avenue, and extends eastward to River Road. A map of the study area is provided below in Figure 1-1.



Figure 1-1. Location of Study Area

#### 1.4 BACKGROUND

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, relative sea level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope.

The tidal shorelines of the Chesapeake Bay are generally classified into six basic types depending on the height of the upland bank. The project area best fits into the High Bank type of shoreline, where upland elevations are greater than 10 feet above mean low water. Bank erosion takes place at the shoreline and higher up the bank, where wave and storm surge action during hurricanes cause bank erosion and slumping from wave undercutting and can threaten the high bank, or bluff. See below Figures 1-2, 1-3,1-4, and 1-5 showing erosion at the study area along the James River.



Figure 1-2. View facing southeast of eroding shoreline at project site along



Figure 1-3. View facing northwest of eroding shoreline at project site along James River



Figure 1-4. View facing southeast of project site and crack in ground surface along James River



Figure 1-5. View facing northwest of the debris.

At one location, confirmed on a December 6, 2019 site visit, the bank has encroached to within approximately 10 feet of the existing road (shown in Figure 1-4) and with a storm event that could potentially occur within the next two years indicate that "with out project" conditions are expected to damage public facilities is estimated to exceed \$3 Million.

#### 1.5 PRIOR REPORTS AND EXISTING PROJECTS

Over the years, the City of Newport News and USACE have completed studies and projects within a close vicinity of the study area along the James River to include:

- Government Ditch, Newport News, Virginia, Section 205 was to improve the channel of Newmarket Creek from Dresden Drive in Newport News to U.S. Highway 258 and improvement of entire length. A dam across Newmarket Creek would divert floodwaters from the creek into Government Ditch and thence into the James River that was completed in 1967.
- 2) James River Bank Stabilization Alternative Analysis done by CH2MHILL, The objective of the study was to evaluate the site, identify options for bank stabilization measures, and recommend a preferred alternative for the project along River Road completed in 2013.
- Bank Stabilization and Living Shoreline at the Mariners Museum (Kettle Pond), Newport News, Virginia completed in 2016.

# 2 PLAN FORMULATION

In general, the plan formulation process follows six major steps, as listed and summarized below. This procedure is in accordance with the USACE Principles and Guidelines (P&G) and related regulations. These six steps are:

- Step 1: Identification of problems and opportunities;
- Step 2: Inventory of forecasting conditions;
- Step 3: Formulation of alternative plans;
- Step 4: Evaluation of alternative plans;
- Step 5: Comparison of alternative plans; and
- Step 6: Selection of a plan.

Preliminary plans were formulated by combining management measures. Each plan was formulated in consideration of the following four criteria described in the P&G:

- <u>Completeness</u>: Extent to which the plan provides and accounts for all necessary investments or actions to ensure realization of the planning objectives;
- <u>Effectiveness</u>: Extent to which the plan contributes to achieving the planning objectives;
- <u>Efficiency</u>: Extent to which the plan is the most cost-effective means of addressing the specified problems and realizing the specified opportunities, consistent with protecting the nation's environment; and
- <u>Acceptability</u>: Workability and viability of the alternative plan with respect to acceptance by Federal and non-federal entities and the public, and compatibility with existing laws, regulations, and public policies.

The underlying rational of the Planning Process is described in ER 1105-2-100 as "Formulation of Alternative Plans."

- Alternative plans are formulated to identify ways of achieving planning objectives within the project constraints, in order to solve the problems and realize the opportunities listed in Step 1 of the Planning Processes, which is to "Identify Problems and Opportunities.";
- Structural and nonstructural management measures are identified and combined to form alternative plans;
- Planners will keep focus on complete plan(s) while doing individuals tasks, to ensure their plans address the problems of the planning area; and
- Section 904 of the Water Resources Development Act (WRDA) of 1986 requires USACE to address the following during the formulation and evaluation of alternative plan:
  - o Enhancing national economic development (NED) including benefits

to particular regions that are not transfers from other regions;

- Protecting and restoring the quality of the total environment;
- o The wellbeing of the people of the United States; and
- Preservation of cultural as well as historical values.

Plan formulation was conducted with focus on achieving the federal objective of water and related land resources project planning, which is to contribute to NED consistent with protecting the Nation's environmental statutes, applicable executive orders, and other federal planning requirements. Alternative plan development considered study area problems, opportunities, and constraints.

Alternative plan evaluation includes all effects, beneficial or adverse, to each of the four evaluation accounts identified in the Principles and Guidance (1983), which are National Economic Development, Environmental Quality, Regional Economic Development, and Other Social Effects.

### 2.1 PROBLEMS AND OPPORTUNITIES

Problems in the study area include:

- The river bank is severely eroded so that there is a significant risk that River Road and the various public utilities in the vicinity will be compromised if the erosion continues;
- The existing federal project in the vicinity, Government Ditch, is at risk of being damaged if the structural integrity of the concrete structure is affected by continued erosion; and
- 3) The river bank is severely eroded and the resulting 25-foot bluff creates a public safety issue.

Opportunities in the study area include:

- 1) Create safe bank conditions:
- 2) Prevent damage to the Government Ditch federal project;
- 3) Develop passive community recreational area (green space);
- 4) Improve community cohesion/pride;
- 5) Improve environmental aesthetics;
- 6) Protect cultural resource sites:
- 7) Provide pedestrian access to public property; and
- 8) Improve near-shore habitat.

#### 2.2 PLANNING OBJECTIVES AND CONSTRAINTS

The study goal is to determine if the project would contribute to the NED account in a manner consistent with protecting the nation's environment in accordance with national environmental statues, applicable executive orders, and other federal planning requirements.

#### 2.2.1 PLANNING OBJECTIVES

In general, the primary federal objective is to contribute planning objectives for this study take an integrated systematic approach to the stabilization of the eroding James River shoreline adjacent to River Road and to reduce the risk future erosion poses to that infrastructure. Based on the identified problems that the bank erosion causes within the study area; the following planning objective has been established to assist in the development and evaluation of alternative plans:

 Stabilize the eroding shoreline to reduce the risk that River Road and the various public utilities in the vicinity will be damaged and ultimately compromised by continued erosion over the period of analysis.

### 2.2.2 PLANNING CONSTRAINTS AND CONSIDERATIONS

Planning constraints are any policy, technical, environmental, economic, local, regional, social, and institutional factors that act to restrict the planning process. Constraints that will affect the plan formulation include:

- 1) Do not induce erosion to the left or right of the project area; and
- 2) Minimize environmental and cultural impacts.

In addition to constraints, there are also considerations such as state-of-the-art limitations, time, money, uncertainty of the future, policy, and the in accuracies inherent in design procedures on which alternative plans are based that are considered in the planning process. In this case, the project should not negatively affect federally threatened and endangered species and their critical habitats and should minimize environmental impacts. There is also a private boat dock and other privately owned real estate parcels in the study area that may affect the cost and/or implementation of a project.

### 2.3 AFFECTED ENVIRONMENT

The affected environment describes the existing environmental conditions found within the Region of Influence (ROI) and includes the area of potential impact of the project alternatives. This chapter has been prepared in accordance with the NEPA of 1969 (42 United States Code [U.S.C.] §§ 4321 et seq.) and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500–1508 [the 1978 version of this rule was used because the NEPA process had been previously initiated prior to the 14 September 2020 implementation of the CEQ NEPA streamlining rule]). This section summarizes the existing (baseline) conditions, to provide a sound basis for plan formulation and the impact analysis. All resources areas described in Chapter 2 are further analyzed in Chapter 6, Environmental Consequences, where the No Action/Future Without Project Alternative and Future With Project Alternative are evaluated and compared.

Much of the ROI for this section of the report is focused on the immediate 600-foot stretch of shoreline and the adjacent nearshore areas of the James River in Newport News. However, the ROI is further defined as necessary based on the individual resource topic.

The following two resource areas, land use and environmental justice, were dismissed from further analysis. Land use in the existing project site would not change and there would be no disproportionate human health or environmental effects on environmental justice communities, including minority or low-income populations, resulting from the implementation of the Preferred Action Alternative. According to the U.S. Environmental Protection Agency's Environmental Justice Screening and Mapping Tool (EJScreen), the Region of Influence is Census Block Group 517000315002 (USEPA 2020a). The approximate population for this Census Block Group is 2,178 individuals with an approximate 4% minority population and 20% low-income population which defines household income as less than or equal to twice the federal poverty level (USEPA 2020). According to US Census Bureau Data, the City of Newport News has a population of 179,673 with an approximately 52% minority population and 15.3% poverty rate. The minority population percentage is less than the corresponding community of comparison, the City of Newport News with an approximately 52% minority population (Census Bureau 2020). Although the potential for a low-income population exists, given the nature of the site improvements which includes stabilizing a 600-ft section of shoreline along the James River, there would be no potential for disproportionate impacts on environmental justice populations, including low-income populations.

# 2.3.1 AESTHETICS

Visual resources are the natural and man-made features that comprise the visual qualities of a given area, or "viewshed." These features form the overall impression thatan observer receives of an area or its landscape character from a certain vantage point. Topography, water, vegetation, man-made features, and the degree of panoramic view available are examples of visual characteristics of an area. Visual resources can be subjective by nature, and therefore the level of the proposed project's visual impacts can be challenging to quantify. Generally, projects that create a high level of contrast tothe existing visual character of a project setting are more likely to generate adverse visual impacts due to visual incompatibility. Thus, it is important to assess project effects relative to the existing conditions of the area.

Within a discrete viewshed, an individual's visual perception is a function of the area's spatial properties, visual content, and an individual's previous experiences. The visual character of an area can be altered by actions that would modify the landscape. To provide a baseline for assessing potential visual impacts on a viewshed, the ROI must be described in terms of its visual characteristics and a description of the user groups (viewer groups) who would experience any changes in visual character.

The ROI is defined by the areas in which temporary or permanent visual changes could occur. For this project, the ROI includes the shoreline situated along the James River and adjacent to River Road in the City of Newport News and surrounding areas.

The project site is located in a residential neighborhood, with the general visual landscape characterized by mostly unobstructed, scenic views of the James River (Figure 2-1). Several trees are present along the top of the approximate 25-foot bluffs which transition steeply to a sandy intertidal shoreline comprised of large concrete and stone debris and other structures previously placed to halt erosion. Several deteriorating groins and pilings are present along the approximate 600-foot shoreline. An existing private pier and boathouse are also located within the ROI. The primary user groups of this area include the private property owners along River Road. Additional users who may frequent this area includes other neighborhood residents and members of the general public.



Figure 2-1. Viewscapes of the Region of Influence. Images taken 12/06/2019.

### 2.3.2 AIR QUALITY

Newport News is located within the Hampton Roads Intrastate Air Quality Control Region (ACQR) which is the ROI for the proposed project. Regulatory areas are identified for each ACQR and are designated as an attainment area or non-attainment area for each of the criteria pollutants based upon whether it achieves or fails to meet the following National Ambient Air Quality Standard (NAAQS) established by the U.S. Environmental Protection Agency (USEPA) for the following six criteria pollutants: ozone (O3), which is measured as nitrogen oxides (NOx) and volatile organic compounds (VOCs); carbon monoxide (CO); nitrogen dioxide (NO2); sulfur dioxide (SO2); particulate matter, measured as equal to or less than 2.5 microns in diameter (PM2.5) and equal to or less than 10 microns in diameter (PM10); and lead. Hampton Roads is in attainment for all criteria pollutants, including a designated ozone attainment and emission control area for volatile organic compounds (VOCs) and oxides of nitrogen (NOx). Only areas designated by EPA as nonattainment/ maintenance for a NAAQS are subject to conformity requirements. Therefore, the Hampton Roads area is not subject to conformity requirements. Nonattainment areas are Air Quality Control Regions that are in violation of one or more of the NAAQS. Maintenance areas are Air Quality Control Regions that the USEPA previously designated as nonattainment area but have been subsequently designated as attainment and are subject to a maintenance plan.

The Clean Air Act Section 176(c)(4) established the General Conformity Rule, which USEPA implemented through rulemaking in 1993 and most recently amended in 2010 (75 FR 17253). The General Conformity Rule implements the Clean Air Act's requirement that Federal actions occurring in nonattainment and maintenance areas shall not hinder local efforts to control air pollution. Potential impacts to air quality in theROI are evaluated with respect to the extent and intensity of the impacts.

# 2.3.3 BATHYMETRY, HYDROLOGY, AND TIDAL PROCESSES

The project site is situated along the James River which is the largest river in Virginia. The James River is approximately 340 miles long and encompasses a watershed of 10,000 square miles. The James River is a partially mixed estuary with surface salinity ranging from approximately 15 to 26 parts per thousand (ppt) at the mouth of the James (Shen and Lin 2006). The project site is approximately 15 miles from the confluence of the James River and Chesapeake Bay with an average surface salinity of 14.6 ppt (Figure 2-2).

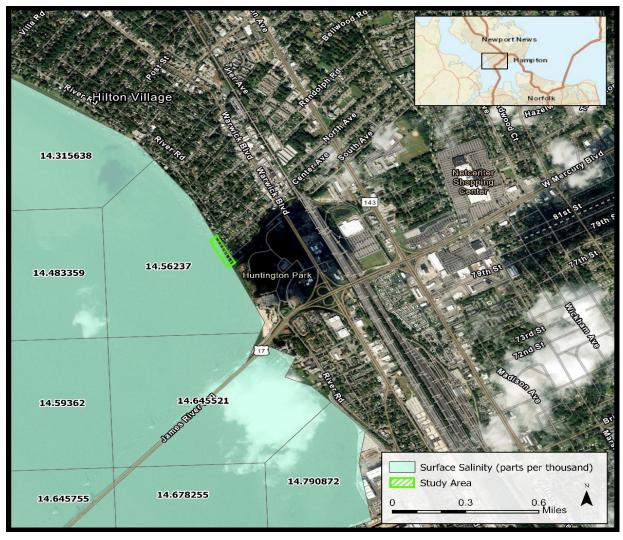


Figure 2-2. Average surface salinity in the vicinity of the Region of Influence.

The project site is approximately 12 miles from the nearest National Oceanic and Atmospheric Administration (NOAA) Tidal Benchmark Station located at Sewells Point, Virginia (Latitude: 36°56.8'N, Longitude: 76°19.8'W) which records daily hydrologic and oceanographic conditions including hourly water level data. The mean tidal range for the site is approximately 2.43 feet (Schnabel Engineering 2013). In 2017, the City of Newport News installed a tidewatch station at Leeward Marina, located less than one mile from the project site. The site has a fetch, or distance of water across which wind travels, of approximately 8 miles to the south, and approximately 4.5 miles southwest to Ragged Island Wildlife Refuge located on the southern bank of the James River in Isle of White County. The bathymetry adjacent to the project site is characterized by a shallow, nearshore environment as shown in Figure 2-3.

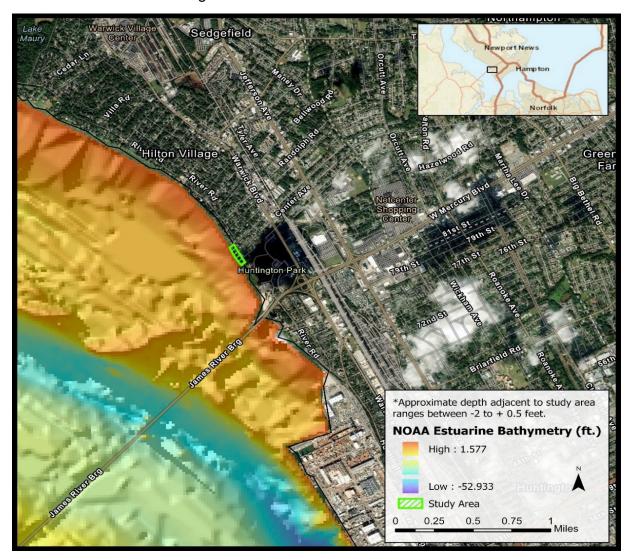


Figure 2-3. Bathymetry of the James River near the Project Site.

Subsurface explorations of the site conducted in 2013 identified groundwater at depths ranging 19.0 to 28.0 feet below the ground surface (Schnabel Engineering 2013). The following factors may contribute to fluctuations in groundwater levels:

precipitation, surface runoff patterns, pumping, tidal action, and river levels (Schnabel Engineering 2013).

# 2.3.4 CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. Major greenhouse gases include carbon dioxide, methane, nitrous oxide, and various synthetic chemicals. These emissions occur from natural processes and human

activities. The accumulation of GHGs in the atmosphere can influence the earth's temperature. Predictions of long-term environmental impacts due to global climate change include sea level rise (SLR), changing weather patterns with increases in the severity of storms and droughts, and changes to local and regional ecosystems including the potential loss of species.

Sea level rise is anticipated to accelerate due to global climate change. Scientists estimate sea level has risen approximately two times faster in the last two decades as compared to the 20th century (Strauss et al. 2014). Coastal flooding is anticipated to increase with SLR as higher sea level increases the potential for more severe storm surge. Storm surge is the increase in water level above the mean water level due to wind-driven water moving shoreward during a storm event.

Table 2-1 shows the computed SLC rates (relative to 1992) from the present year and the years that follow (through 2122). For further information, please refer to Section 5.5 in the Engineering Appendix, Appendix C.

Table 2-1. Estimated Increase in Relative Sea Level Rise Rates (in feet).

| NACCS MEAN (50%) WATER LEVELS ADJUSTED FOR SLR (USACE INTERMEDIATE CURVE) TO YEAR 2022,2042, 2072, and 2122 |       |      |      |      |           |
|---|-------|------|------|------|-----------|
|   |       |      |      |      | Year 2122 |
| Recurrance<br>(Yrs)   | ACE % | ft   | ft   | ft   | ft        |
| 1   | 100%  | 3.9  | 4.3  | 5.1  | 6.8       |
| 2   | 50%   | 4.6  | 5.0  | 5.8  | 7.6       |
| 5   | 20%   | 5.7  | 6.1  | 6.9  | 8.6       |
| 10  | 10%   | 6.5  | 7.0  | 7.8  | 9.5       |
| 20  | 5%    | 7.5  | 7.9  | 8.7  | 10.4      |
| 50  | 2%    | 8.9  | 9.3  | 10.1 | 11.8      |
| 100   | 1%    | 10.0 | 10.4 | 11.2 | 12.9      |
| 200   | 0.5%  | 11.1 | 11.5 | 12.3 | 14.0      |
| 500   | 0.2%  | 12.4 | 12.9 | 13.7 | 15.4      |
| 1000  | 0.1%  | 13.4 | 13.8 | 14.6 | 16.3      |
| 2000  | 0.05% | 14.2 | 14.7 | 15.5 | 17.2      |
| 5000  | 0.02% | 15.2 | 15.7 | 16.5 | 18.2      |
| 10000   | 0.01% | 15.9 | 16.3 | 17.1 | 18.9      |

<sup>\*</sup>Estimated Relative Sea Level Change from 1992 to 2122. 8638610, Sewells Point, Virginia. User Defined Rate: 0.0154 feet/yr. All values are expressed in feet relative to LMSL.

Several Federal laws and regulations have been established to manage cultural resources, including the National Historic Preservation Act (NHPA) of 1966, the Archaeological and Historic Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resource Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. In addition, Department of Defense (DoD) Instruction 4710.02, Department of Defense Interactions with Federally Recognized Tribes (2006), governs DoD interactions with Federally recognized tribes and Executive Order (EO) 13175, Consultation and Coordination with Indian Governments (2000), charges Federal departments and agencies with regular and meaningful consultation with Native American tribal officials in the development of policies that have tribal implications. In order for a cultural resource to be considered significant, it must meet one or more of the following criteria for inclusion on the NationalRegister of Historic Places (NRHP):

"The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: 1) that are associated with events that have made a significant contribution to the broad patterns of our history; or 2) that are associated with the lives or persons significant in our past; or 3) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or 4) that have yielded, or may be likely toyield, information important in prehistory or history" (36 CFR 60.4).

The Area of Potential Effect (APE) includes the approximate 600-foot stretch of shoreline where the project would be constructed and includes the immediate nearshore environment where disturbance during construction may occur. The Virginia Departmentof Historic Resources (DHR) has nine historic resources on record within a 1-mile radius of the project area (Table 2-2) and one recorded archaeological site which includes a shell midden from the Woodland Period (1200 B.C. – 1606 A.D.), located approximately 0.9 miles from the project site. There are no known archaeological resources within the APE, however, no Phase I Archaeological Survey has been conducted in this area.

Table 2-2. Historic Resources identified by the Department of Historic

Resources within one mile of Project Site.

| DHR Identification | Site Name                                     | Evaluation Status |
|--------------------|---|-------------------|
| Number             |   |                   |
| 121-0009           | Hilton Village Historic District              | NRHP Listing,     |
|                    |   | VLR Listing       |
| 121-5134           | CSX Railroad                                  | NRHP Eligible     |
| 121-0079           | Merci Box Car                                 | Not Evaluated     |
| 121-5005           | Blue Star Diner                               | NRHP Eligible     |
| 121-5455           | Hause Building                                | Not Evaluated     |
| 046-5002           | Bridge #1901, Route 17,<br>James River Bridge | Not Evaluated     |
| 121-5116           | Marine Corps Reserve Center<br>Newport News   | Not Eligible      |

### 2.3.6 FISHERY RESOURCES AND ESSENTIAL FISH HABITAT

# Fishery Resources

Approximately 350 species of fish are known to inhabit the Chesapeake Bay region, with only 32 species considered to be year-round residents of the Chesapeake Bay (Chesapeake Bay Program 2020). Resident fishes tend to be smaller than migratory species and are often found in shallow water, where they feed on a variety of invertebrates. Migratory fishes include both anadromous and catadromous species. According to the Virginia Department of Wildlife Resource's online database, Fish and Wildlife Information Service (VaFWIS), six species of anadromous fish may occur in the vicinity of the proposed project site. This includes the Federally listed Atlantic sturgeon (*Acipenser oxyrhynchus*)

described in further detail in Section 2.3.14 (Special Status Species), alewife herring (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), striped bass (*Morone saxatilis*), yellow perch (*Perca flavescens*) and hickory shad (*Alosa mediocris*).

At the southern extent of the project site and immediately adjacent to Government Ditch, there are existing shellfish resources, including the Eastern oyster (*Crassostrea virginica*), and Atlantic ribbed mussels (*Geukensia demissa*) established on the existing concrete debris in the intertidal zone (Figures 2-4 and 2-5).



Figure 2-4 and Figure 2-5. Eastern oyster and Atlantic ribbed mussels observed at the Proposed Project Site. Images taken 12/06/2019.

Public shellfish grounds managed by the Virginia Marine Resources Commission (VMRC) are located less than 0.75 miles from the project site and include an open harvest area for oysters in the Lower James River (Figure 2-6). Private leased oyster grounds are located in close proximity to the project site and are located approximately 0.1 mile offshore. The James River is the top producing tributary in the Chesapeake Bay for oyster harvesting including public, private, seed and market (personal communication A. Button 2020). The James River commercial industry landed 6.1 million pounds of seafood in 2018 with a total dockside value of \$21.4 million (JamesRiver Association 2019).

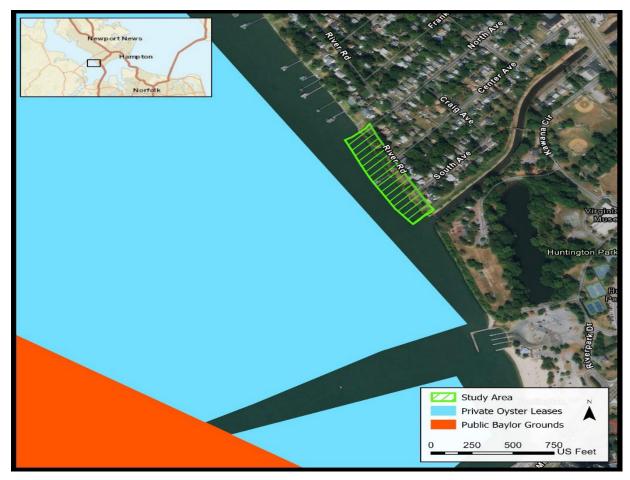


Figure 2-6. Public and Private Oyster Grounds in the vicinity of the Study Area.

## Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended October 11, 1996, requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration on all actions, or proposed actions, permitted, funded, or undertaken bythe agency, that may adversely affect Essential Fish Habitat (EFH). EFH is defined under the MSFCMA as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" and has been designated in the James River for eleven fish species. Only specific life stages occur within the river and would therefore be impacted by a project located within the system. The table below lists fishspecies and the specific life stage that might be impacted by the proposed project (NOAA 2020). The "NMFS Essential Fish Habitat Designations" section in the Environmental Appendix (Appendix A) also lists these species and their associated EFH.

Table 2-3. National Marine Fisheries Service Listed Fish Species with Essential Fish Habitat in the James River.

| Common Name            | Scientific Name          | Egg | Larvae | Juveniles | Adult |
|------------------------|--------------------------|-----|--------|-----------|-------|
| Atlantic butterfish    | Peprilus triacanthus     |     |        | Х         | Χ     |
| Black sea bass         | Centropristis striata    |     |        | Х         | Χ     |
| Sandbar shark          | Carcharhinus<br>plumbeus |     |        | X         |       |
| Sand tiger shark       | Carcharias taurus        |     |        |           | Х     |
| Bluefish               | Pomatomus saltatrix      |     |        | Х         | Χ     |
| Summer flounder        | Paralicthys dentatus     |     | Х      | Х         | Χ     |
| Windowpane<br>flounder | Scopthamus aquosus       |     |        | X         |       |
| Atlantic sea herring   | Clupea harengus          |     |        | Х         | Χ     |
| Red hake               | Urophycis chuss          | Х   | Х      | Х         | X     |
| Winter skate           | Leucoraja ocellata       |     |        |           | Х     |
| Little skate           | Leucoraja erinacea       |     |        |           | Х     |
| Clearnose skate        | Raja eglanteria          |     |        | Х         | Х     |

#### 2.3.7 FLOODPLAINS AND FLOOD RISK MANAGEMENT

For the purpose of the following discussion, floodplains is defined as any land area susceptible to being inundated by floodwaters from any source. The ROI is the project location floodplain areas along the James River where flooding has occurred in the pastor there is a potential for flooding, including tidal and/or rainfall events.

Through Executive Order (EO) 11988, Floodplain Management, federal agencies are required to evaluate all proposed actions within the 1-percent-annual-chance floodplain or Base Floodplain as defined by the Federal Emergency Management Agency (FEMA). Actions include any Federal activity involving 1) acquiring, managing, and disposing of Federal land and facilities, 2) providing Federally undertaken, financed, or assisted construction and improvements, and 3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, and licensing activities. In addition, the FEMA 0.2-percent-annual-chance floodplain should be evaluated for critical actions or facilities, such as storage of hazardous materials or construction of a hospital.

USACE Engineering Regulation (ER) 1165-2-26 - Implementation of EO 11988 on Flood Plain Management. This regulation sets forth general policy and guidance for USACE implementation of EO 11988 as it pertains to the planning, design, and construction of Civil Works projects and activities under the Operation and Maintenanceand Real Estate Programs. As shown in ER 1165-2-26 and in accordance with EO 11988, USACE uses an eight-step process as part of the decision-making for projects that have potential impacts to or are within the Base Flood Plain. The eight steps and project-specific responses for EO 11988 are discussed further in Chapter 9 (Environmental Compliance).

The project area is subject to tidal flooding and rainfall events. The City of Newport News can experience nuisance type or minor tidal flooding during an astronomical high tide, particularly when the tide is highest during a Spring tide cycle, sometimes referred to as a King Tide. Severe or major tidal flooding usually occurs during tropical systems and nor'easters. Flooding can be short term in duration or long term. For tropical events, peak tidal flooding from storm surge will typically last during one tide cycle. When tropical events reach the mid-Atlantic latitude, they start to move faster in forward speed. On the other hand, nor'easters are usually slow moving and large in size, produce large amounts of rainfall, and high-water levels from storm surge can stay elevated above normal tide cycles for long periods of time. In addition to high tide levels and storm surge, persistent wave action and onshore winds can greatly impact shoreline and bank erosion.

Rainfall events can also cause erosion problems to the project area. Impervious surface areas from roads and development can produce increased runoff and overland flow that may cause bank erosion, also considering the high embankment and side-slope. Steady rainfall that occurs over a multi-day/week period or from back-to-back weather events can cause the ground to become over saturated and unable to absorb water, thus increasing the amount of rainfall runoff and possible bank erosion. Being located near the mouth of the James River, upstream river inflows will have minimal impact for shoreline and bank erosion as compared to storm surge and wave action from tropical and nor'easter events.

The NOAA Sewells Point tide gage went into service in 1927, located near the mouth of the James River and Hampton Roads Harbor, at the Norfolk Naval Base, Norfolk, Virginia. Since 1927, historical high-water tidal flood events have mainly been from tropical storms, weak Category 1 hurricanes, or nor'easters; the area has not experienced a major hurricane on official record. At the Sewells Point gage, before Hurricane Isabel in 2003, the 1933 August Hurricane and 1962 Ash Wednesday Nor'easter were the highest tidal flood events on record, 6.4 and 5.6 feet (stillwater), respectively, referenced to the North American Vertical Datum of 1988 (NAVD88). Whilethe 1933 Hurricane is still the flood of record at Sewells Point, Hurricane Isabel produced a near equal storm tide at 6.3 feet, NAVD88. Note, considering sea level rise, if the 1933 Hurricane would have occurred today, the maximum water level would be about a foot higher. Other more recent notable tidal events and their maximum stillwater levels, from highest to lowest, recorded at Sewells Point include Nor'easter Ida in November 2009 at 6.1 feet, Hurricane Irene in August 2011 at 5.9 feet, Hurricane Sandyin October 2012 at 5.2 feet, and a nor'easter in November 2006 at 5.0 feet, all referenced to NAVD88. Similarly, for all the events mentioned above, the following also had rainfall amounts at approximately 10 inches: Nor'easter Ida, Hurricane Irene, and Hurricane Sandy. The last major costal event was October 16, 2016,

Hurricane Mathew, where the maximum storm tide elevation at Sewells Point was 4.3 feet, NAVD88 and rainfall at approximately 10 inches, with some locations in nearby communities receiving up to 15 inches or more of rainfall (NOAA 2020a,b).

Executive Order 11988 references the FEMA 1- and 0.2-percent-annual-chance floodplains. The 1-percent-annual-chance floodplain is also referred to by FEMA as the Base Floodplain. The City of Newport News effective FEMA Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRM) are dated December 9, 2014. The project area is located within the effective Base Floodplain and 0.2-percent-annual-chance floodplain. From the figure below, using FEMA's National Flood Hazard Layers (FEMA 2014), the Base Floodplain is shown in blue color and the 0.2-percent-annual-chance flood plain is orange color. The Base Flood Elevation is shown at elevation 12 feet, NAVD88, which is Flood Zone VE and includes wave action. From Coastal Transect number 10 shown in the lower right of the figure, as shown in the FIS report, the Base Floodplain and 0.2-percent-annual-chance stillwater (no wave action) elevations are 7.3feet and 8.5 feet, NAVD88, respectively.

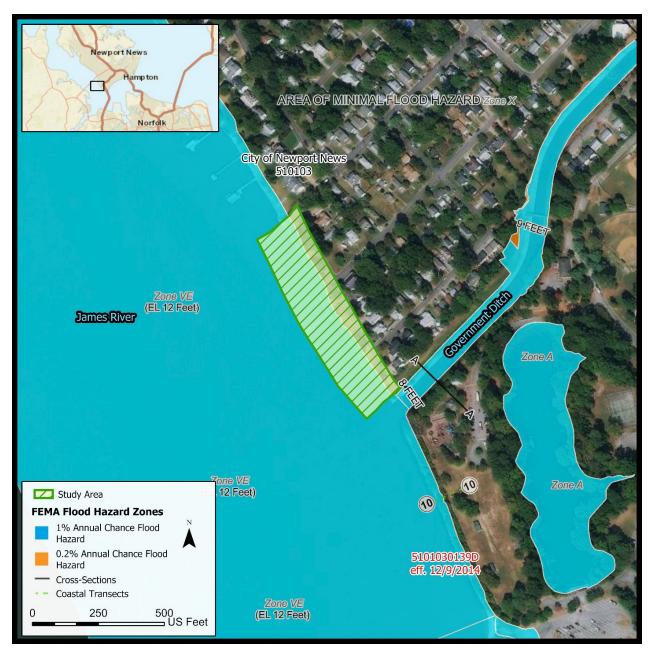


Figure 2-7. Effective 2014 FEMA 1- and 0.2-Percent-Annual-Chance Floodplains.

# 2.3.8 GEOLOGY, PHYSIOGRAPHY, AND TOPOGRAPHY

The project site is located within in the Virginia Coastal Plain Physiographic Province (Figure 2-8). The topography of the Coastal Plain is a terraced landscape that stair- steps down to the coast and to the major rivers. The coastal lowland sub-province is alow-relief region along the major rivers and surrounding the Chesapeake Bay, at topographic elevations between zero and 60 feet above mean sea level.

The ROI includes the approximate 600-foot section of James River Shoreline that consists of an approximate 25-foot eroding bluff. The regional geology of the project site

consists of the Norfolk Formation characterized by the following: fluvial and estuarine beach and nearshore marine sand, clayey sand, organic silt, peat, and clay (Schnabel Engineering 2013). Beneath the Norfolk Formation is the Miocene Age deposits of the Yorktown Formation which are characterized by silty and clayey sands mixed with shell fragments (Schnabel Engineering 2013).

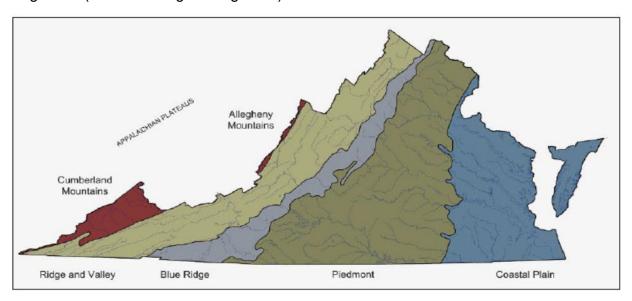


Figure 2-8. Physiographic Provinces of Virginia (Virginia Department of Conservation and Recreation 2016).

Subsurface exploration of the site in 2013 indicate the following general strata types: Stratum A (depths of 0.2 to 12.8 feet) consisting of sand and gravelly sand mixtures with varying amounts of gravel, silt and clay, Stratum B (depths, of 13.8 feet to 15.6 feet) consisting of silt mixtures with varying amounts of clay, gravel, sand and organics, and Stratum C (15.6 feet to 28.1 feet) consisting of clays with varying amounts of sand, gravel, and silt.

The 600-foot stretch of shoreline would be considered a high bank type of shoreline, one of the six basic types of tidal shorelines characteristic of the Chesapeake Bay (Hardaway and Byrne 1999). High bank shorelines are identified where upland elevationis greater than 10 feet above mean low water. Erosion occurs at the shoreline as well as higher on the bank as a result of the combined effects of wave and storm surge action during storm events in which wave undercutting can threaten the higher bank (Schnabel Engineering 2013). The northern banks of the James River may experience an erosion rate of approximately 0.45 feet per year along the northern banks of the James River (Hardaway and Anderson 1980).

Topographic surveys of the site were conducted in 2013 and included six cross-sections beginning 20 feet landward from the top of the bank extending seaward to five feet below mean low water. The cross-shore profiles identified a slope ranging from 1:3 to 1:4 with a berm crest at approximately +25 feet NAVD88 (Schnabel Engineering 2013). Substrate types for the James River are identified in Figure 2-9. Benthic substrate types in the James River in the vicinity of the Study Area.

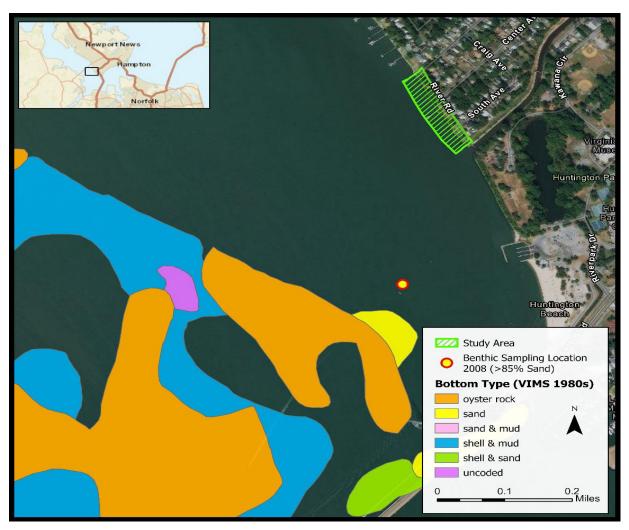


Figure 2-9. Benthic substrate types in the James River in the vicinity of the Study Area.

## 2.3.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

Hazardous and/or toxic wastes, classified by the Resource Conservation and Recovery Act (RCRA) are materials that may pose a potential hazard to human health or the environment due to quantity, concentration, chemical characteristics, or physical characteristics. Radioactive waste is the radioactive by-products from the operation of a nuclear reactor from the reprocessing of depleted nuclear fuel; however, there is no history of radioactive waste occurring in or near the project site; therefore, it is dismissed from further evaluation.

The ROI includes an approximate 3-mile radius from the proposed project. The National Priorities List (NPL) established by Section 105(a)(8(B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended, establishes a list of national priority waste sites known to release or threaten to release hazardous substances, pollutants, or contaminants. According to the NPL, there are no NPL locations within the ROI.

The Toxic Chemical Release Inventory System (TRIS) identifies facilities that release toxic chemicals to the air, water, and land and provides information and trends in releases, waste management practices, and pollution prevention activities. Near the ROI, Huntington Ingalls Incorporated, a ship and boat building facility, located at 4101 Washington Avenue in Newport News, is the closest facility Toxic Release Inventory (TRI) facility located approximately 2.5 miles downstream of the proposed project site. There are two other land-based TRI facilities occurring within a 3-mile radius including: Marva Maid Dairy located at 5500 Chestnut Ave and Tidewater Wood Products LLC located at 5064 City Line Road in Hampton. A review of the Virginia DEQ's Interactive Mapper Tool, which includes the identification of reported petroleum release sites in Virginia, indicated there have been no recent petroleum releases reported in the JamesRiver within 3 miles of the project site. The closest solid waste facility is Bay Disposal LLC located approximately 3 miles inland of the project site at 310 East Street in Hampton. Camp Hill (FUDS Identification Number: C03VA0069) is located in close proximity to the project site and adjacent to Huntington Park. This site eligible for inclusion in the Formerly Used Defense Site (FUDS) Cleanup Program.

### 2.3.10 NOISE AND VIBRATION

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium and are sensed by the human ear. Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities of humans and wildlife. The human environment is generally characterized by a certain consistent noise level referred to as ambient, or background noise. The response of individuals to noise events is diverse and influenced by the type of noise; perceived importance of the noiseand its appropriateness in the setting; time of day and type of activity during which the noise occurs; and sensitivity of the individual. Noise impacts result from perceptible changes in the overall noise environment that increase "annoyance" or affect human health. Human health effects such as hearing loss, sleep disruption, disruption of daily activities, changes in cognition and mood can all result from noise impacts, often referred to as "noise annoyance" (Basner 2013).

Noise can be intermittent or continuous, steady or impulsive, and it may be generated by either mobile of stationary sources, and changes in noise are typically measured andreported using a weighted sound intensity (or level), which represents sound heard by the human ear and is measured in units called decibels. The normal human ear can detect sounds that range in frequency from about 20 Hz to 20,000 Hz. However, all sounds in this wide range of frequencies are not heard equally well by the human ear, which is most sensitive to frequencies in the range of 1,000 Hz to 4,000 Hz. In humans, noise levels can range from about 10 dBA for normal breathing, to 120 dBA for anambulance siren, and as much as 150 dBA for a jet engine taking off.

The USEPA's Noise Control Act of 1972 (42 U.S.C. 4901 to 4918) as amended by the Quiet Communities Act of 1978, states that the policy of the United States is to promotean environment for all Americans free from noise that jeopardizes their health or welfare (USEPA 1996). The USEPA generally recognizes an average day-night noise level of less than 50 A-weighted decibels (dBA) (USEPA 1978) for rural areas and between 55 and 60 dBA for urban areas.

The ambient noise environment in the ROI is characteristic of a residential community. Noise events are associated with motor vehicles, utility work in the vicinity of River Road, and vessels and small boat traffic, including commercial traffic, transiting the James River. The James River Bridge is approximately 0.5 miles downstream of the project site and the distant sound of vehicular traffic, which may vary depending on wind conditions, contributes to the existing ambient noise environment.

### 2.3.11 OCCUPATIONAL HEALTH AND SAFETY

The existing project site conditions are characterized by an eroding shoreline with a steep embankment that could potentially pose a threat to public safety. There is no public access to the shoreline. Risk factors associated with the occupational health and safety (OHS) environment are primarily associated with the future construction of the project and would include operation of heavy equipment, placement of materials, and potential exposure to environmental elements. Given the existing site constraints which include a steep shoreline and limited access points, potential hazards would involve the mobilization and demobilization of equipment, land disturbance, and construction of the project.

#### 2.3.12 RECREATION

The project site is situated in a Newport News residential neighborhood. Recreational activities that may occur in the ROI on the landward portion of the project may including include walking and cycling. Recreational activities occurring in nearshore portions of the ROI may include walking, cycling, fishing, boating, or kayaking.

Huntington Park is located across from the project site on the opposite side of Government Ditch and includes a scenic park, playground and is also the location of the Virginia War Museum. The Huntington Park Municipal Boat Ramp and Beach are located approximately 0.25 miles south of the project site.

# 2.3.13 SOCIOECONOMICS

The ROI for socioeconomics is the City of Newport News which covers approximately 120 square miles. Newport News has a population of 180,145 individuals with a povertyrate of 15.5%, a median household income of \$51,884, a minority population of 56%, and 12% of the population over 64 years of age (U.S. Census Bureau 2020). The project site is located within census block group 517000315002 which has a population of approximately 2,178 individuals of which approximately 20% are low income, 4% areminority, and 7% are over age 64. Major employers in the City of Newport News includeHuntington Ingalls Industries, Riverside Health System, Army and Air Force Exchange Service, Canon Virginia, Jefferson

Lab, Continental, United Parcel Service, and Ferguson Enterprises/Wolseley North America, and High Liner Foods, Inc.

#### 2.3.14 SPECIAL STATUS SPECIES

Animals and plants listed as endangered or threatened are protected under the Endangered Species Act of 1973, as amended (ESA). According to the ESA, "endangered species" is defined as any plant or animal species in danger of extinction throughout all or a substantial portion of its range. A "threatened species" is any specieslikely to become an endangered species in the foreseeable future throughout all or a substantial part of its range. "Proposed Species" are animal or plant species proposed in the Federal Register to be listed under Section 4 of the ESA. "Candidate Species" are species for which the U.S. Fish and Wildlife Service (USFWS) and NMFS have sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA. Critical habitat is designated per 50 CFR parts 17 or 226 and defines those habitats that are essential for the conservation of a federally threatened or endangered species and that may require special management and protection. The project site is located in critical habitat designated for the Atlantic sturgeon.

According to search results from the VaFWIS, 39 species, including the afore mentioned federal species, with a Tier I or Tier II status are known or likely to occur within a 3-mile radius of the ROI (VDGIF 2020). Tier I species are considered by VDGIF of critical conservation need while Tier II are considered species that are of very high conservation need.

The section of the James River which includes the ROI supports the following species protect under the Endangered Species Act: the northern long-eared bat (*Myotis septentrionalis*) under the jurisdiction of the USFWS, and the Atlantic sturgeon (*Acipenser oxyrinchus*), shortnose sturgeon (*Acipenser brevirostrum*), leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*), hawksbill sea turtle (*Eretmochelys imbricata*), and loggerhead sea turtle (*Caretta caretta*) under the jurisdiction of the NMFS.

Northern long-eared bats roost underneath bark, in cavities, or in crevices of live and dead trees in the summer and spend winters hibernating in large caves or mines known as hibernacula. Suitable habitat for this species includes trees with trunk diameters of three inches or more with shag bark and crevices. No site surveys for the northern long-eared bat have been conducted at the project site; however, given the sparseness of trees within the project site, northern long-eared bats are not anticipated to be present.

Atlantic sturgeon spawn in the James River, and this portion of the lower river may serve as a staging area for spawning adults. Although Atlantic sturgeon early life stages are not expected to be present in the brackish conditions of the project site, juveniles, sub-adults and adults may be present. Sea turtles are transient to the area and may occur seasonally in warmer weather months to forage. There is no suitable nesting habitat for sea turtles in the vicinity of the project site. For a discussion of potential impacts to special status species, please refer to Appendix A.

## 2.3.15 VEGETATION, WETLANDS, AND SUBMERGED VEGETATION

The ROI includes the nearshore estuarine environment adjacent to the project site and the adjacent uplands areas bordering River Road. Existing trees on the upland are primarily black locust trees (*Robinia pseudoacacia*). The invasive, common reed (*Phragmites australis*) is present onsite in small patches at mid-bank height indicative of potential groundwater seepage. The amount of woody vegetation observed from the top to bottom of the high bank indicates relative bank stability and not active bank face erosion. (Figure 2-10).



Figure 2-10. Upland vegetation present at the project site. Image taken 12/06/2019.

No tidal marsh vegetation has been mapped for the existing area based on the Virginia Institute of Marine Science (VIMS) tidal marsh inventory. Additionally, the project site is characterized by large quantities of various materials including concrete slabs, rubble, and brick foundation pieces which are present along the intertidal shoreline for the entire stretch of the project area (Figure 2-11). Based on a review of the VMRC's online Chesapeake Bay Map, there is no Submerged Aquatic Vegetation present in the vicinity of the project site.



Figure 2-11. Existing material present along shoreline in the project area. Image taken 12/06/2019.

#### 2.3.16 WATER QUALITY

More than 150 major rivers and streams flow into the Chesapeake Bay's 64,299 square mile drainage basin. The watershed covers parts of six states from New York, Pennsylvania, Delaware, Maryland, Virginia and West Virginia, as well as the District of Columbia. The ROI includes the shoreline of the James River and its tributaries that discharge near the project site in Newport News, Virginia. The ROI includes areas outside of the project where water quality impacts such as increased levels of Total Suspended Solids (TSS), turbidity, and potentially nutrient fluctuations may occur. The geographic extent of water quality impacts is dependent upon factors such as the type of project and equipment used, and environmental conditions such as wind and currents (USACE 1983). The Chesapeake Bay is a slightly stratified estuary which forms where tidal activity is strong and river volume is moderate.

## Impaired Waterways

The USEPA established a Total Maximum Daily Load (TMDL) for the Chesapeake Bay watershed on December 29, 2010. The TMDL identified the nitrogen, phosphorus, and sediment reductions that each Bay jurisdiction needs to achieve in order for the Chesapeake Bay to meet water quality standards. The determination whether the Commonwealth's waters support their applicable designated uses as mandated by Section 305(b) of the Clean Water Act is made by DEQ and reported annually to EPA based on monitoring data. There are six designated uses that may be applied to surface waters: aquatic life, fish consumption, shellfish, recreation, public water supply, and wildlife.

Virginia's water quality standards define the water quality needed to support each of these uses by establishing the numeric criteria for comparison of physical and chemical data. If a waterbody contains more of a pollutant than is allowed by the water quality standards, it will not support one or more of its designated uses. Such waters are considered to have an "impaired" quality. An "impairment" refers to an individual parameter or characteristic that violates a water quality standard. The quality of the surface waters in the ROI is dependent upon the water quality of the tributaries draining into the watershed.

The Warwick River is 14.4 miles long within the City of Newport News and empties into the James River approximately seven miles north of the project site and is impaired for fecal bacteria. The Warwick River can be divided into three sections in regard to water quality; the upper and middle tidal portions are impaired for fecal coliform and the lower tidal portion is impaired for Enterococcus. The lower portion is within the ROI. Newmarket Creek drains into the James River north of the project site after running 3.96 miles through the cities of Newport News and Hampton. Newmarket Creek listed as impaired in 2006 for aquatic use due to low dissolved oxygen levels. The upper 2.01 miles of the river, prior to tidal influence, tested for high pollution loads of E. coli (DEQ 2018).

The portion of James River in the ROI is listed as an impaired area for the lack of submerged aquatic vegetation and benthic community use. Figure 2-12 indicates the locations and descriptions of these impairments for 2018.



Figure 2-12. Location of Impaired Waters Adjacent to Study Area.

#### 2.3.17 WILDLIFE

Avian wildlife including migratory birds, raptors, ducks, geese, and songbirds, may be present within the ROI. Although not a Bird of Conservation Concern, the Bald Eagle (*Haliaeetus leucocephalus*) also has the potential to be present in the area and is protected under the Bald and Golden Eagle Protection Act. According to the Center for Conservation and Biological Diversity, no known active bald eagle nests have been reported in the Study Area (Figure 2-13). The closest reported bald eagle nest is approximately 2 miles to the northwest of the project site (CCB Mapping Portal 2020;

Watts and Byrd 2013). Small mammals, amphibians, and reptiles may also be present in the ROI.



Figure 2-13. Bald Eagle Nesting Locations in vicinity of Study Area. (CCB Mapping Portal 2020; Watts and Byrd 2013).

In addition to the bald eagle, the following migratory bird species protected under the Migratory Bird Treaty Act have the potential to occur in the vicinity of the project site: American Oystercatcher (*Haematopus palliates*), black skimmer (*Rynchops niger*), cerulean warbler (*Dendroica cerulea*), least tern (*Sterna antillarum*), prothonotary warbler (*Protonotaria citrea*), red-headed woodpecker (*Melanerpes erythrocephalus*), red-throated loon (*Gavia stellata*), ruddy turnstone (*Arenaria interpres morinella*), andrusty blackbird (*Euphagus carolinus*).

#### 2.3.18 TRANSPORTATION

The proposed project site is located at the terminus of a residential neighborhood along the James River. Existing roadway uses include residential vehicular traffic and pedestrian/bike access. Given the location, vehicular traffic is anticipated to be sporadic throughout the day and likely attributed primarily to the residents along River Road entering and exiting the neighborhood; however, utility vehicles and City of Newport News public works vehicles may also utilize the existing roadway on an occasional basis.

#### 2.4 DEVELOPMENT OF ALTERNATIVE PLANS

Per ER 1105-2-100, the formulation and evaluation of plans in CAP Section 14 studies should focus on the least cost alternative solution. The least cost alternative plan is considered to be justified if the total cost of the proposed alternative is less than the cost to relocate the threatened facility.

#### 2.4.1 INITIAL MEASURES

Nine shoreline stabilization measures were considered in this study to reduce the risk to River Road and the utilities in the vicinity caused by bank erosion:

- 1. Vertical steel sheet piling, which are long structural sections with a vertical interlocking system that create a continuous wall to retain soil or water.
- 2. Rock sill to stabilize the slope base, which consists of a sill that is a rock structure that is placed parallel to the shore so that a marsh can be contained.
- 3. Vegetated slope, which would provide stability by the ability of the plant life growing on slopes to prevent erosion of the slope.
- 4. Rock-filled timber crib walls, which creates a framework of large timbers, or concrete, that are filled with rock that secures a fence post without having to set it into the soil. This system holds/retains material in place to stop and control the erosion process.
- Stone revetment, which is the placement of rock along the bank/shoreline to absorb or deflect incoming wave energy in order to minimize and mitigate erosion.
- 6. Living shoreline, a protected stabilized coastal edge made of natural materials such as native plants, sand, or rock. Unlike a concrete sea wall or other hard structure, which impede the growth of plants and animals, living shorelines grow over time and provide valuable habitat that enhances coastal resilience.

- 7. Precast modular retaining walls, with consist of modular precast concrete units and select backfill. The system is a simple proven solution for grade separation on highways, bridges, railroads, or water.
- 8. Longitudinal peaked stone toe protection, which is a stone structure consisting of well sorted, self-launching stone built on the toe of an eroding bank.
- Breakwaters, which are barriers usually constructed with rock that are built out into a body of water parallel to the shoreline to protect a coastline from the force of waves.
- 10. Relocating the road and utilities was also considered as a non-structural measure.
- 11. No action, or the future without project condition, was also considered.

#### 2.4.2 SCREENING OF MEASURES

The initial array of alternatives was developed early in the planning process. The team evaluated measures based on the criteria listed in Table 2-4. If the proposed measure satisfied project objective, and avoided the two identified constraints, it was carried forward for further consideration. Additional justification for screening out or carrying forward the measures is also provided following Table 2-4.

Table 2-4. Screening Measures for the Initial Array of Alternatives.

| Measure(s)                                       | Objective 1 Stabilize eroding shoreline | Constraint 1  Not induce erosion right or left | Constraint 2<br>enviromental and<br>cultural impacts |
|--|---|--|--|
| 1) Vertical sheet piling                         | X                                       |  |  |
| 2) Rock sill to sabilize base of slope           | X                                       | X  | X  |
| 3) Vegetated slope                               | X                                       | X  | X  |
| 4) Rock-filled timber cribs                      | X                                       |  |  |
| 5) Stone revetment                               | X                                       | X  | X  |
| 6) Vegetative erosion control (Living Shoreline) | X                                       | X  | X  |
| 7) Precast modular retaining walls               | X                                       |  |  |
| 8) Longitudinal peaked stone toe protection      | X                                       | X  | X  |
| 9) Breakwaters                                   | X                                       |  |  |

- Vertical steel sheet piling was screened out because it would be cost prohibitive in that it would exceed the cost of the road relocation or that it would exceed the total cost allowed for a CAP Section 14;
- 2. Rock sill to stabilize to stabilize base of slope was carried forward because this is a typical measure that is used to solve similar study problems and is generally cost effective;
- Vegetative Slope was carried forward because this is a typical measure used to solve similar study problems and is generally cost effective;
- 4. Rock-filled timber cribs was not carried forward due to the fact that the structure would need to be replaced after 25 years (halfway through the 50-year period of analysis) and would not be cost effective;
- 5. Stone Revetment was carried forward because this is a typical measure used to solve similar study problems and is generally cost effective:
- 6. Vegetative erosion control (living shoreline) was carried forward but had some concern due to the 5 years of monitoring (cost concern) and long fetch, but it has been used along the James River for other projects;
- 7. Precast modular retaining walls were not carried forward due to the environmental (vegetation or habitat) resources that could be impacted. These impacts could be mitigated but that mitigation cost would likely increase the cost of the measure so that it exceeds the cost limit allowed for CAP Section 14;
- 8. Longitudinal peaked stone protection was carried forward because this is a typical measure used to solve similar study problems and is generally cost effective; and
- 9. Breakwaters were not carried forward due to the combination of three factors: 1) required modeling that would likely put the cost over the cost limit allowed for CAP Section 14; 2) breakwaters do

not reduce wind erosion; and 3) breakwaters could impact the existing piers and the additional real estate cost associated with those impacts would likely put the cost over the cost limit allowed for CAP Section 14.

The measures that provided the "best protection with the least amount of disruption to the environment for the longest life span and for a reasonable budget" were carried forward. A summary of measures screening is shown in Table 2-5.

Table 2-5. Summary of Measures Screening

| Measure Description                           | Carried<br>Forward? | Notes  |
|---|---------------------|--|
| Vertical steel sheet piling                   | N                   | Cost criterion - prohibitive   |
| Rock sill to stabilize base of slope          | Y                   | Typical measure used to solve similar study problems                             |
| Vegetated slope                               | Y                   | Typical measure used to solve similar study problems                             |
| Rock-filled timber cribs                      | N                   | Lifecycle criterion – 25 years   |
| Stone revetment                               | Y                   | Typical measure used to solve similar study problems                             |
| Vegetative erosion control (Living Shoreline) | Y                   | 5 years monitoring (cost concern), long fetch, previously used along James River |
| Precast modular retaining walls               | N                   | Environmental/ EN Feasibility criteria   |
| Longitudinal peaked stone toe protection      | Y                   | Typical measure used to solve similar study problems                             |
| Breakwaters                                   | N                   | Requires modeling, doesn't combat wind erosion, real estate issues               |

#### 2.5 ALTERNATIVE FORMULATION

Alternatives include one or more management measures functioning together to address the planning objectives. Only alternatives that were practical in terms of the engineering, economic, environmental, and social impacts were developed and included the measures carried forward in Table 2-4. Relocation of the road and utilities, the no action alternative (future without project), and four action alternatives with various means of protecting the bank from erosion. The alternatives included in the initial array are discussed below:

- <u>Relocation of Road and Utilities:</u> Involves relocating public utilities and relocating the road. The baseline to which the cost of all other alternatives are compared;
- Alternative 0: Is the No Action/Future Without Project Alternative; and
- Alternative 1: Rock Sill with Vegetated Slope. This will consist of the entire slope being graded back to a 1V:3H slope, placement of VDOT Class III rip rap on top of VDOT number 1 stone and filter fabric at the toe (see Figure 2-14)

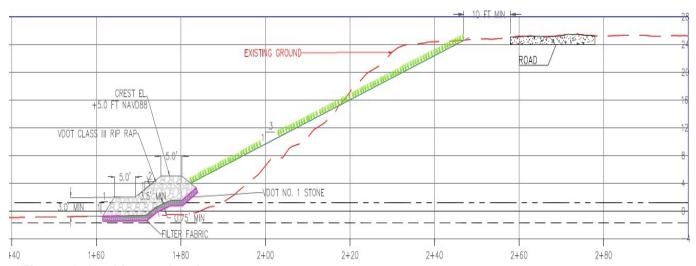


Figure 2-14. Alternative 1

 Alternative 2: Full Rock Revetment. This consists of re-grading the slope to a 1V:3H slope, placement of filter fabric, placement of VDOT number 1 stone, and the placement of VDOT Class III rip rap (see Figure 2-15).

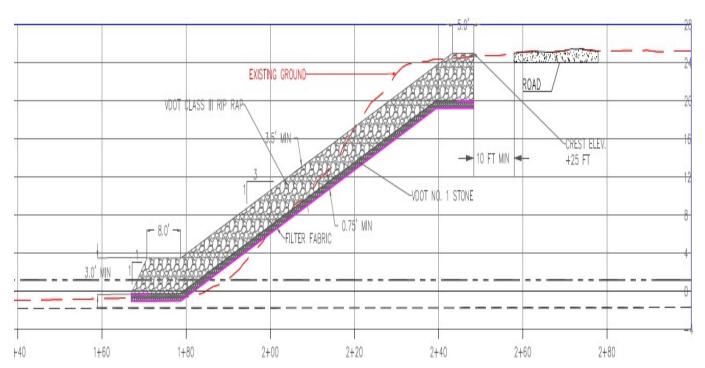


Figure 2-15. Alternative 2.

<u>Alternative 3:</u> Partial Rock Revetment with vegetated slope. This consists of regrading the slope to 1V:3.5H slope that will be vegetated, placement of filter fabric with VDOT number 1 stone, and topped with VDOT Class III rip rap (see Figure 2-16. Alternative 3.).

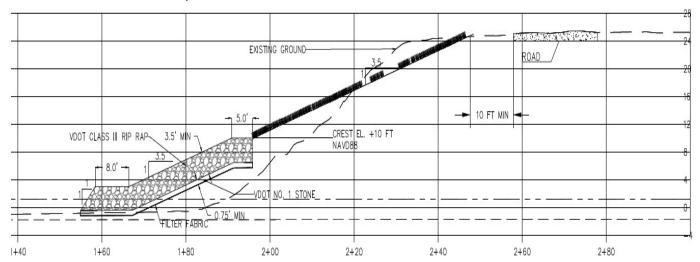


Figure 2-16. Alternative 3.

Alternative 4: Living Shoreline with vegetated slope. This consists of re-grading a portion of the slope to a 1V:4H, then transition to a 1V:10H for wetland planting, placement of filter fabric, VDOT number 1 stone topped with VDOT Class III rip rap (see Figure 2-17. Alternative 4.).

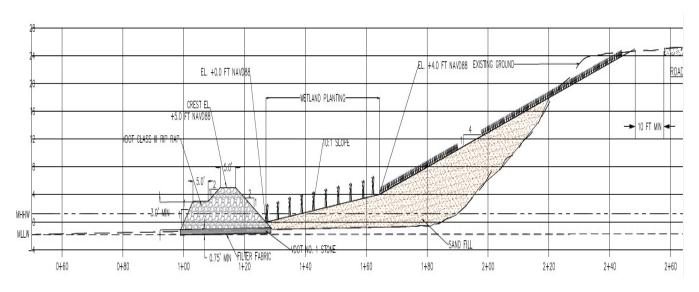


Figure 2-17. Alternative 4.

# 3 EVALUATION AND COMPARISON OF ALTERNATIVES

In accordance with Engineering Regulation 1105-2-100, the recommended plan is considered to be justified if it is the least cost of all alternative streambank protection plans and is also less than the cost to relocate the threatened facilities.

#### 3.1 SCREENING OF PRELIMINARY ALTERNATIVES

Alternatives 2, 3, and 4 were screened from further consideration since these alternatives were found to have significantly higher costs than Alternative 1. Based onthe economic analysis shown in table 3-1 below, Alternative 1 is the least cost alternative and also meets the project objective of protecting the facilities at risk.

#### 3.2 FINAL ALTERNATIVES FOR EVALUATION AND CONSIDERATION

Remaining alternatives include relocation of the road and utilities, Alternative 0 (no action), and Alternative 1. Alternative 1 was studied further as the least cost alternative that would meet the study's objective of reducing the risk of erosion to the road and utilities.

#### 3.2.1 RELOCATION OF ROAD AND UTILITIES

River Road and utilities at risk could be relocated further away from the shoreline so they are no longer at risk from erosion. The road would have to be relocated far enough that the risk of erosion is addressed but that there is continued access the homes in that area. Relocating the road is the baseline to which all other alternative costs are compared.

### 3.2.2 ALTERNATIVE 0: NO ACTION/FUTURE WITHOUT PROJECT ALTERNATIVE

There would be no federal action. The shoreline would not be stabilized and erosion would continue to threaten the existing utilities and River Road. The No Action Alternative is the baseline to which environmental effects are compared and is also the future without project condition.

## 3.2.3 ALTERNATIVE 1: ROCK SILL WITH VEGETATED SLOPE

Alternative 1 consists of the following:

- Longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88);
- Re-grade the earthen slope berm to 1V:3H. Remove 700 cubic yards of debris;
- Place 4300 cubic yards of fill where needed;
- Place 1600 square yards of geotextile filter fabric under 2900 tons of VDOT Class III rip rap and 800 tons of VDOT number 1 stone; and
- The vegetated slope portion will receive 35,000 square feet of seed to stabilize the earthen slope.

## 3.2.4 COMPARISON OF ALTERNATIVES

Table 3-1 below compares the relocation alternative with alternatives 1, 2, 3, and 4. Alternative 1 is the least cost alternative and the Recommended Plan.

Table 3-1. Comparison of the No Action Alternative with Alternatives 1, 2, 3, and

4.

| Cost Description  | (A1) Rock<br>Sill with<br>Vegetated<br>Slope | (A2) Full Rock<br>Revetment | (A3) Partial<br>Rock<br>Revetment<br>with Vegetated<br>Slope | (A4) Living<br>Shoreline with<br>Vegetated<br>Slope | Relocation of<br>Road and<br>Utilities |
|---|--|-----------------------------|--|---|--|
| ROM Construction Cost with 30% contingency              | \$2,113,000                                  | \$2,447,000                 | \$2,865,000  | \$2,932,000   | \$4,319,000                            |
| Real Estate (LERRD)                                     | \$647,000                                    | \$83,000                    | \$83,000   | \$95,000  | \$4,489,000                            |
| Compensatory Mitigation                                 | \$0  | \$0                         | \$0  | \$0   | \$0                                    |
| Planning, Engineering, and<br>Design (PED)              | \$358,000                                    | \$490,000                   | \$572,000  | \$589,000   | \$862,000                              |
| Construction Management (CM) (20% of construction cost) | \$364,000                                    | \$489,000                   | ¢572,000   | <b>\$596,000</b>                                    | \$863,000                              |
| TOTAL   | \$3,481,000                                  | \$3,509,000                 | \$572,000<br>\$4,092,000                                     | \$586,000<br>\$4,202,000                            | \$10,533,000                           |

- 1 Source: Project First Cost Summary prepared 09 July 2021; and
- **2** FY21 Federal Discount Rate of 2.5%.

Operations and Maintenance (O&M) costs are not included in the table above. The non-federal Sponsor is responsible for 100% of the O&M costs, per ER 1105-2-100 Appendix G Section III F-23.

# Average Annual Costs v. Average Annual Benefit

The least cost alternative plan is considered to be justified if the total cost of the proposed alternative is less than the cost to relocate the threatened facility. In this case, the average annual cost (AAC) of the relocation alternative was compared to the AAC of Alternative 1. Interest during construction was computed assuming mid year payments intervals for a construction period of twelve months. Considering the construction period, yearly construction period expenditures, a fiscal year 2021 discount rate of 2.5 percent, the amount of interest which would accrue during the construction period was calculated to total \$37,000.

Table 3-2. AAB v. AAC

| 145.00 2174.15 1174.10                      |                 |
|---|-----------------|
| AAC - Alt 1 v. Relocation                   |                 |
| Average Annual Benefit (Relocation of Road) | 575,000         |
| Average Annual Cost (Alternative 1)         | <u> 185,000</u> |
| Benefit (Reduced Relocation Cost Benefit)   | 390,000         |
| BCR   | 3.1             |

- 1 Costs are annualized over a 50-year period of analysis;
- 2 FY21 Federal Discount Rate of 2.5%;
- 3 Length of construction assumed to be 12 months; and
- 4 Capital Recovery Factory 0.0542

Similarly, one can compare Average Annual Benefits to Average Annual Costs using the same method. It is clear that the benefits significantly outweigh the costs.

## 3.2.5 LOCALLY PREFERRED PLAN

There is no locally preferred plan at this time.

CAP, Section 14, Emergency Streambank and Shoreline Protection, Newport News, Virginia

## 4 DESCRIPTION OF THE RECOMMENDED PLAN

The Recommended Plan is Alternative 1 (Figure 4-1), which is the stabilization of the 25 foot bluff of eroding riverbank along the James River to provide risk management from further erosion that would damage and ultimately compromise River Road and utilities that are currently at risk. The plan includes longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88) and a native vegetated seed mix will be planted on the slope.

Specifications of the plan include:

- 1. Earthen sloped berm graded on a 1V:3H;
- 2. 2900 tons of VDOT Class III riprap and 800 tons of VDOT No. 1 stone;
- 3. 4300 cubic yards of fill;
- 4. 1600 square yards of geotextile filter fabric;
- 5. 35,000 square feet of seeding (native vegetation mix); and
- 6. 700 cubic yards of debris removal.

The Norfolk District has completed similar projects within the District using toe protection that have been successful at reducing erosion while providing a more natural, vegetated bank. Alternative 1, the least cost alternative, underwent design and cost estimates to arrive at a feasibility level cost that was District Quality Control reviewed.

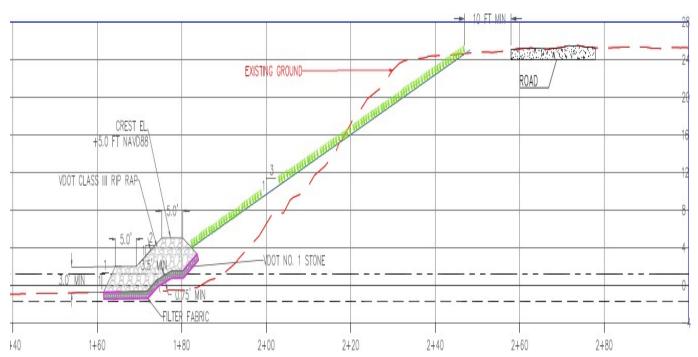


Figure 4-1. Tentatively Selected Plan (TSP) Alternative 1.

## **5 ENGINEERING CONSIDERATIONS**

## 5.1 NORTH ATLANTIC COAST COMPREHENSIVE STUDY (NACCS)

Appendix C contains the engineering design and construction data and documents the engineering analysis and follows the format of Engineering Regulation 1110-2-1150.

This study used Stillwater levels from the North Atlantic Coast Comprehensive Study (NACCS) performed by the USACE Engineering, Research and Development Center (ERDC). The purpose of the NACCS was to identify flood risk and then plan and implement strategies to reduce the risk now and in the future. The study also determined the magnitude and uncertainty of existing and future forcing conditions. It concluded to use its findings to assess coastal engineering projects for coastal storm risk management and resiliency for the areas in the region. The study focused on the Northeast coastal region of the United States (from Virginia to Maine).

For this study, NACCS data for the Base Conditions + 96 random tides were downloaded from CHS in November 2019. The CHS shows the Advanced Circulation Model (ADCIRC) and Steady State Special Wave (STWAVE) save points which contain NACCS results (storm surge, water level, wave height, wave period, wave direction, and current magnitude, etc.) in different locations. ADCIRC Save Point 17351 (Figure 5-1) was the nearest save point to the project location and was analyzed for all engineering evaluation purposes.

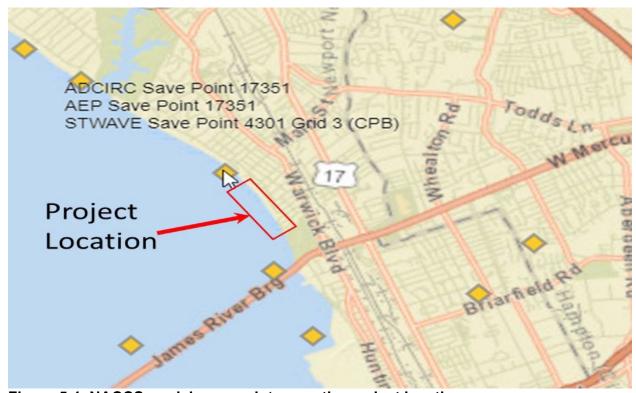


Figure 5-1. NACCS model save points near the project location.

# 5.2 RELATIVE SEA LEVEL RISE EFFECTS ON STRUCTURE HEIGHTS

The native datum of the NACCS results was based on local mean sea level (MSL) tidal epoch 1983-2001. This was the datum that was used to define the NACCS regional hydrodynamic model (ADCIRC), from which storm surge results were obtained. The results of the NACCS water levels were referenced to the year 1992, the midpoint of the current National Tidal Datum Epoch (NTDE) (1983-2001). Therefore, the difference or increase in the relative local level rise (based on the USACE low scenario) from 1992 to 2020 (0.43 feet) was added to bring the water levels to present date. The values were also converted from, MSL to NAVD 88.

The NACCS results (Figure 5-2) produced water levels for different storm frequencies and confidence limits, Figure 5.2 displays Stage-Frequency Curves from the NACCS results from (CHS) at Save Point 17351 for the mean (50%), 84%, 95%, and 98% confidence limits for water levels. Table 5.1 displays the values of the NACCS mean (50%) and 98% confidence limits at Save Point 17351 adjusted with SLR to the present date.

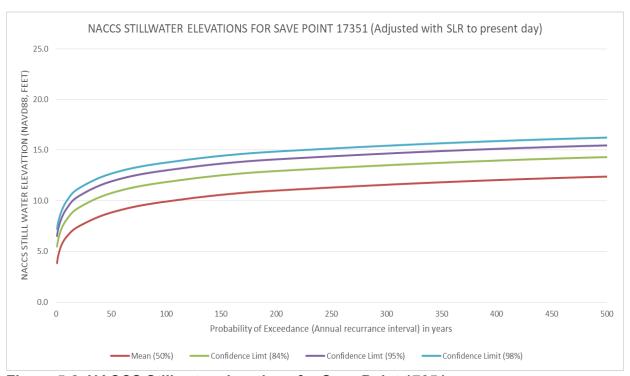


Figure 5-2. NACCS Stillwater elevations for Save Point 17351.

Table 5-1. NACCS Mean (50%) and 98% Confidence Limits Stillwater elevations for Save Point 17351 Adjusted to Present Day.

| NACCS WATER LEVELS ADJUSTED FOR SLR TO YEAR 2020 (LOW CURVE) |       |          |                 |                     |             |  |
|--|-------|----------|-----------------|---------------------|-------------|--|
|  |       | Base Con | ditions + 96 Ra | ndom Tides (NAVD88) |             |  |
|  |       | Mean     | (50%)           | Confidence          | Limit (98%) |  |
| Recurrance<br>(Yrs)  | ACE % | m        | ft              | m                   | ft          |  |
| 1  | 100%  | 1.2      | 3.8             | 2.2                 | 7.2         |  |
| 2  | 50%   | 1.4      | 4.5             | 2.4                 | 7.9         |  |
| 5  | 20%   | 1.7      | 5.6             | 2.7                 | 9.0         |  |
| 10   | 10%   | 2.0      | 6.5             | 3.1                 | 10.0        |  |
| 20   | 5%    | 2.3      | 7.4             | 3.4                 | 11.2        |  |
| 50   | 2%    | 2.7      | 8.8             | 3.9                 | 12.7        |  |
| 100  | 1%    | 3.0      | 9.9             | 4.2                 | 13.8        |  |
| 200  | 0.5%  | 3.4      | 11.0            | 4.5                 | 14.9        |  |
| 500  | 0.2%  | 3.8      | 12.4            | 4.9                 | 16.2        |  |
| 1000   | 0.1%  | 4.1      | 13.3            | 5.2                 | 17.2        |  |
| 2000   | 0.05% | 4.3      | 14.2            | 5.5                 | 18.0        |  |
| 5000   | 0.02% | 4.6      | 15.2            | 5.8                 | 19.0        |  |
| 10000  | 0.01% | 4.8      | 15.8            | 6.0                 | 19.7        |  |

Engineering Pamphlet (EP) 1100-2-1, Global Changes – Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation, recommends analyzing the effects of SLR on the project at three future time period post construction (the year 2022). The time periods include 20 years after construction is completed (the calendar year 2042), 50 years after construction (the calendar year 2072), and 100 years after construction (the calendar year 2122). Table 5.2 shows the predicted increase in SLR for the NACCS water levels using the USACE intermediate curve 20 years (2042), 50 years (2072), and 100 years (2122) into the future after the proposed construction year of 2022.

Table 5-2. Additional Increase in SLR predicted 20 years, 50 years, and 100 years into the future (in feet) from project start year of 2022 to 2122.

| NACCS MEAN (50%) WATER LEVELS ADJUSTED FOR SLR (USACE |       |                     |      |           |           |  |
|---|-------|---------------------|------|-----------|-----------|--|
| INTERMEDIATE CURVE) TO YEAR 2022,2042, 2072, and 2122 |       |                     |      |           |           |  |
|   |       | Year 2022 Year 2042 |      | Year 2072 | Year 2122 |  |
| Recurrance<br>(Yrs)                                   | ACE % | ft                  | ft   | ft        | ft        |  |
| 1   | 100%  | 3.9                 | 4.3  | 5.1       | 6.8       |  |
| 2   | 50%   | 4.6                 | 5.0  | 5.8       | 7.6       |  |
| 5   | 20%   | 5.7                 | 6.1  | 6.9       | 8.6       |  |
| 10  | 10%   | 6.5                 | 7.0  | 7.8       | 9.5       |  |
| 20  | 5%    | 7.5                 | 7.9  | 8.7       | 10.4      |  |
| 50  | 2%    | 8.9                 | 9.3  | 10.1      | 11.8      |  |
| 100   | 1%    | 10.0                | 10.4 | 11.2      | 12.9      |  |
| 200   | 0.5%  | 11.1                | 11.5 | 12.3      | 14.0      |  |
| 500   | 0.2%  | 12.4                | 12.9 | 13.7      | 15.4      |  |
| 1000  | 0.1%  | 13.4                | 13.8 | 14.6      | 16.3      |  |
| 2000  | 0.05% | 14.2                | 14.7 | 15.5      | 17.2      |  |
| 5000  | 0.02% | 15.2                | 15.7 | 16.5      | 18.2      |  |
| 10000   | 0.01% | 15.9                | 16.3 | 17.1      | 18.9      |  |

The Sea Level Tracker tool was used to visualize the observed changes in sea level and to compare trends to the projected sea level changes per USACE Engineer Regulation 1100-2-8162 and Engineer Pamphlet (EP) 1100-2-1. The tool shows the historical, observed changes in mean sea level (MSL) as measured and reported for National Oceanic Atmospheric Administration (NOAA) tide gauges, mapped against the USACE sea level change (SLC) projections. Taken together, the tool enables the comparison of actual SLC with USACE SLC projections (as described in ER 1100-2-8162), along with observed monthly water levels and the computation of SLC trends based on historical data (Sant-Miller et al, 2018). Figure 5.1 displays the results of this tool, comparing actual SLC for CAP, Section 14, Emergency Streambank and Shoreline Protection, Newport News, Virginia

the 19-year (metonic cycle) midpoint moving average (dark blue line) and 5-year midpoint moving average (orange line) against the USACE SLC curve projections for the entire period of record and for the entire period of record (Figure 5.1). The observed 19-year moving average is tracking along the intermediate SLC scenario while the 5-year moving average fluctuates more between the intermediate and high scenario since 2010. The intermediate curve was selected for this project. For more information about sea level rise, refer to the Engineering Appendix.

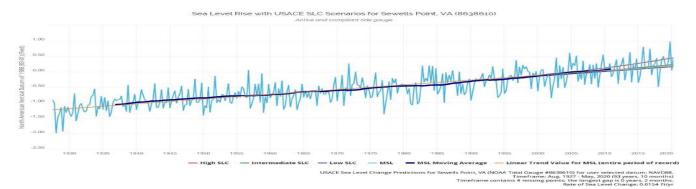


Figure 5.3 Historical Sea Level Rise with USACE Scenarios for Sewells Point (8638610) forthe entire period of record

In order to estimate the level of protection for the alternative to the year 2072, the statistical data was used to produce equivalent ACE's (or return periods) from estimated future stillwater levels for the selected alternative. The project overtops at one-year event. The water levels for mean high tide and mean low tide were reviewed at year 2072. The project will provide protection for mean high tide for the low and intermediate sea level curves. If the project location experiences the high sea level curve, it will only protect to mean low water.

Table 5.3 Level of Projection over time

| USACE Sea Level<br>Curve | FT NAVD88            |       | Increase in Sea Level rise<br>from 2020-2072 (feet) | Water Level<br>at 2072 (FT<br>NAVD88) |
|--------------------------|----------------------|-------|---|---------------------------------------|
| Low                      | Mean High Water 0.95 |       | 1.23  | 2.18                                  |
| Intermediate             | Mean High Water 0.95 |       | 1.80  | 2.75                                  |
| High                     | Mean Low Water       | -1.48 | 3.61  | 2.13                                  |

### 5.3 VERTICAL CONTROLS AND DATUMS

All surveys and mapping products should have the same horizontal and vertical datum. The horizontal datum for this study is tied to the State Plane Coordinate System using North American Datum of 1983 (NAD83, Virginia South, 4502). Distances are in feet by horizontal measurement. Coordinates are Virginia South Zone. Unless otherwise noted, the vertical datum for this study is tied to the North American Vertical Datum of 1988 (NAVD88), a requirement of ER 1110-2-8160. Elevations are in feet.

#### 5.4 DESIGN AND CONSTRUCTION CONSIDERATIONS

This section includes a summary of the design considerations on the Selected Plan Alternative, Alternative 1, Rock Sill with Vegetated Slope. For more information regarding the other alternatives in the focused array, please see the Engineering Appendix. The 10% drawing for Alternative 1 is shown in Attachment 3 to the Engineering Appendix.

Alternative 1 comprises a low rock sill that will protect against the most frequent erosive events at the base of a vegetated slope composed of a slope stabilization blanket. Slope stabilization blankets are typically made of biodegradable materials which are designed to hold seeds and soil in place until vegetation is established. This alternative a similar design used in adjacent properties to the project shoreline. The crest elevation of the low crested sill is set at +5.0 feet NAVD88, which will protect against high tide and 1-year events, potentially for 50 years until the year 2072 (Table 6.5). Thelow crested sill would be overtopped during severe storm events similar to Hurricane Isabel. However, the vegetation and grading of the slope behind would provide some protection against erosion during these events.

Based on preliminary estimates, the design would be constructed using VDOT (Virginia Department of Transportation) Class III armor stone/rip rap with a minimum armor thickness of 3.5 feet and crest width of 5 ft. The preliminary design also includes a 5 feet wide toe for the rock sill to protect against scour, a 0.75 -1 feet thick bedding layer under the armor stone composed of VDOT No. 1 aggregate stone, and geotextile fabric beneath the bedding layer. The remaining slope from +5 feet to +25 feet NAVD88 wouldbe stabilized with slope stabilization blankets. According to the slope stability analysis, the minimum slope inclination required for this alternative is 1 Vertical to 3 Horizontal (1V:3H).

Although a Geotechnical Engineering Data Report was completed by Schnabel in 2013 and provided by the City of Newport News, it is recommended that another geotechnical exploration be performed during the design phase. While the 2013 report provides in- situ soils data, additional Standard Penetration Testing (SPT) in accordance with American Society for Testing and Materials (ASTM) D1586 and soils laboratory testing is recommended to confirm the results provided by Schnabel in the 2013 report.

Prior to construction the river bank slopes, starting 10 feet beyond the southern edge of River Road, the Contractor will be required to be grubbed of all trees, vegetation, stumps, and roots. Due to some large trees, roots may extend two to three feet below the ground surface. Debris removal will be required within the project limits of the river bank slopes and up to approximately 40 feet offshore from the shoreline or as shown inthe design drawings. The Contractor shall expect to encounter debris as described in the Engineering Appendix section 8.1 Site Description. The Contractor shall also anticipate the removal of dilapidated groins and remains of old piers within the project limits.

Excavation and construction near and/or on top of the river bank may result in failure of the natural river bank. The Contractor shall proceed with extreme caution and will be required to provide whatever means necessary to prevent failure of the natural river bank. The Contractor shall take into consideration if construction may need to proceed from the toe of the bank until the bank is adequately supported.

The soils which will be excavated on-site may be reused but shall only be reused as backfill in areas on the natural river bank in accordance with the satisfactory materials requirements to be provided in the design specifications. Unsatisfactory materials will be required to be removed offsite by the Contractor.

On-site excavated soils to be reused and imported satisfactory soils shall be compacted with suitable compaction equipment 95% of maximum laboratory value for the standard moisture density relationship in accordance with ASTM D1557.

Groundwater was encountered in the Geotechnical Engineering Data Report dated May 10, 2013 at approximate depths of 19 to 28 feet below the ground surface of the river bank. As indicated in the report, the final design should anticipate the fluctuation of the hydrostatic water table depending on variations in precipitation, surface runoff, pumping,tidal action, river levels, evaporation, leaking utilities, and similar factors. Excavations will encounter groundwater and seepage water which will require dewatering methods such as well points or wells to lower the groundwater and allow construction under dry conditions. If the groundwater is not properly controlled the soil may begin to slough and unravel during the slope excavation. The Contractor shall also consider the fluctuating river levels which may require construction of temporary cofferdam.

The Contractor will be responsible for Contacting Miss Utility of Virginia and verifying that all utilities are located prior to construction. The Contractor shall maintain all utility markings through all phases of construction.

The Contractor will be utilizing public roads to access the project area for construction. The Contractor shall take care not to damage the roadways or utilities. Any damage caused to the roadways and utilities shall be repaired by the Contractor to new or existing condition at no additional cost to the government. All roadway and utility repairs shall receive approval from the City of Newport News prior to completion.

At this time, it is our understanding that laydown areas will be available for the Contractor to utilize during construction. Proposed laydown locations are identified in sections of this feasibility report.

The Contractor shall take into consideration to allow property owners to access their properties at all times. Traffic control may need to be taken into consideration by the Contractor. The roadway shall have enough space to allow emergency vehicles to access the properties.

It is recommended that the Contractor perform a pre-construction and post construction survey to document all existing conditions prior to construction and after construction. Detailed requirements for these surveys should be provided in the specifications during the design phase for the Contractor to photo document the conditions and complete regular reports.

## 5.5 CONSTRUCTION SEQUENCING STRATEGY

The sequencing recommendation for the Selected Plan Alternative is as follows:

- 1. Install erosion and control measures were applicable;
- 2. Remove necessary existing debris and vegetation on shoreline bank;
- 3. Grade and fill existing slope bank to 1V:3H slope;
- 4. Grade and fill area for rock sill;
- 5. Install geotextile fabric;
- 6. Install bedding layer;
- 7. Install armor stone;
- 8. Install slope stabilization blankets; and
- 9. Plant native vegetation.

## **6 ENVIRONMENTAL CONSEQUENCES**

This chapter describes the existing and projected future conditions for each of the resources that reasonably could be expected to be impacted by the project. These conditions are described without implementation of the Recommended Plan and with implementation of the Recommended Plan (Alternative 1). The comparison of the Relocation of Road Alternative provides a baseline for comparison to evaluate the impacts of the Future With Project Alternative (Alternative 1).

Guidelines established by the CEQ (40 CFR 1508.27) specify that the significance of an impact should be determined in relationship to both context and intensity (severity). The assessment of potential impacts and the determination of their significance are based on the requirements of 40 CFR 1508.27. Three levels of impact can be identified:

- No impact No impact is predicted;
- Less than significant impact An impact is predicted, but the impact does not meet the intensity/context significance criteria for the specific resource; and
- Significant impact An impact is predicted that meets the intensity/context significance criteria for the specific resource.

Impacts are defined in general terms and are qualified as adverse or beneficial and as temporary or permanent. Beneficial impacts provide desirable situations or outcomes; whereas adverse impacts may negatively impact a resource area. Negligible impacts are localized and are generally not measurable. Minor impacts are localized and slight but detectable; moderate impacts are readily apparent and appreciable, and major impacts are severely adverse or highly noticeable and considered to be significant.

Moderate impacts may not meet the criteria to be classified as significant, but the degree of change is noticeable and has the potential to become significant if not effectively mitigated. Additionally, CEQ regulations (at 40 CFR § 1508.20) further define mitigation in the following five ways, in order of preference:

- 1. Avoiding the impact altogether by not taking a certain action or parts of an action.
- 2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- 3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- 4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- 5. Compensating for the impact by replacing or providing substitute resources or environments.

The means for reducing adverse environmental impacts, including the use of BMPs, are also discussed for each resource area where appropriate.

#### 6.1 AESTHETICS

## No Action/Future Without Project Alternative

The aesthetic environment would continue to be defined by scenic views of the James River. However, bank erosion would continue over time and would increase the susceptibility of the existing utilities and roadway to potential damage over time. Adverse, minor permanent impacts to the visual resources within the ROI would be anticipated with implementation of the No Action/Future Without Project Alternative.

## Alternative 1: Rock Sill with Vegetated Slope

The proposed construction of a rock sill with a vegetated slope would result in beneficial, permanent minor effects to the aesthetic environment. Prior to construction, the project site would need to be cleared of all trees and roots, stumps, and vegetation. Debris removal would be required within the project limits of the river bank slopes and up to approximately 40 feet offshore from the shoreline or as shown in the design drawings. The removal of the debris on the shoreline and the placement of the stone sillwould also improve the aesthetic environment. The proposed vegetated slope would be planted with native grasses and potentially other native vegetation (if determined necessary in the future) adjacent to River Road to abate stormwater runoff where feasible. Any vegetation, such as native grasses, that may be planted adjacent to River Road would be expected to be maintained by the City of Newport News Public Works Department.

During construction, there would be adverse, temporary, minor impacts to the aesthetic environment resulting from the use of construction equipment and a staging area that would be present along River Road and/or the use of marine equipment, such as a crane-mounted work barge, that would occupy the nearshore areas until the project is fully constructed. Overall, impacts to the aesthetic environment would be less than significant with the proposed construction of a rock sill and vegetated slope.

#### 6.2 AIR QUALITY

## No Action/Future Without Project Alternative

Minor, permanent adverse impacts to air quality would result from continuous emissions-producing sources, such as vehicle emissions and vessel traffic in the vicinity of the project site with implementation of the No Action/Future Without Project Alternative.

# Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 would result in minor, temporary, adverse increases in air emissions during construction. Criteria pollutant air emissions would be produced from the combustion of fuels in heavy construction equipment. Particulate matter air emissions, such as fugitive dust, would potentially be produced from the ground- disturbing activities. Fugitive dust air emissions would vary depending on the work phase, level of activity, and prevailing weather conditions. Construction methods would incorporate best management

CAP, Section 14, Emergency Streambank and Shoreline Protection, Newport News, Virginia

practices (BMPs) to minimize fugitive dust emissions in accordance with 9VAC-5060 et seq., including the use, where possible, the covering of open equipment for conveying materials; and prompt removal of spilled or tracked dirt or other materials from the paved street and removal of dried sediments resulting from soil erosion.

Impacts to air quality would be less than significant with the proposed construction of a rock sill and vegetated slope.

## 6.3 BATHYMETRY, HYDROLOGY, AND TIDAL PROCESSES

# No Action/Future Without Project Alternative

Existing hydrologic conditions as described in Section 2.3.3 would continue to persist. Groundwater levels in the existing bank would continue to fluctuate depending on surface runoff patterns, precipitation, tidal action, and river levels. In the absence of any shoreline stabilization measure, the likelihood of increases in storm surge and the frequency and intensity of precipitation events would be expected to result in continued erosion of the riverbank.

# Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 would have a negligible to minor, permanent adverse impact on existing, nearshore bathymetry. The proposed sill would be constructed primarily in the intertidal area with a portion of the stone sill potentially being constructed channelward of mean low water. During the Design and Implementation Phase, the exact alignment of the toe of the sill will be determined. However, the stone sill would be constructed using approximately 2,900 tons of VDOT Class III riprap and 800 tons of VDOT No. 1 Stone. The VDOT Class III rip rap material would be placed over top of the VDOT No. 1 stone which would be used as bedding stone. Additionally, the existing debris present on the shoreline would be removed prior to construction.

Implementation of Alternative 1 would not be anticipated to directly impact hydrologic and tidal processes. However, the proposed stone sill would stabilize the existing eroding shoreline and would mitigate impacts resulting from the increase in storm surgeand frequency/intensity of storm events associated with climate change.

Therefore, impacts to bathymetry, hydrology, and tidal processes would be less than significant with implementation of Alternative 1.

#### 6.4 CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

#### **No Action/Future Without Project Alternative**

Existing site conditions would persist and the shoreline would continue to experience long-term erosion from the combined effects of storm surge and stormwater runoff during high precipitation events or coastal storms thus further threaten the existing upland public utilities, including River Road. Existing GHG-producing activities or sources would be expected to persist resulting in minor, permanent adverse impacts toair quality; however, this would not cumulatively or synergistically interact with climate change and/or other cumulative effects. In the absence of any shoreline stabilization measure, the likelihood of increases in storm surge and the frequency and intensity of precipitation events associated with climate change would be expected to result in continued erosion of the riverbank.

As a result of climate change, global temperatures and sea levels are expected to rise in the foreseeable future. Predicted climate change impacts including sea level rise, and the potential increase in the frequency and intensity of storm events have the potential to affect the nature and character of the estuarine and coastal ecosystem in the ROI.

## Alternative 1: Rock Sill with Vegetated Slope

Greenhouse gas emissions would temporarily increase resulting from combustion of fuel during construction. The temporary increase would result in minor, adverse effects to air quality; however, this would not cumulatively or synergistically interact with climate change and/or other cumulative effects.

Therefore, impacts to climate change and greenhouse gas emissions would be less than significant with implementation of Alternative 1.

#### 6.5 CULTURAL RESOURCES

### No Action/Future Without Project Alternative

There would be no direct, indirect, or cumulative effects to cultural resources anticipated with implementation of the No Action/Future Without Project Alternative. There are no identified historic buildings or archeological resources in the APE. However, since a Phase 1 Archeological Survey of the project site has not been conducted, it is possible that if archeological resources are present within the existing river bank, they could be destroyed or lost as a result of continued bank erosion.

#### Alternative 1: Rock Sill with Vegetated Slope

The construction of the rock sill and associated vegetated slope to stabilize the shoreline would not result in impacts to known cultural resources, including historic building structures or known archeological sites. However, due to the soil disturbing activities which include bank grading to achieve a 1V:3H slope, the potential to impact unidentified archeological resources exists. A Phase 1 Archeological Survey of the site was not conducted for this study. The Virginia DHR concurred with the USACE's determination that no historic properties would be affected by the proposed undertaking on September 29, 2020.

Therefore, impacts to cultural resources would be less than significant with implementation of Alternative 1.

## 6.6 FISHERY RESOURCES AND ESSENTIAL FISH HABITAT

## No Action/Future Without Project Alternative

Existing fishery resources would persist as described in Section 2.3.6. Sea level rise may result in changes to the estuarine environment that could influence life history characteristics of fish species common to the James River and Chesapeake Bay. Temporal or spatial shifts in foraging, breeding, or prey species availability could occur, although further research is needed to fully understand the extent of these potential impacts resulting from climate change impacts on fishes occurring in Chesapeake Bay.

# Alternative 1: Rock Sill with Vegetated Slope

The construction of the proposed rock sill would result in temporary, negligible to minor adverse impacts to the nearshore estuarine environment including fishery resources. The proposed sill would be constructed primarily in the intertidal area with a portion of the stone sill potentially being constructed channelward of mean low water. During the Preconstruction, Engineering, and Design Phase, the exact alignment of the toe of thesill will be determined. However, the stone sill would be constructed using approximately 2,900 tons of VDOT Class III riprap and 800 tons of VDOT No. 1 Stone. Fishes would be expected to avoid the area during in-water construction. There are nopile-driving activities associated with Alternative 1; therefore, acoustic underwater impacts to fish resources would be negligible and would be associated with vessel traffic such as work barges that may be necessary for construction. Vessel traffic is common to the James River and contributes to the existing ambient underwater noise environment.

Construction activities would temporarily increase turbidity immediately adjacent to the project site. However, Best Management Practices (BMPs) such as the use of a turbidity curtain if feasible, would be implemented. Additionally, the nearshore benthic environment is largely comprised of sandy material which would be expected to settle quickly from the water column following disturbance.

Minor, adverse impacts to nearshore benthic resources would be permanent due to the placement of the stone. The existing Eastern oyster and Atlantic ribbed mussel resources attached to the existing debris along the shoreline would be removed along with debris removal during construction. However, their presence in the area indicates that settlement and attachment of the Eastern oyster to the stone sill is likely to occur once construction is complete.

Essential Fish Habitat may be adversely affected as a result of construction; however, these effects are anticipated to be minimal. Impacts to EFH are further addressed in the EFH Assessment worksheet provided in Appendix A. The NMFS concurred with the USACE's determination of EFH impacts on September 29, 2020.

In summary, impacts to fishery resources and Essential Fish Habitat would be less than significant with implementation of Alternative 1.

#### 6.7 FLOODPLAINS AND FLOOD RISK MANAGEMENT

## No Action/Future Without Project Alternative

Shoreline and bank erosion would continue within the project area. Land areas that are currently dry during a normal daily high tide will eventually be underwater at high tide. Over time, the combined effects of shoreline erosion caused by high tides, storm surge, and wave action and bank loss from rainfall runoff will result in public facilities, including River Road, electric, gas, communications, and public water and sewer lines, becoming more vulnerable to damage associated with nor easters and tropical storms/hurricanes.

Ongoing and continued relative sea level rise will only worsen the shoreline erosion problem. The historic rate of sea level rise at the Sewells Point tide gage (1927-2018) is approximately 0.18 inches per year or approximately 1.5 feet per 100 years (NOAA 2020). A 2018 study by the Virginia Institute of Marine Science shows relative sea level rise rates along the east coast are trending higher than historic rates. The study evaluated tide gage records from 1969 to 2017, where most gages have complete or near complete records. At the Sewells Point gage, the study found a relative sea level rise rate of approximately 0.20 inches per year for the period 1969 to 2017 (Boon et al. 2018). In addition, predicted changes with climate may also cause an increase in storm activity with respect to frequency, intensity, storm surge, and rainfall.

# Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 will have minor, permanent, and beneficial impacts to existing floodplain areas resulting from shoreline stabilization. While the public facilities, including River Road, electric, gas, communications, and public water and sewer lines, are at/near elevation 25 feet, NAVD88 and not located within the current effective FEMA1- and 0.2-percent-annual-chance floodplains, without implementation of Alternative 1, they will over time possibly become at risk to damage associated with flooding.

Adverse impacts to floodplain areas during construction would be temporary and minor; best management practices, regulations, and inspections would be followed during design and construction.

# 6.8 GEOLOGY, PHYSIOGRAPHY, AND TOPOGRAPHY

#### No Action/Future Without Project Alternative

There would be negligible to minor, permanent, adverse effects to geology, physiography, and topography with implementation of the No Action/Future Without Project Alternative. Bank erosion would persist in the future as a result of the combined effects of storm surge and stormwater runoff from high precipitation and coastal stormevents.

### Alternative 1: Rock Sill with Vegetated Slope

Ground disturbance would occur as a result of construction of the rock sill and vegetated slope. In addition to the stone required to construct the sill, approximately 4,300 cubic yards of fill material, and 35,000 square feet of soil stabilization blankets would be required to achieve the desired 1V:3H vegetated slope. The implementation of Alternative 1 would result in minor, permanent beneficial impacts to topography resulting from the shoreline stabilization. There would be no anticipated impacts to geology or physiography.

## 6.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

## No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any release of hazardous, toxic, or radioactive release within the ROI.

## Alternative 1: Rock Sill with Vegetated Slope

There is no evidence of environmental contamination in the ROI; furthermore, there would be no anticipated releases of petroleum, hazardous, toxic, or radioactive waste with implementation of Alternative 1. A potential for oil spills exists with vessel and construction equipment in the area, but accident and spill prevention plans included in the contract specifications would prevent most spills. The potential exists for negligible to minor, temporary adverse impacts if a spill occurred, however, adherence to the accident and spill prevention plan would mitigate these risks. Additionally, the construction contract would include requirements to properly manage, store, and dispose of all fuels and materials generated by or used for the project.

In summary, impacts associated with hazardous, toxic, and radioactive waste would be less than significant with implementation of Alternative 1.

## 6.10 NOISE AND VIBRATION

# No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative would result in continued threats to the existing utilities and River road as a result of the continuous bank erosion. The existing noise environment would be expected to persist as described in Section 2.3.10. Noise-producing sources in the area would continue to include vehicles and vessel traffic.

#### Alternative 1: Rock Sill with Vegetated Slope

Minor, temporary adverse effects to the existing noise environment in the ROI which is located within a residential community would occur during construction which would be

anticipated to occur during daylight hours. The homes located along River Road are approximately 60-70 feet from the project site. Heavy construction equipment would be used intermittently throughout the day, and noise levels would vary depending on the type of construction equipment required. The typical noise level for backhoes and loaders approximately 50 feet from the source is 80 and 85 decibels, respectively (U.S.Department of Transportation 2017). Noise-related impacts would only occur during the construction of the project. Upon completion, there would be no further noise-related impacts.

Therefore, impacts to the ambient noise environment would be less than significant with implementation of Alternative 1.

#### 6.11 OCCUPATIONAL HEALTH AND SAFETY

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative would result in the existing shoreline continuing to erode over time posing a threat to the existing utilities and River Road. The site conditions would be expected to continue and potentially threaten public safety due to the long-term deteriorating conditions of the site. Minor to moderate, permanent adverse impacts to occupational health and safety would be anticipated with implementation of the No Action Alternative.

## Alternative 1: Rock Sill with Vegetated Slope

During project construction, safety risks would be associated with operating machinery and equipment during construction of the rock sill and grading of the bank. These risks would be temporary, minor and adverse to occupational health and safety. While working in and around the water, drowning is always a safety risk, therefore, work vessels, if required, should be equipped with flotation devices and first aid equipment.

The existing site constraints, including bank steepness and a shallow nearshore environment, present access and staging issues that may increase hazardous work conditions during construction. Contractors would be required to prepare an Accident Prevention Plan (APP) for review by USACE safety staff prior to the start of construction (USACE EM-385-1-1). The APP specifies the safety and occupational health plan, responsible personnel and their Occupational Safety and Health Administration certifications, safety training for all personnel, protective equipment, Clothing and Personal Protective Equipment (PPE) are typically required for workers and may include: appropriate clothing for weather conditions; steel toed boots; hard hat; eye protection, work vest/personal floatation device; and hearing protection. While working in and around the water, drowning is always a safety risk, therefore, all vessels would be required to be equipped with flotation devices and first aid equipment.

Therefore, impacts associated with occupational health and safety would be less than significant with implementation of Alternative 1.

#### 6.12 RECREATION

# No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any impacts to recreation beyond the existing conditions within the ROI as described in Section 2.3.12.

## Alternative 1: Rock Sill with Vegetated Slope

During project construction, minor, temporary adverse to recreation would occur. Although private property access along River Road would not be restricted, the utilization of River Road for recreational activities such as bike riding or walking may be temporarily limited due to the presence of equipment and/or material stockpiles during construction.

If site access by water is required for construction, temporary, minor impacts to recreational boating activities in the nearshore environment may occur. Small, recreational vessels would be expected to avoid the nearshore environment during construction.

There are existing privately owned parcels that have the potential to be utilized for recreational purposes by property owners in the future for access to navigable waters. Real estate actions necessary to support the project are anticipated as a result of the implementation of Alternative 1. For more information regarding the Real Estate Plan, please refer to Appendix B. As such, the potential exists for minor to moderate, permanent adverse impacts to recreational activities that would be impacted by the proposed construction of a rock sill and vegetated slope.

In summary, impacts to recreation would be less than significant with implementation of Alternative 1.

#### 6.13 SOCIOECONOMICS

# No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any socioeconomic impacts beyond the existing conditions within the ROI as described in Section 2.3.13.

### Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 would have negligible, temporary beneficial impacts on employment during construction which would require local construction workers to construct the proposed project. The proposed shoreline improvements would have no effects on community cohesion or local income levels and would not result in any population displacement. Real estate actions, including the potential for easements or acquisition, would be required for the private property parcels located within the project footprint unless it is further determined in the PED Phase that the project could be constructed without impacts to the privately owned parcels. Real estate actions would be expected to have a minor, permanent adverse effect as there are fewer than five private parcels within the length of the 600-foot shoreline.

CAP, Section 14, Emergency Streambank and Shoreline Protection, Newport News, Virginia

Therefore, impacts to socioeconomics would be less than significant with implementation of Alternative 1.

#### 6.14 SPECIAL STATUS SPECIES

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in impacts to special status species with the potential to occur in the ROI as described in Section 2.3.14.

### Alternative 1: Rock Sill with Vegetated Slope

The proposed construction of a rock sill and associated vegetated slope may affect and is likely to adversely affect the Northern long-eared bat if present. However, due to a lack of suitable roosting, foraging, and hibernacula, the northern long-eared bat is not likely to be present.

The proposed action may affect but is not likely to adversely affect the Atlantic sturgeon, shortnose sturgeon, leatherback sea turtle, Kemp's ridley sea turtle, hawksbill sea turtle, and loggerhead sea turtle which have the potential to occur in the ROI. In- water impacts associated with project construction would occur in the nearshore environment at shallow depths. The protected species under the jurisdiction of NMFS are all highly mobile and would be expected to move into deeper waters and avoid the project site due to the temporary construction disturbance in the area. Additionally, sea turtles are seasonal transients to the area and may not be present if construction occurs during cold-weather months. Turbidity controls would be implemented during construction if determined to be feasible and would further minimize any potential impacts to special status species.

If vessels such as work barges are required for construction of the stone sill, the potential for vessel strikes to a protected species is negligible. The shallow, nearshore environment adjacent to the project site would necessitate the use of shallow draft vessels, and the requirement that vessels operate at slow speeds upon approach to the shoreline.

Accordingly, impacts to special status species would be less than significant with implementation of Alternative 1. Consultation requirements in accordance with the ESA are documented in Appendix A.

### 6.15 VEGETATION, WETLANDS, AND SUBMERGED VEGETATION

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any impacts to vegetation, wetlands, and submerged aquatic vegetation beyond the existing conditions as described in Section 2.3.15.

### Alternative 1: Rock Sill with Vegetated Slope

Minor, permanent adverse effects to existing upland vegetation at the project site would occur as a result of the removal of existing trees and upland vegetation prior to construction. Once the site has been graded to achieve the 1V:3H slope, slope stabilization blankets, which are typically made of biodegradable materials, would be installed to hold soil and seeds in place until vegetation is established. This similar slope design was observed adjacent to the proposed project site on the far side of Government Ditch as shown in Figure 5-3.



Figure 6-1. Vegetated slope adjacent to Government Ditch. Image taken 2/06/19.

The slope is anticipated to be seeded following placement of the slope stabilization blankets. Although the planting plan would be finalized in the Design and Implementation Phase, the following type of grasses would likely be considered. Warm-season grasses generally require less maintenance and have a shorter growing season. Warm-season grasses such as Bermuda grass and zoysia grass are well adapted to the environmental conditions found in the Eastern Virginia/Southern Piedmont region and are likely to be considered good candidate grass types for vegetating the slope. Other warm-season grasses that may also warrant considerationinclude St. Augustine grass, however, vegetated plantings as opposed to seeding, would likely be required and may not be as cost effective. Fescue can also be established from seed and is suitable for low management conditions. To ensure the long-term stability of the slope and stone sill,

it is not anticipated that trees would be re-planted on the adjacent upland following construction. Any additional native vegetation planted in associated with this project would not impede the existing scenic view of the James River.

As noted in Section 2.3.15, the only invasive species at the project site is the common reed, *Phragmites australis*, which is present in small patches at mid-bank height where groundwater seepage has likely occurred to facilitate survival. This species would be expected to be removed from the site as a result of the bank grading, placement of soil stabilization blankets, and subsequent seeding. The common reed would not be expected to return to the site once the slope has been stabilized. Accordingly, implementation of the Recommended Plan would eliminate the invasive common reed from the site and would not contribute to the spread of this invasive species.

There were no observed vegetated wetlands onsite; therefore, there would be no anticipated impacts to vegetated wetlands resulting from implementation of Alternative 1. Additionally, there would be no impacts to submerged aquatic vegetation due to its absence from the nearshore areas of the project site.

Impacts to vegetation, wetlands, and SAV would be less than significant with implementation of Alternative 1.

#### 6.16 WATER QUALITY

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any impacts to water quality beyond the existing conditions as described in Section 2.3.16. The ongoing erosion has the potential to result in minor impacts to water quality as a result of sedimentation and increased turbidity.

### Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 would result in negligible to minor, temporary adverse impacts to water quality. Turbidity would increase along with total suspended solids in the nearshore environment during construction; however, turbidity impacts would be minimized by the use of turbidity curtains if determined feasible. Additionally, the nearshore benthic environment is largely comprised of sand which would be expected to settle quickly from the water column following disturbance. Following construction completion, the existing water quality conditions would be expected to return to ambient conditions. Additionally, stabilization of the shoreline may slightly improve localized water quality by minimizing erosion and sedimentation impacts.

Therefore, water quality impacts would be less than significant with implementation of Alternative 1.

### 6.17 WILDLIFE

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative is not anticipated to result in any impacts to wildlife beyond the existing conditions as described in Section 2.3.17. Minor impacts to wildlife and associated habitat have the potential to occur as a result of water quality impacts attributed to the ongoing erosion.

### Alternative 1: Rock Sill with Vegetated Slope

Implementation of Alternative 1 would result in negligible to minor, temporary adverse impacts to wildlife. During construction activities, small mammals, reptiles, and amphibians would be temporarily displaced and certain species, such as shore-dwelling birds would likely avoid the area until all construction activities are complete and ambient conditions are restored. Additionally, turbidity increases during in-water construction may temporarily disrupt foraging abilities of wildlife. There would be no anticipated effects to bald eagles since the closest reported bald eagle nest is located tothe northwest approximately two miles.

The noise and temporary disturbance during construction may cause migratory birds and associated prey species, such as benthic invertebrates and fish, to move away from project site if present; however, this is a temporary, negligible to minor adverse impact that does not substantially impact their long-term foraging or breeding success.

Therefore, impacts to wildlife would be less than significant with implementation of Alternative 1.

### 6.18 TRANSPORTATION

### No Action/Future Without Project Alternative

Implementation of the No Action/Future Without Project Alternative would result in the potential for permanent, adverse effects to transportation as a result of the continued erosion which could pose a threat to River Road in the absence of measures to halt the erosion.

### Alternative 1: Rock Sill with Vegetated Slope

During construction of the rock sill and vegetated slope, minor, temporary adverse impacts to transportation would occur. Construction vehicles and equipment would be present along River Road. Portions of River Road adjacent to the project site may be temporary closed for short durations during construction which could affect access to residential property. Stabilization of the shoreline along this stretch of the James River would ultimately protect the existing roadway resulting in permanent, beneficial effect to transportation.

### 6.19 CUMULATIVE IMPACTS

### No Action/Future Without Project Alternative

In the absence of shoreline stabilization at the project site, the threat to existing public utilities would continue to increase. The project location along the James River shoreline is likely susceptible to both SLR and land subsidence. Predicted climate change impacts

have the potential to cause long-term changes in the nature and character of the estuarine ecosystem over time. However, implementation of the No Action/Future Without Project Alternative would not be anticipated to substantially cumulatively or synergistically interact with climate change and/or other cumulative effects.

### Alternative 1: Rock Sill with Vegetated Slope

The construction of a rock sill with vegetated slope would stabilize the existing 600-foot shoreline resulting in improved site conditions that would eliminate the current threat to existing public utilities, including River Road. Other potential cumulative projects that could occur in the future includes the future construction of residential piers on private property within the project footprint. The future construction of residential piers could potentially cause constructability issues for the proposed shoreline stabilization project. Additionally, an existing private pier and rock sill currently exists, and could also present constructability issues; however, it is anticipated that the proposed rock sill will tie into the existing rock structures. If the existing stone protection is not maintained by the private property owner and fails, this could increase the vulnerability of the proposed rock sill to failure. Close coordination with all stakeholders, including local residents and the City of Newport News, into the Design and Implementation Phase would mitigate issues that could potentially arise.

Therefore, implementation of Alternative 1 would not be anticipated to substantially cumulatively or synergistically interact with climate change and/or other cumulative effects.

#### 6.20 CONCLUSION

Potential impacts to the aforementioned resource areas resulting from implementation of Alternative 1, which includes the construction of a proposed rock sill and vegetated slope, would be less than significant.

The alternatives evaluated in Section 3.2.4 include the full rock revetment (A2) Partial Rock Revetment with Vegetated Slope (A3), and the living shoreline with vegetated slope (A4). The environmental impacts associated with implementation of Alternatives A2-A4 would be comparable to the environmental consequences of implementation of the Recommended Plan for all resource areas except for Fishery Resources and EFH. Alternatives A3 and A4 would include a footprint that extends slightly further channelward than the footprint of the Recommended Plan. Although the impacts wouldbe minor, there would be a slightly larger area of EFH impacted with implementation of A3 and A4. Minor, adverse impacts to nearshore benthic resources would be permanent due to placement of the stone material. These impacts would not be considered significant.

The proposed shoreline stabilization project would improve site conditions through the removal of existing debris that is composed of broken concrete along the shoreline and the construction of a stable slope for the approximate 600-foot stretch of shoreline which would further eliminate the current threat to existing public utilities, including River Road.

### 7 ENVIRONMENTAL COMPLIANCE

This chapter discusses the status of coordination and compliance of the Recommended Plan with environmental requirements. As stated in Chapter 1, this document has been prepared as an Integrated Feasibility Study/Environmental Assessment. The compliance status for the Recommended Plan is identified for relevant environmental laws and EOs in Tables 5-4 and 5-5, respectively. Anticipated future environmental permits/authorizations are identified in Table 5-6.

Table 7-1. Environmental Compliance.

| Title of Law   | U.S. Code                              | Compliance Status   |
|--|--|---|
| Abandoned Shipwreck Act of 1987  | 43 United States Code<br>(U.S.C.) 2101 | N/A   |
| American Bald and Golden<br>Eagle Protection Act of 1962,<br>as amended                | 16 U.S.C. 668                          | Full compliance.  |
| Anadromous Fish<br>Conservation Act of 1965  | 16 U.S.C. 757 a et seq                 | Full compliance.  |
| Clean Air Act of 1972, as amended  | 42 U.S.C. 7401 et seq                  | Full compliance.  |
| Clean Water Act of 1972, as amended  | 33 U.S.C. 1251 et seq                  | Full compliance.  |
| Coastal Zone Management<br>Act of 1972, as amended                                     | 16 U.S.C. 1451 et seq                  | Full compliance. Concurrence received from Virginia DEQ on November 20, 2020. |
| Comprehensive<br>Environmental Responses,<br>Compensation and Liability<br>Act of 1980 | 42 U.S.C. 9601                         | Full Compliance.  |
| Deepwater Port Act of 1974, as amended   | 33 U.S.C. 1501                         | N/A   |
| Emergency Wetlands<br>Resources Act  | 16 U.S.C. 3901-3932                    | N/A   |
| Endangered Species Act of 1973   | 16 U.S.C. 1531                         | Full compliance. Consultation with the USFWS has                              |

| Title of Law   | U.S. Code             | Compliance Status   |
|--|-----------------------|---|
|  |                       | concluded and the USFWS verification letter of August 21, 2020 is provided in Appendix A.     |
| Estuary Protection Act of 1968                                 | 16 U.S.C. 1221 et seq | N/A   |
| Fish and Wildlife<br>Coordination Act of 1958, as<br>amended   | 16 U.S.C. 661         | Full compliance. The FWCA letter was received from the USFWS on April 12, 2021.               |
| Flood Control Act of 1970                                      | 33 U.S.C. 549         | N/A   |
| Land and Water<br>Conservation Act                             | 16 U.S.C. 460         | Full Compliance.  |
| Magnuson-Stevens Fishery<br>Conservation and<br>Management Act | 16 U.S.C. 1801        | Full compliance. Concurrence received from NMFS on September 29, 2020.                        |
| Marine Mammal Protection<br>Act of 1972, as amended            | 16 U.S.C. 1361        | N/A   |
| Marine Protection, Research, and Sanctuaries Act of 1972       | 33 U.S.C. 1401        | N/A   |
| Migratory Bird Conservation<br>Act of 1928, as amended         | 16 U.S.C. 715         | Full compliance.  |
| Migratory Bird Treaty Act of 1918, as amended                  | 16 U.S.C. 703         | Full compliance.  |
| National Environmental<br>Policy Act of 1969, as<br>amended    | 42 U.S.C. 4321 et seq | Full compliance is anticipated following the signing of the Finding of No Significant Impact. |
| National Historic Preservation<br>Act of 1966, as amended      | 16 U.S.C. 470         | Full Compliance. Concurrence received from Virginia DHR on September 29, 2020.                |

| Title of Law   | U.S. Code             | Compliance Status |
|--|-----------------------|-------------------|
| National Historic Preservation<br>Act Amendments of 1980       | 16 U.S.C. 469a        | Full Compliance.  |
| Native American Graves Protection and Repatriation Act of 1990 | 25 U.S.C. 3001        | N/A               |
| Noise Control Act of 1972, as amended                          | 42 U.S.C. 4901        | Full Compliance.  |
| Resource Conservation and Recovery Act of 1976                 | 42 U.S.C. 6901 et seq | Full Compliance.  |
| River and Harbor Act of 1888, Section 11                       | 33 U.S.C. 608         | Full Compliance.  |
| River and Harbor Act of 1899                                   | 33 U.S.C. 401 et seq  | Full Compliance.  |
| Safe Drinking Water Act of 1974, as amended                    | 42 U.S.C. 300         | Full Compliance.  |
| Submerged Lands Act of 1953                                    | 43 U.S.C. 1301 et seq | Full Compliance.  |
| Toxic Substances Control Act of 1976                           | 15 U.S.C. 2601        | Full Compliance.  |

### **Table 7-2. Executive Orders.**

| Title of Executive Order                               | Executive Order Number | Compliance Status            |
|--|------------------------|------------------------------|
| Protection and Enhancement of Environmental Quality    | 11514/11991            | Full Compliance.             |
| Protection and Enhancement of the Cultural Environment | 11593                  | Full Compliance.             |
| Floodplain Management                                  | 11988                  | Full Compliance.             |
| Protection of Wetlands                                 | 11990                  | Full Compliance anticipated. |
| Federal Compliance with Pollution Control Standards    | 12088                  | Full Compliance.             |

| Title of Executive Order   | Executive Order Number | Compliance Status |
|--|------------------------|-------------------|
| Offshore Oil Spill Pollution   | 12123                  | N/A               |
| Federal Compliance with<br>Right-to-Know Laws and<br>Pollution Prevention                | 12856                  | N/A               |
| Federal Actions to Address Environmental Justice and Minority and Low-income Populations | 12898                  | Full Compliance.  |
| Protection of Children from<br>Environmental Health Risks<br>and Safety Risks            | 13045                  | Full Compliance.  |
| Invasive Species   | 13112                  | Full Compliance.  |
| Marine Protected Areas   | 13158                  | N/A               |
| Consultation and Coordination with Indian Tribal Governments                             | 13175                  | Full Compliance.  |
| Responsibilities of Federal<br>Agencies to Protect Migratory<br>Birds                    | 13186                  | Full compliance.  |
| Facilitation of Cooperative Conservation   | 13352                  | N/A               |
| Preparing the United States for Impacts of Climate Change                                | 13659                  | Full Compliance.  |
| Planning for Federal<br>Sustainability in the Next<br>Decade (2015)                      | 13693                  | Full Compliance.  |

**Table 7-3. Environmental Permitting Requirements.** 

| Law  | Agency Responsible | Permit, Agreement,<br>Authorization, or<br>Notification Required                                     |
|--|--------------------|--|
| American Bald and Golden<br>Eagle Protection Act of 1962,<br>as amended                            | USFWS              | No take permit is required.  |
| Comprehensive<br>Environmental Responses,<br>Compensation and Liability<br>Act of 1980, as amended | USEPA              | N/A  |
| Clean Water Act, Section 401   | VDEQ               | 401 Water Quality Certification anticipated.   |
| CZMA   | VDEQ               | CZMA Federal Consistency<br>Concurrence required;<br>concurrence received on<br>November 20, 2020.   |
| Coastal Barrier Resources<br>Act (CBRA)  | USFWS              | N/A  |
| Endangered Species Act of 1973   | USFWS/NMFS         | USFWS verification letter received August 21, 2020; NMFS concurrence received on September 21, 2020. |
| Fish and Wildlife<br>Coordination Act (FWCA)   | USFWS              | FWCA comments were received from USFWS on April 14, 2021.  |
| Magnuson-Stevens Fishery<br>Conservation and<br>Management Act                                     | NMFS               | Concurrence from NMFS received on September 29, 2020.  |
| Marine Mammal Protection<br>Act of 1972, as amended  | NMFS               | N/A; no authorization required.  |
| Marine Protection, Research, and Sanctuaries Act of 1972*  | USEPA              | N/A  |

| Law  | Agency Responsible  | Permit, Agreement,<br>Authorization, or<br>Notification Required   |
|--|---|--|
| Migratory Bird Treaty Act of 1918, as amended                            | USFWS   | No take permit required.   |
| National Historic Preservation<br>Act of 1966, as amended                | Advisory Council on Historic<br>Preservation, Virginia<br>Department of Historic<br>Resources | Concurrence Determination received from Virginia Department of Historic Resources on September 29, 2020. |
| Noise Control Act of 1972  | USEPA   | N/A  |
| Resource Conservation and<br>Recovery Act of 1976                        | USEPA, VDEQ   | N/A  |
| Section 28.2-1200 et seq. of<br>the Code of Virginia,<br>Submerged Lands | VMRC  | Subaqueous permit required for impacts to State-owned submerged lands channelward of mean low water.     |

N/A = Not Applicable; VDEQ = Virginia Department of Environmental Quality; NMFS = National Marine Fisheries Service; USEPA = U.S. Environmental Protection Agency; USFWS = U.S. Fish and Wildlife Service

### National Environmental Policy Act of 1969, as amended

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] §§ 4321 et seq.) and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500–1508 [the 1978 version of this rule was used because the NEPA process had been previously initiated prior to the 14 September 2020 implementation of the CEQ NEPA streamlining rule]). The NEPA requires that all Federal agencies use a systematic, interdisciplinary approach to protect the human environment. This approach promotes the integrated use of natural and social sciences in planning and decision-making that could have an impact on the environment. NEPA requires the preparation of an EIS for any major Federal action that could have a significant impact on quality of the human environmentand the preparation of an EA for those Federal actions that do not cause a significant impact but do not qualify for a categorical exclusion. The NEPA regulations issued by CEQ provide for a scoping process to identify and the scope and significance of environmental issues associated with a project. The process identifies and eliminates from further detailed study issues that are not significant. As previously stated, the USACE used this process to comply with NEPA and focus this CAP, Section 14, Emergency Streambank and Shoreline Protection, Newport News, Virginia

IFR/EA on the issues most relevant to the environment and the decision-making process. For a description ofthe agency, tribal, and public coordination completed to date and information on the NEPA scoping that was completed, please refer to Appendix A. Full compliance under

NEPA is anticipated in the future with signature of the Finding of No Significant Impact (FONSI). The draft FONSI is provided at the beginning of the report on page ii.

### **Clean Water Act**

This IFR/EA contains sufficient information to demonstrate that the Recommended Plan is in compliance with the Clean Water Act. The Clean Water Act, 404(b)(1) Report provided in Appendix A documents this project is in full compliance with Section 404 of the Clean Water Act.

The State Water Control Board issued conditional §401 Water Quality Certification for Regional Permit (RP) 19 (effective date 5 September 2018) as meeting the requirements of the Virginia Water Protection Permit Regulation. A copy of the RP- 19 including terms and conditions is provided in the Integrated Report/EA Environmental Appendix, Appendix A-3. The Recommended Plan appears to meet the requirements of the RP-19 and its associated Water Quality Certification, pending confirmation based on information to be developed during the Design and Implementation Phase. Therefore, this provides reasonable assurance that a WaterQuality Certification pursuant to Section 401 of the Clean Water Act could be issued for the Recommended Plan from the Virginia Department of Environmental Quality (VDEQ). A Water Quality Certification pursuant to Section 401 of the Clean Water Act would be obtained from the VDEQ prior to construction. All conditions of the Water Quality Certification would be implemented in order to minimize adverse impacts to water quality.

#### Wetlands

Section 404 of the Clean Water Act and 33 C.F.R. 336(c)(4) and 33 C.F.R. 320.4(b) require the USACE to avoid, minimize, and mitigate impacts to wetlands. There are no vegetated, tidal wetlands located at the project site. Impacts to vegetated tidal wetlands are not anticipated as a result of this project. Therefore, no wetland mitigation is required for this project.

### **Coastal Zone Management Act**

The Federal CZMA requires each Federal agency activity performed within or outside the coastal zone (including development projects) that affects land or water use, or natural resources of the coastal zone to be carried out in a manner which is consistent to the maximum extent practicable, i.e. fully consistent, with the enforceable policies of approved state management programs unless full consistency is prohibited by existing law applicable to the Federal agency.

To implement the CZMA and to establish procedures for compliance with its Federal consistency provisions, the U.S. Department of Commerce, NOAA, promulgated regulations which are contained in 15 C.F.R. Part 930. As per 15 CFR 930.37, a Federal agency may use its NEPA documents as a vehicle for its consistency determination.

The Virginia Coastal Management Program was established under the guidelines of the National Coastal Zone Management Act (1972) as a state-Federal partnership to comprehensively manage coastal resources. The VDEQ is the designated state coastal management agency and is responsible for the implementation of the state's Coastal Management Program. Implementation includes the direct regulation of impacts to coastal resources within the critical areas of the state including coastal waters, tidelands, beaches and beach dune systems; and indirect certification authority over Federal actions and state permit decisions within the eight coastal counties.

The goals of the Virginia Coastal Management Program are attained by enforcement of the policies of the State as codified within the Virginia Code of Regulations. "Policy" or

"policies" of the Virginia Coastal Management Program means the enforceable provisions of present or future applicable statutes of the Commonwealth of Virginia. The statutes cited as policies of the program were selected because they reflect the overall program goals of developing and implementing a balanced program for the protection of the natural resources, as well as promoting sustainable economic development of the coastal area. In accordance with the CZMA, it has been determined that the proposed project would be carried out in a manner that is fully consistent with the enforceable policies of the Virginia CMP. A Federal Consistency Determination was submitted to the Virginia DEQ on September 29, 2020, and a concurrence response was received from the Virginia DEQ on November 20, 2020 (Appendix A).

### Clean Air Act, as amended

There will be negligible to minor, temporary increases in air emissions from operation of construction equipment during construction operations. These emissions will be below de minimis levels. No conformity analysis is required for this project.

### **Fish and Wildlife Coordination Act**

Consultation pursuant to the Fish and Wildlife Coordination Act (FWCA) occurred with the USFWS. The FWCA letter was received from the USFWS on April 12, 2021. In their letter, the USFWS acknowledges Alternative 1 as a reasonable compromise between cost and ecological benefit. Consultation documentation is located in Appendix A. The project is in full compliance with the FWCA.

### **Endangered Species Act**

The Not Likely to Adversely Affect (NLAA) Program Verification Form, which evaluates potential impacts to protected species under the jurisdiction of NMFS, was submitted to

NMFS on September 18, 2020 to initiate informal consultation (Appendix A). The NMFS provided their concurrence with the USACE's determination on September 21,2020. Therefore, the proposed project is in full compliance with Section 7 of the ESA.

The USACE determined that the Recommended Plan may affect and is likely to adversely affect the Northern long-eared bat if present. The U.S. Fish and Wildlife Service (FWS) indicated in their verification letter dated 21 August 2020 that this project may affect the northern long-eared bat; however, any take that may occur as a result ofthe action is not prohibited under the ESA Section 4(d) rule. The FWS verified that the January 5, 2016 Programmatic Biological Opinion concludes the USACE's consultation responsibilities under ESA Section 7(a)(2) with respect to the northern long-eared bat in their letter dated 21 August 2020.

Table 7-4. Federally listed species known or with the potential to occur in the Action Area.

| Action Area.                         |                           |        |                     |   |
|--------------------------------------|---------------------------|--------|---------------------|---|
| Taxonomic<br>Category/Common<br>Name | Scientific Name           | Status | Critical<br>Habitat | Affect Determination                          |
| Fish                                 |                           |        |                     |   |
| Atlantic sturgeon                    | Acipenser<br>oxyrinchus   | E*     | Y                   | May Affect, Not Likely<br>to Adversely Affect |
| Shortnose sturgeon                   | Acipenser<br>brevirostrum | E      | N                   | May Affect, Not Likely<br>to Adversely Affect |
| Sea turtles                          |                           |        |                     |   |
| Leatherback sea turtle               | Dermochelys<br>coriacea   | Е      | N                   | May Affect, Not Likely<br>to Adversely Affect |
| Kemp's ridley sea<br>turtle          | Lepidochelys kempii       | E      | N                   | May Affect, Not Likely<br>to Adversely Affect |
| Hawksbill sea turtle                 | Eretmochelys<br>imbricata | Е      | N                   | May Affect, Not Likely<br>to Adversely Affect |

| Loggerhead sea turtle       | Caretta caretta           | E* | N | May Affect, Not Likely<br>to Adversely Affect |
|-----------------------------|---------------------------|----|---|---|
| Mammals                     |                           |    |   |   |
| Northern long-<br>eared bat | Myotis<br>septentrionalis | Т  | N | May Affect, Likely to<br>Adversely Affect     |

T = Threatened; E = Endangered; Y = Yes; N = No; \*Species status is reported as it pertains to the Chesapeake Bay Distinct Population Segment for Atlantic sturgeon and the Northeast Atlantic Ocean Distinct Population Segment for the Loggerhead sea turtle.

### Magnuson-Stevens Fishery Conservation and Management Act, as amended

This Act requires Federal action agencies to consult with the NMFS if a proposed action may adversely affect EFH. The USACE evaluated potential impacts on NMFS-managed fish species and EFH (Appendix A). Negligible to minor, adverse impacts to some EFH is anticipated, however no impacts are anticipated to substantively impact EFH. The NMFS concurred with the USACE's determination on September 29, 2020. Relevant correspondence is provided in Appendix A.

### **Anadromous Fish Conservation Act**

The project considered habitat impacts to the an adromous fish. Adverse, temporary, negligible to minor impacts are anticipated due to increased potential of total suspended solids and turbidity in the water column during construction.

### **Marine Mammal Protection Act**

The Marine Mammal Protection Act prohibits the take of marine mammals in the ROI. There would be no anticipated impacts to marine mammals with implementation of the Recommended Plan.

### **Section 106 of the National Historic Preservation Act**

The NHPA applies to properties listed in or eligible for listing in the NRHP; these are referred to as "historic properties." Historic properties eligible for listing in the NRHP include prehistoric and historic sites, structures, buildings, objects, and collections of these in districts. Section 106 of the NHPA and its implementing regulations at 36 CFR Part 800, require the lead Federal agency to assess the potential effects of an undertaking on historic properties that are within the proposed project's Area of Potential Effect, which is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 C.F.R. § 800.16[d]).

The USACE evaluated the potential for adverse impacts to archaeological or historic resources and determined there would be no adverse impacts to historic resources. A Phase 1 Archeological Survey of the site was not conducted. The Virginia DHR concurred with the

USACE's determination that no historic properties will be affected by the proposed undertaking on September 29, 2020.

### Resource Conservation and Recovery Act, as amended

The RCRA controls the management and disposal of hazardous waste. "Hazardous and/or toxic wastes," classified by the RCRA, are materials that may pose a potential hazard to human health or the environment due to quantity, concentration, chemical characteristics, or physical characteristics. This applies to discarded or spent materials that are listed in 40 CFR 261.31-.34 and/or that exhibit one of the following characteristics: ignitable, corrosive, reactive, or toxic. Radioactive wastes are materials contaminated with radioactive isotopes from anthropogenic sources (e.g., generated byfission reactions) or naturally occurring radioactive materials (e.g., radon gas, uranium ore). There are no RCRA generators in the vicinity of the project area.

### Comprehensive Environmental Response, Compensation and Liability Act

The CERCLA (or Superfund) governs the liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous substance disposal sites. There is no evidence or history of contamination at the project site under the CERCLA.

### **Executive Order 11988, Floodplain Management**

Federal agencies should avoid, to the extent possible, the long-and short-term adverse impacts associated with the occupancy and modification of the Base Floodplain (1% annual chance floodplain as defined by FEMA, and the avoidance of direct and indirect support of development in the Base Floodplain wherever there is a practicable alternative. Under the EO, USACE is required to provide leadership and take action to:

- a. Avoid development in the Base Floodplain unless it is the only practicable alternative; and
- b. Reduce the hazard and risk associated with floods; c. Minimize the impact of floods on human safety, health and welfare; and d. Restore and preserve the natural and beneficial values of the Base Floodplain. For critical facilities, the 0.2% annual chance floodplain should be evaluated.

From USACE ER 1165-2-26, in accordance with EO 11988, USACE uses the eight-step process below to address floodplain management, with project-specific responses:

- Determine if the proposed action is in the Base Floodplain. Due to location, type, and nature of the proposed action involving shoreline protection, all alternatives are located in the Base Floodplain.
- 2. If the action is in the Base Floodplain, identify and evaluate practicable alternatives to the action or to location of the action in the Base Floodplain. Chapter 2 discusses the process of considering, screening, and comparing

- alternatives. Due to location, type, and nature of the proposed action involving shoreline protection, all alternatives are located in the Base Floodplain.
- 3. If the action must be in the floodplain, advise the general public in the affected area and obtain their views and comments. As shown in Chapter 1, as part of NEPA, public scoping was conducted in April 2020 to solicit public comments on the study scope, identify potential measures to be included in the study, and to discuss potential issues to be addressed during the environmental impact analysis for the study. No comments were received with specific concerns for flooding or the Base Floodplain. Please refer to Appendix A for scoping coordination.
- 4. Identify beneficial and adverse impacts due to the action and any expected losses of natural and beneficial floodplain values. Where actions proposed to be located outside the Base Floodplain will affect the Base Floodplain, impacts resulting from these actions should also be identified. The Environmental Consequences section identifies beneficial and adverse impacts. There are no expected losses of natural and beneficial floodplain values with the proposed action.
- 5. If the action is likely to induce development in the Base Floodplain, determine if a practicable non-floodplain alternative for the development exists. Most of the study area is developed, such that the purpose of the proposed action is not to induce development, but to help protect existing public facilities.
- 6. As part of the planning process under the Principles and Guidelines, determine viable methods to minimize any adverse impacts of the action including any likely induced development for which there is no practicable alternative and methods to restore and preserve the natural and beneficial floodplain values. This should include reevaluation of the "no action" alternative. If the proposed action is properly constructed and maintained, any adverse impacts would be temporary and minimal. The project is not intended to induce development, but to restore and preserve the shoreline and river bank.
- 7. If the final determination is made that no practicable alternative exists to locating the action in the Base Floodplain, advise the general public in the affected area of the findings. Due to location, type, and nature of the proposed project involving flood risk management, all alternatives are located in the Base Floodplain. The public has been advised and informed of the study through an initial scoping process and public notification for review of the draft Integrated Feasibility Reportand Environmental Assessment.
- 8. Recommend the plan most responsive to the planning objectives established by the study and consistent with the requirements of the Executive Order. Alternative 1, Rock Sill with Vegetated Slope, is the best protection with the least amount of disruption to the environment for the longest life span and for a reasonable budget and is consistent with the requirements of the Executive Order.

### **Executive Order 11990, Protection of Wetlands**

This EO directs all Federal agencies to minimize the destruction, loss, or degradation of wetlands; and preserve and enhance the natural beneficial values of wetlands in the conduct of the agency's responsibilities. This project is in full compliance with this EO. There are no anticipated impacts to vegetated tidal wetlands resulting from implementation of the Recommended Plan.

### Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

In accordance with this EO, the USACE has determined that no group of people would bear a disproportionately high share of adverse environmental consequences resulting from the proposed work. The Recommended Plan is in full compliance with this EO.

### Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks

This EO ensures that all Federal actions address the unique vulnerabilities of children.In accordance with this EO, the USACE has determined that no children would bear a disproportionately high share of adverse environmental consequences resulting from the proposed work. The Recommended Plan is in full compliance with this EO.

### Migratory Bird Treaty Act; Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds

This Act makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. No take permits would be required, and the Recommended Plan is in full compliance with the Migratory Bird Treaty Act.

### 8 COORDINATION

The NEPA regulations issued by CEQ provide for a scoping process to identify the scope and significance of environmental issues associated with a proposed project. The process identifies issues important to the stakeholder community which includes the general public and federal and state resource agencies. The NEPA scoping process was initiated on Saturday April 11, 2020 with the publication of a legal notice in the Daily Press requesting public scoping comments and concluded on May 11, 2020. A public scoping notice was made available on the project website:

<u>www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/</u>. For copies of all scoping-related materials, please see Appendix A-5.

The draft Integrated Feasibility Report/EA was release for public and agency comment on November 6, 2020 for a 30-day review period. The draft report was available for download from the project website. A legal notice announcing the release of the draft Integrated Feasibility Report/EA was published in the Daily Press on Saturday, November 7, 2020. Additionally, certified letters were mailed to residents adjacent to the project site along River Road. A virtual public meeting was held on November 19, 2020 and was attended by several of the residents along River Road adjacent to the project site.

### 8.1 PUBLIC VIEWS AND RESPONSES

Only one email inquiry was received from the general public as a result of the scoping process. The inquiry related to potential viewshed impacts as a result of the proposed project and also mentioned the intent to construct a private pier in the future within the study area. No additional concerns or issues were raised as a result of the public scoping process.

During the public comment period on the draft IFR/EA, one comment was received from the general public. The comment and response are provided in Appendix A-4.

### 8.2 AGENCY RESPONSES

Agency scoping comments received during the scoping period identified general information recommended for inclusion in the draft Integrated Feasibility Report/Environmental Assessment. Agency scoping comments are provided in Appendix A-5. Consultation documentation with other federal and state resource agencies is also located in Appendix A.

Agency and Tribal coordination comments received during the public comment period on the draft IFR/EA are included along with responses in Appendix A-4.

### 9 PLAN IMPLEMENTATION REQUIREMENTS

Completion of this report by the Norfolk District must occur before the project can be constructed. The report must go out for public review for 30 days, and the North Atlantic Division Commander must approve the report. After approval, the feasibility phase ends, and the project moves to the design and implementation phase. Steps in this phase include:

- 1. Execution of a Project Partnership Agreement (PPA) The City of Newport News must declare their intent in a letter (see Appendix D) to enter into a PPA for the design and construction of the project. This letter must state they are willing and have the authority to sign a PPA. The PPA defines the obligations ofthe federal government and the sponsor in the construction, maintenance, and cost sharing of the project.
- 2. Preparation of the plans and specifications and land acquisition the Corps must complete plans and specifications for project construction, and project lands, easements, right-of-way, access routes, relocations, and disposal areas must be acquired by sponsor, and right-of-entry must be provided to the Corps.
- 3. Permits for Clean Water Act Section 404 and 401 and National Environmental Policy Act (NEPA) compliance must be obtained.
- 4. Construction contracts must be advertised and awarded; and
- 5. Project construction begins.

With respect to cost apportionment, the non-federal sponsor is responsible for a minimum of 35 percent of the total project costs to maximum of 50 percent during the design and implementation phase. In accordance with terms of the PPA, the non-federal sponsor must pay at least 5 percent of the total project costs in cash and provide all lands, easements, right-of-way, relocations, and disposal areas (LERRDs). The City of Newport News is eligible to receive full credit for the value of LERRD because the City of Newport News and private property owners share ownership of the land required for the project implementation. These LERRD requirements that are not owned by the City of Newport News must be obtained from the private property owners and provided by the City to construct the project. If the value of the non-federal sponsor's contribution is less than 35 percent of the total project costs, the non-federal sponsor must pay additional cash contribution so that its total contribution equals 35 percent of the total project costs. The federal project limit for CAP Section 14 is \$5,000,000. Any costs above the federal expenditure limit cannot be cost shared and would be 100 percent non-federal cost. The total project cost of Alternative 1 is \$3,748,000, of which \$1,311,800 is the sponsor's share. The Sponsor's 5 percent cash contribution would be \$187,400 (Table 9-1).

Table 9-1. Summary of Federal and Non-Federal Total Project Cost for Recommended Plan.

| Feature                  | Federal Cost | Non-Federal Cost | Total Cost |
|--------------------------|--------------|------------------|------------|
| LERRD                    | 681,000*     | 0*               | 681,000*   |
| Design & Implementation  |              | 0                |            |
| Construction Contract    | 2,293,000    | 0                | 2,293,000  |
| Engineering & Design     | 371,000      | 0                | 371,000    |
| Construction             |              |                  |            |
| Management               | 403,000      | 0                | 403,000    |
| Totals                   | 3,748,000    | 0                | 3,748,000  |
| Cash Contribution (5%)   | 0            | 187,400          | 187,400    |
| Add'l Contribution (30%) | 0            | 1,124,400        | 1,124,400  |
| Cost Share Percentage    | 65%          | 35%              | 100%       |
| Final Cost Allocation    | 2,436,000    | 1,312,000        | 3,748,000  |

- 1. \*Any LERRDs crediting for any administrative costs will be updated during Design and Implementation and included in the PPA; and
- 2. Costs were determined using October 2021 price levels.

Operations and Maintenance (O&M) costs are not included in the cost share. The non-federal Sponsor is responsible for 100% of the O&M costs, per ER 1105-2-100 Appendix G Section III F-23.

### 9.1 FEDERAL RESPONSIBILITIES

The USACE would be responsible for plans and specification as well as constructing the bank stabilization project. The sponsor would be responsible for right of way and easements and disposal lands. Project construction is contingent upon the sponsor and the USACE executing a PPA.

### 9.2 NON-FEDERAL RESPOSIBILITIES

Prior to implementation, the non-federal sponsor must:

- Provide without cost to the United States all lands, easements, right-of-way, access routes, relocations, and disposal areas necessary for project construction;
- 2. In accordance with the Water Resources Development Act of 1986 (PL 99-662), provide a cash contribution equal to at least 5 percent of the total cost (see Table 9-1);
- 3. Provide additional cash contribution such that the total non-Federal share is equal to 35 percent of the project total cost (see Table 9-1);
- 4. Hold and save the Unites States free from damages caused by the construction, operation, and maintenance of the project, excepting damages due to the fault or negligence of the United States or its contractors;

- 5. Maintain and operate the project after completion without cost to the United States;
- 6. Assume full responsibility for all project costs in excess of the Federal cost limitation of \$5,000,000; and
- 7. Execute a Project Partnership Agreement incorporating all required measures of local operation.

### 9.3 VIEW OF NON-FEDERAL SPONSOR, LETTER OF SUPPORT

Appendix D contains the City of Newport News's Letter of Support, Dated May 5, 2021, Explaining their support for the Recommended Plan. Appendix D also contains the City of Newport News Self Certification of financial capabilities for the decision document, stating their willingness and their ability to cost share in implementing the project.

### 10 LIST OF PREPARERS

- Ian Swisher, PMP, Project Manager/Plan Formulator, Planning Branch, Planning Resources Section, U.S. Army Corps of Engineers, Norfolk District
- 2. Richard Harr, PWS, CES, Project Manager/Plan Formulator, Planning Branch, PlanningResources Section, U.S. Army Corps of Engineers, Norfolk District
- 3. Paul Moye, P.E., Engineer, Planning Branch, Flood Plain Management Section, U.S. Army Corps of Engineers, Norfolk District
- 4. Candice Miranda, E.I.T. Engineer, Engineering Branch, Hydraulics and Hydrology, U.S. Army Corps of Engineers, Norfolk District
- 5. Kyle McElroy, P.E. Engineer, Engineering Branch, Hydraulics and Hydrology, U.S. Army Corps of Engineers, Norfolk District
- 6. John Haynes, Archeologist, Planning Branch, Environmental Analysis Section, U.S. Army Corps of Engineers, Norfolk District
- 7. Laura Frank, Economist, Planning Branch, Planning Resources Section, U.S. Army Corps of Engineers, Norfolk District
- 8. Justine Woodward, Biologist, Planning Branch, Environmental Analysis Section, U.S. Army Corps of Engineers, Norfolk District
- 9. Miranda Ryan, GIS Specialist, Operations Branch, GIS Section, U.S. Army Corps of Engineers, Norfolk District
- Keith Butler, Engineer, Engineering Branch, Cost Engineering Section,
   U.S. Army Corps of Engineers, Norfolk District
- 11. Jennifer Spitz, EIT, Engineer, Engineering Branch, Geo-Environmental Section, U.S. Army Corps of Engineers, Norfolk District
- 12. Jack Wall, P.E., Engineering Branch, Civil Engineering Section, U.S. Army Corps of Engineers, Norfolk District
- 13. Alicia Barrette, Real Estate Branch, U.S. Army Corps of Engineers, Norfolk District
- Mark Higgins, Office of Counsel, U.S. Army Corps of Engineers, Norfolk District
- Mark Haviland, Public Affairs Office, U.S. Army Corps of Engineers, Norfolk District

### 11 LIST OF AGENCIES AND INDIVIDUALS CONTACTED

| Agency Representative Names                   | Agencies/Governments  |
|---|---|
| Christine Vaccaro, Brian Hopper, Dave O'Brien | NOAA Fisheries  |
| Carrie Traver                                 | Environmental Protection Agency   |
| Troy Andersen, Chris Guy, Amy O'Donnell       | U.S. Fish and Wildlife Service  |
| Caitlin Rogers                                | Catawba Indian Nation   |
| Chief Gerald A. Steward                       | Chickahominy Tribe Eastern Division   |
| Erin Thompson-Paden                           | Delaware Nation   |
| Chief Samuel M. Bass                          | Nansemond Indian Nation   |
| Terry Clouthier                               | Pamunkey Indian Tribe   |
| Tyler Meader, Rene Hypes                      | Virginia Department of Conservation and Recreation - Division of Natural Heritage |
| Bettina Rayfield                              | Virginia Department of Environmental<br>Quality                                   |
| Samantha Henderson                            | Virginia Department of Historic Resources   |
| Amy Ewing                                     | Virginia Division of Wildlife Resources   |
| Jeffery Madden                                | Virginia Marine Resources Commission  |
| Individuals Contacted                         | Individuals Contacted   |
| Katherine Long and Phyllis Miller             | Dana Leaphart   |
| Brent and Sharon Mathison                     | Ryan Sykes  |
| Eric and Katherine Feldl                      | Donald and Sandra Britt   |
| Christopher Ellis and Denise Gillman          | Joy Tomlin  |
| Ralph and Carole Robinson                     | John and Ann Pizzano  |
| John Newell                                   | Princeton Investors LLC   |
| Vo Chinh and Thao Khau                        |   |

### 12 REFERENCES

Basner, Mathias and Wolfgang Babisch, and others, 2013. Auditory and non-auditory effects of noise on health. U.S. National Library of Medicine National Institutes of Health website. October 30, 2013. Retrieved from:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988259/.

Boon, J. D., Mitchell, M., Loftis, J. D., & Malmquist, D. M. 2018. Anthropocene Sea Level Change: A History of Recent Trends Observed in the U.S. East, Gulf, and West Coast Regions. Special Report in Applied Marine Science and Ocean Engineering (SRAMSOE)No. 467. Virginia Institute of Marine Science, College of William and Mary.

Chesapeake Bay Program. 2020. Migratory Fish. Retrieved from: https://www.chesapeakebay.net/discover/field-guide/all/fish/migratory\_fish.

City of Newport News Back River & Warwick River TMDL Action Plan. 2019. Retrieved from:

https://www.nnva.gov/DocumentCenter/View/16647/NN-Back-Warwick-River-TMDL-Action-Plan?bidId=.

Department of Environmental Quality. 2018. Impaired Waters List 303(d). Retrieved from: <a href="https://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityAssessments/Integrated">https://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityAssessments/Integrated</a> Report/2018/ir18 Appendix1a Category5 List.pdf.

Department of Environmental Quality. 2020. Virginia Environmental Geographic Infpromation Systems (VEGIS). Retrieved from:

https://apps.deg.virginia.gov/mapper\_ext/default.aspx?service=public/wimby.

Virginia Department of Conservation and Recreation. 2016. Overview of the Physiography and Vegetation of Virginia.

Federal Emergency Management Agency (FEMA). 2014. Flood Insurance Study and Flood Insurance Rate Maps, City of Newport News, Virginia Independent City; National Flood Hazard Layers. Retrieved from <a href="https://msc.fema.gov/portal/search">https://msc.fema.gov/portal/search</a>.

Hardaway, S., & Anderson, G.. 1980. Shoreline Erosion in Virginia. Educational series;no. 31. Virginia Institute of Marine Science, College of William and Mary. Retrieved from: <a href="https://doi.org/10.21220/V59N0Q">https://doi.org/10.21220/V59N0Q</a>.

Hardaway, C., & Byrne, R. J..1999. Shoreline Management In Chesapeake Bay. Special Report in Applied Marine Science and Ocean Engineering No. 356.; Virginia Sea Grant Publication no. VSG-99-11..Virginia.

Institute of Marine Science, College of William and Mary.

https://doi.org/10.21220/V5DB1XHardaway, S and G Anderson. 1980. Shoreline Erosion in Virginia. Retrieved from:

https://scholarworks.wm.edu/cgi/viewcontent.cgi?article=1980&context=reports.

James River Association. 2019. Retrieved from: <a href="https://thejamesriver.org/about-the-james-river/state-of-the-james/">https://thejamesriver.org/about-the-james/</a>.

National Oceanic Atmospheric Administration (NOAA). 2020. Tide Gage Data. Retrieved from <a href="https://co-ops.nos.noaa.gov/">https://co-ops.nos.noaa.gov/</a>.

National Oceanic Atmospheric Administration (NOAA). 2020a. Tide Gage Data. Retrieved from https://co-ops.nos.noaa.gov/.

National Oceanic Atmospheric Administration (NOAA), National Hurricane Center. 2020b. Archives/Tropical Cyclone Reports, Educational Resources/Historical Hurricane Summaries. Retrieved from: <a href="https://www.nhc.noaa.gov/data/tcr/">https://www.nhc.noaa.gov/outreach/history/</a>.

https://www.nhc.noaa.gov/outreach/history/.

Rice, K.C., B. Hong, and J. Shen. 2012. Assessment of salinity intrusion in the Jamesand Chickahominy Rivers as a result of simulated sea-level rise in Chesapeake Bay, East Coast, USA. Journal of Environmental Management 111:61-69.

Shen, J. and J. Lin. 2006. Modeling study of the influences of tide and stratification on age of water in the tidal James River. Estuarine, Coastal and Shelf Science 68:101-112.

Schnabel Engineering 2013. Geotechnical Engineering Data Report James River Bank Stabilization Project North Avenue and River Road Newport News, VA. Prepared for CH2M Hill.

Strauss, B., C. Tebaldi, S. Kulp, S. Cutter, C. Emrich, D. Rizza, and D. Yawitz. 2014. Virginia and the Surging Sea: A vulnerability assessment with projections for sea levelrise and coastal flood risk.

Climate Central Research Report. pp 1-29.Toxic Release Inventory (TRI) Program. Retrieved from <a href="https://www.epa.gov/toxics-release-inventory-tri-program on 08 June">https://www.epa.gov/toxics-release-inventory-tri-program on 08 June 2020</a>.

U.S. Army Corps of Engineers. 2020. FUDS Annual Report to Congress 2018 Location Map. Retrieved from:

:https://geoportaldmzu.usace.army.mil/s1portal/apps/webappviewer/index.html?id=879bce2d5add48a1be06e375ff942c6d.

U.S. Army Corps of Engineers. 1983. Dredging and Dredged Material Disposal Engineer Manual 111-2-5025, Office, Chief of Engineers, Washington, DC.

U.S. Census Bureau. 2020. Retrieved from: https://data.census.gov/cedsci/profile?g=0500000US51700.

U.S. Department of Transportation Federal Highway Administration. 2017. Retrieved from: <a href="https://www.fhwa.dot.gov/Environment/noise/construction\_noise/handbook/handbook/9">https://www.fhwa.dot.gov/Environment/noise/construction\_noise/handbook/handbook/9</a>.cfm.

U.S. Environmental Protection Agency (EPA). 2020. Toxic Release Inventory Program. Retrieved from: https://www.epa.gov/toxics-release-inventory-tri-program.

United States Environmental Protection Agency (USEPA). 2020a. EJSCREEN: Environmental Justice Screening and Mapping Tool. Retrieved from https://ejscreen.epa.gov/mapper/.

U.S. Environmental Protection Agency (USEPA). 1996. The Bureau of National Affairs. Retrieved from: https://www.gsa.gov/cdnstatic/Noise Control Act of 1972.pdf.

Watts, B. D. and M. A. Byrd. 2013. Virginia bald eagle nest survey: 2013 breeding season. Center for Conservation Biology, College of William and Mary and Virginia Commonwealth University, Williamsburg, VA. Retrieved from: <a href="https://ccbbirds.org/maps/#eagles">https://ccbbirds.org/maps/#eagles</a>.

### 13 RECOMMENDATION

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, relative sea level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot-high receding sandy bluff results in a continuing loss of land and is an imminent threat to existing public facilities and utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep eroding slope.

The Recommended Plan is the least cost option, Alternative 1 and involves a longitudinal rock sill running the length of the project area, earthen slope berm graded on a 1V:3H, 2900 tons of VDOT class III riprap, 800 tons of VDOT number 1 stone, 4300 cubic yards of fill, 1600 square yards of geotextile filter fabric, 35,000 square feet of seeding, and 700 cubic yards of debris removal. The project first cost of Alternative 1 is \$3,481,000. The total estimated federal cost-shared 65% is \$2,262,650 and the total estimated non-federal cost-shared 35% is \$1,218,350.

The City of Newport News is willing and financially capable of cost sharing in the project construction. The Corps of Engineers finds that the Recommended Plan will have no significant adverse environmental impacts, and an Environmental Impact Statement according to the National Environmental Policy Act of 1969 (PL 91-190) is not required. Therefore, the Corps of Engineers recommends that the selected plan, as generally described in this report, be approved for implementation under the authority of Section 14 of the Flood Control Act of 1946, as amended.

> Brian P. Hallberg Colonel, EN Commanding

# APPENDIX A ENVIRONMENTAL APPENDIX

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

## EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS

### FINAL INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

August 2021



# APPENDIX A-1 ENDANGERED SPECIES ACT SECTION 7 CONSULTATION DOCUMENTATION U.S. FISH AND WILDLIFE SERVICE

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS





### United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Virginia Ecological Services Field Office 6669 Short Lane Gloucester, VA 23061-4410

Phone: (804) 693-6694 Fax: (804) 693-9032 http://www.fws.gov/northeast/virginiafield/



In Reply Refer To: August 21, 2020

Consultation Code: 05E2VA00-2020-TA-4462

Event Code: 05E2VA00-2020-E-15839

Project Name: James River Shoreline Stabilization Project

Subject: Verification letter for the 'James River Shoreline Stabilization Project' project under

the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the

Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

### Dear Justine Woodward:

The U.S. Fish and Wildlife Service (Service) received on August 21, 2020 your effects determination for the 'James River Shoreline Stabilization Project' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take" prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

[1] Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

### **Action Description**

You provided to IPaC the following name and description for the subject Action.

#### 1. Name

James River Shoreline Stabilization Project

### 2. Description

The following description was provided for the project 'James River Shoreline Stabilization Project':

The project site is situated in Newport News along the north bank of the James River west of the James River Bridge (US Routes 17/258) and between Newmarket Creek and North Avenue, immediately adjacent to River Road. An approximately 600-foot section of riverbank along the James River is severely eroded due the combined effects of natural erosion processes including tidal, storm, and wind driven wave action and stormwater runoff. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, including River Road. The proposed shoreline stabilization project includes a rock sill, bank grading to achieve a slope of 3:1, and vegetative stabilization.

Approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/place/37.02047724642835N76.45842618955837W">https://www.google.com/maps/place/37.02047724642835N76.45842618955837W</a>



### **Determination Key Result**

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR

§17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

### **Determination Key Description: Northern Long-eared Bat 4(d) Rule**

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

### **Determination Key Result**

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

### **Qualification Interview**

- Is the action authorized, funded, or being carried out by a Federal agency?

  Yes
- 2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

  No
- 3. Will your activity purposefully **Take** northern long-eared bats? *No*
- 4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases — the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at <a href="https://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html">www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html</a>.

Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

7. Will the action involve Tree Removal?

Yes

- 8. Will the action only remove hazardous trees for the protection of human life or property? *No*
- 9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

## **Project Questionnaire**

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

Estimated total acres of forest conversion:
 If known, estimated acres of forest conversion from April 1 to October 31
 If known, estimated acres of forest conversion from June 1 to July 31

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

- 4. Estimated total acres of timber harvest *0*
- 5. If known, estimated acres of timber harvest from April 1 to October 31  $\it 0$
- 6. If known, estimated acres of timber harvest from June 1 to July 31 *0*

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

- 7. Estimated total acres of prescribed fire *0*
- 8. If known, estimated acres of prescribed fire from April 1 to October 31  $\it o$
- 9. If known, estimated acres of prescribed fire from June 1 to July 31 *0*

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?  $\theta$ 

### **APPENDIX A-2**

# ENDANGERED SPECIES ACT SECTION 7 CONSULTATION DOCUMENTATION NATIONAL MARINE FISHERIES SERVICE

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS







#### **GARFO ESA Section 7: NLAA Program Verification Form**

(Please submit a signed version of this form, together with any project plans, maps, supporting analyses, etc., to <a href="mailto:nmfs.gar.esa.section7@noaa.gov">nmfs.gar.esa.section7@noaa.gov</a> with "USACE NLAA Program: [Application Number]" in the subject line)

## **Section 1: General Project Details**

| Appli  | ication I                               | Number:                                  |        |                         |                                 |
|--------|---|--|--------|-------------------------|---------------------------------|
| Reini  | tiation:                                |  |        |                         |                                 |
| Appli  | icant(s):                               |  |        |                         |                                 |
| Perm   | it Type:                                |  |        |                         |                                 |
| Antic  | ipated p                                | project start date                       |        |                         |                                 |
| (e.g., | 10/1/20                                 | )20)                                     |        |                         |                                 |
| Antic  | ipated p                                | project end date                         |        |                         |                                 |
| (e.g., | 12/31/2                                 | 2022 – if there is no permit             |        |                         |                                 |
| expira | ation da                                | te, write "N/A")                         |        |                         |                                 |
|        |   |  |        |                         |                                 |
| Proje  | ct Type                                 | /Category (check all that apply to       | entire | action):                |                                 |
|        | Aquac<br>reef cr                        | ulture (shellfish) and artificial eation |        | Mitigation restoration) | (fish/wildlife enhancement or ) |
|        | Dredging and disposal/beach nourishment |  |        | Bank stabil             | lization                        |
|        | Piers, ramps, floats, and other         |  |        | If other, de            | scribe project type category:   |
|        | structures                              |  |        | , , , ,                 | ,                               |
| Town   | /City:                                  |  | Zip:   |                         |                                 |
| State: |   |  | Wate   | r body:                 |                                 |

| Proi    | Project/Action Description and Purpose  |   |                |                                       |                        |               |                      |  |
|---------|---|---|----------------|---------------------------------------|------------------------|---------------|----------------------|--|
| -       | (include relevant permit conditions that are not captured elsewhere on form): |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
| Туре    | e of Botto  | m Habitat Modified:                       | Perma          | ne                                    | nt/Ten                 | nporary:      | Area (acres):        |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
| D .     | , T .''   | 1 ( 42.625994)                            |                |                                       |                        |               |                      |  |
|         |   | de (e.g., 42.625884)                      |                |                                       |                        |               |                      |  |
|         |   | tude (e.g., -70.646114)<br>ater (MLW)(m)  |                |                                       |                        |               |                      |  |
|         |   | fater (MHW)(m)                            |                |                                       |                        |               |                      |  |
|         | th (m)  | Stressor Category                         | Max extent (m) |                                       |                        | (m)           |                      |  |
| of w    |   | (stressor that extends furthest di        |                | · · · · · · · · · · · · · · · · · · · |                        |               | into the water body: |  |
| body    |   | water body – e.g., turbidity plur         | ne; sou        | nd                                    |                        |               |                      |  |
| actio   | n area:   | pressure wave):                           |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
| Section | on 2: ESA   | <b>A-listed species and/or critical h</b> | abitat         | in                                    | the ac                 | tion area:    | }                    |  |
|         | A 41 a m 4 i a  | otunga on (all DDCa)                      |                |                                       | V                      | م بندالماند د | a a 455441a          |  |
|         | Atlantic  | sturgeon (all DPSs)                       |                | ]                                     | Kemp                   | o's ridley s  | ea turtie            |  |
|         | Atlantic  | sturgeon critical habitat                 |                |                                       | Logge                  | erhead sea    | turtle               |  |
|         |   | which DPS:                                |                | ٦                                     |                        | Atlantic D    |                      |  |
|         |   |   |                | _                                     | `                      |               | ,                    |  |
|         | Shortnose sturgeon  |   |                | $\dashv$                              | Leatherback sea turtle |               |                      |  |
|         | _   Shorthose sturgeon  |   |                | ┚╽                                    | Douth                  | or oden sed   |                      |  |
|         | Atlantic salmon (GOM DPS)   |   |                | ]                                     | North                  | Atlantic r    | ight whale           |  |
|         | Atlantic salmon critical habitat  |   |                |                                       |                        |               | ight whale           |  |
|         | (GOM D  | OPS)                                      |                |                                       | critica                | al habitat    |                      |  |
|         | Green se  | ea turtle (N. Atlantic DPS)               |                | 7                                     | Fin w                  | hale          |                      |  |
|         |   |   |                |                                       |                        |               |                      |  |
| * P16   | ease consu  | It GARFO PRD's ESA Section 7 M            | anner fo       | or F                                  | ESA-lis                | sted species  | and critical habitat |  |

<sup>\*</sup> Please consult GARFO PRD's ESA Section 7 Mapper for ESA-listed species and critical habitat information for your action area at: <a href="https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater">https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater</a>.

## Section 3: NLAA Determination (check all applicable fields):

If the Project Design Criteria (PDC) is met, select Yes. If the PDC is not applicable (N/A) for your project (e.g., the stressor category is not included for your project activity, or for PDC 2, your project does not occur within the range of the GOM DPS of Atlantic salmon), select N/A. If the PDC is applicable, but is not met, leave both boxes blank and provide a justification for that PDC in Section 4.

| a) G | a) GENERAL PDC |       |  |  |  |
|------|----------------|-------|--|--|--|
| Yes  | N/A            | PDC # | PDC Description  |  |  |
|      |                | 1.    | No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or designated critical habitat.   |  |  |
|      |                | 2.    | No portion of the proposed action will occur in the tidally influenced portion of rivers/streams where Atlantic salmon presence is possible from April 10–November 7.  Note: If the project will occur within the geographic range of the GOM DPS Atlantic salmon but their presence is not expected following the best available commercial scientific data, the work window does not need to be applied (include reference in project description).  |  |  |
|      |                | 3.    | No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as spawning grounds as follows:  i. Gulf of Maine: April 1–Aug. 31  ii. Southern New England/New York Bight: Mar. 15–Aug. 31  iii. Chesapeake Bay: March 15–July 1 and Sept. 15–Nov. 1  Note: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).                              |  |  |
|      |                | 4.    | No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as overwintering grounds, where dense aggregations are known to occur, as follows:  i. Gulf of Maine: Oct. 15–April 30 ii. Southern New England/ New York Bight: Nov. 1–Mar. 15 iii. Chesapeake Bay: Nov. 1–Mar. 15  Note: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description). |  |  |
|      |                | 5.    | Within designated Atlantic salmon critical habitat, no portion of the proposed action will affect spawning and rearing areas (PBFs 1-7).   |  |  |
|      |                | 6.    | Within designated Atlantic sturgeon critical habitat, no work will affect hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1).  |  |  |

| Yes | N/A                            | PDC #      | PDC Description  |  |  |  |
|-----|--------------------------------|------------|--|--|--|--|
|     |                                | 7.         | Work will result in no or only temporary/short-term changes in water temperature, water flow, salinity, or dissolved oxygen levels.  |  |  |  |
|     |                                | 8.         | If ESA-listed species are (a) likely to pass through the action area at the time of year when project activities occur; and/or (b) the project will create an obstruction to passage when in-water work is completed, then a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., physical or biological stressors such as turbidity and sound pressure must not create barrier to passage). |  |  |  |
|     |                                | 9.         | Any work in designated North Atlantic right whale critical habitat must have no effect on the physical and biological features (PBFs).   |  |  |  |
|     |                                | 10.        | The project will not adversely impact any submerged aquatic vegetation (SAV).  |  |  |  |
|     |                                | 11.        | No blasting or use of explosives will occur.   |  |  |  |
|     |                                |            |  |  |  |  |
|     |                                | _          | ressors are applicable to the action ply – use Stressor Category Table for guidance):  |  |  |  |
|     | Soun                           | d Pressur  | e  |  |  |  |
|     | Impingement/Entrapment/Capture |            |  |  |  |  |
|     | Turbidity/Water Quality        |            |  |  |  |  |
|     | Entanglement (Aquaculture)     |            |  |  |  |  |
|     | Habitat Modification           |            |  |  |  |  |
|     | Vesse                          | el Traffic |  |  |  |  |

|   |                   | Stressor Category                |                             |              |                 |                   |  |
|---|-------------------|----------------------------------|-----------------------------|--------------|-----------------|-------------------|--|
| Activity<br>Category  | Sound<br>Pressure | Impingement/ Entrapment/ Capture | Turbidity/<br>Water Quality | Entanglement | Habitat<br>Mod. | Vessel<br>Traffic |  |
| Aquaculture<br>(shellfish) and<br>artificial reef<br>creation | N                 | N                                | Y                           | Y            | Y               | Y                 |  |
| Dredging and disposal/beach nourishment                       | N                 | Y                                | Y                           | N            | Y               | Y                 |  |

|  |                   | Stressor Category                |                             |              |                 |                   |  |
|--|-------------------|----------------------------------|-----------------------------|--------------|-----------------|-------------------|--|
| Activity<br>Category   | Sound<br>Pressure | Impingement/ Entrapment/ Capture | Turbidity/<br>Water Quality | Entanglement | Habitat<br>Mod. | Vessel<br>Traffic |  |
| Piers, ramps,<br>floats, and other<br>structures                                       | Y                 | N                                | Y                           | N            | Y               | Y                 |  |
| Transportation<br>and development<br>(e.g., culvert<br>construction,<br>bridge repair) | Y                 | N                                | Y                           | N            | Y               | Y                 |  |
| Mitigation<br>(fish/wildlife<br>enhancement or<br>restoration)                         | N                 | N                                | Y                           | N            | Y               | Y                 |  |
| Bank<br>stabilization and<br>dam maintenance   | Y                 | N                                | Y                           | N            | Y               | Y                 |  |

### c) SOUND PRESSURE PDC

#### **Information for Pile Driving:**

If your project includes non-timber piles\*, please attach your calculation to this verification form showing that the noise is below the injury thresholds of ESA-listed species in the action area. The GARFO Acoustic Tool is available as one source, should you not have other information:

 $\underline{https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultation-technical-guidance-greater-atlantic}$ 

\*Sound pressure effects from timber and steel sheet piles were analyzed in the NLAA programmatic consultation, so no additional acoustic information is necessary.

|    | Pile material | Pile diameter/width | Number of piles | Installation method |
|----|---------------|---------------------|-----------------|---------------------|
|    |               | (inches)            | or piles        |                     |
| a) |               |                     |                 |                     |
| b) |               |                     |                 |                     |
| c) |               |                     |                 |                     |
| d) |               |                     |                 |                     |

| Yes  | N/A     | PDC#       | PDC Descript   | ion  |  |  |  |  |  |
|--|---------|------------|--|--|--|--|--|--|--|
| П  |         | 12.        | If pile driving is occurring during a time of year when ESA-listed species may |  |  |  |  |  |  |
|  |         |            |  | be present, and the anticipated noise is above the behavioral noise threshold, a   |  |  |  |  |  |
|  |         |            |  | "soft start" is required to allow animals an opportunity to leave the project  |  |  |  |  |  |
|  |         |            |  | vicinity before sound pressure levels increase. <i>In addition to using a soft start</i>   |  |  |  |  |  |
|  |         |            |  | ng of the work day for pile driving, one must also be used at any  |  |  |  |  |  |
|  |         |            | time following   | g cessation of pile driving for a period of 30 minutes or longer.  |  |  |  |  |  |
|  |         |            | strikes by the then two subs   | For impact pile driving: pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one minute wait period, then two subsequent 3-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving. |  |  |  |  |  |
|  |         |            | reduced energy<br>seconds of red   | pile installation: pile driving will be initiated for 15 seconds at cy followed by a one-minute waiting period. This sequence of 15 duced energy driving, one-minute waiting period will be repeated I times, followed immediately by pile-driving at full rate and                        |  |  |  |  |  |
|  |         | 13.        |  | Any new pile supported structure must involve the installation of $\leq$ 50 piles (below MHW).   |  |  |  |  |  |
|  |         | 14.        |  | er noise (pressure) is below (<) the physiological/injury noise ESA-species in the action area.  |  |  |  |  |  |
| d) II  | MPINC   | GEMENT     | /ENTRAINME   | ENT/CAPTURE PDC  |  |  |  |  |  |
| Infor  | matio   | n for Dre  | edging/Disposa   | l:   |  |  |  |  |  |
|  | of dre  | _          |  |  |  |  |  |  |  |
|  |         | e dredgin  |  | If "Yes", how many acres?  |  |  |  |  |  |
|  |         |            | was the last   |  |  |  |  |  |  |
|  | ge cycl |            |  | 70//77 11 1  |  |  |  |  |  |
|  | dredgi  | _          |  | If "Yes", how many acres?  |  |  |  |  |  |
|  |         |            | dredging   |  |  |  |  |  |  |
|  |         | red by per |  |  |  |  |  |  |  |
|  |         |            | on measures  |  |  |  |  |  |  |
| required (e.g., cofferdam, turbidity curtain): |         |            | iaiii, turbiuity   |  |  |  |  |  |  |
| If no exclusion measures required,             |         |            |  |  |  |  |  |  |  |
| explain why:                                   |         |            | ares required,   |  |  |  |  |  |  |
|  |         |            | ake Structures   |  |  |  |  |  |  |
|  |         | n size (mr |  |  |  |  |  |  |  |
|  | orary i | ,          | ,  |  |  |  |  |  |  |
|  |         |            |  |  |  |  |  |  |  |

| Yes   | N/A      | PDC#            | PDC Description  |  |  |  |
|-------|----------|-----------------|--|--|--|--|
|       |          | 15.             | Only mechanical, cutterhead, and low volume hopper (e.g., CURRITUCK,                   |  |  |  |
|       |          |                 | ~300 cubic yard maximum bin capacity) dredges may be used.                             |  |  |  |
|       |          | 16.             | No new dredging in Atlantic sturgeon or Atlantic salmon critical habitat               |  |  |  |
|       |          |                 | (maintenance dredging still must meet all other PDCs). New dredging outside            |  |  |  |
|       |          |                 | Atlantic sturgeon or salmon critical habitat is limited to one time dredge events      |  |  |  |
|       |          |                 | (e.g., burying a utility line) and minor ( $\leq 2$ acres) expansions of areas already |  |  |  |
|       |          |                 | subject to maintenance dredging (e.g., marina/harbor expansion).                       |  |  |  |
|       |          | 17.             | Work behind cofferdams, turbidity curtains, or other methods to block access of        |  |  |  |
|       |          |                 | animals to dredge footprint is required when operationally feasible or beneficial      |  |  |  |
|       |          |                 | and ESA-listed species are likely to be present (if presence is limited to rare,       |  |  |  |
|       |          |                 | transient individuals, exclusion methods are not necessary).                           |  |  |  |
|       |          | 18.             | Temporary intakes related to construction must be equipped with appropriate            |  |  |  |
|       | ш        |                 | sized mesh screening (as determined by GARFO section 7 biologist and/or                |  |  |  |
|       |          |                 | according to Chapter 11 of the NOAA Fisheries Anadromous Salmonid Passage              |  |  |  |
|       |          |                 | Facility Design) and must not have greater than 0.5 fps intake velocities, to          |  |  |  |
|       |          |                 | prevent impingement or entrainment of any ESA-listed species life stage.               |  |  |  |
|       |          | 19.             | No new permanent intake structures related to cooling water, or any other              |  |  |  |
|       |          |                 | inflow at facilities (e.g. water treatment plants, power plants, etc.).                |  |  |  |
| e) T  | URBII    | DITY/W <i>i</i> | ATER QUALITY PDC   |  |  |  |
| Infor | matio    | n for Tui       | rbidity Producing Activity (excluding disposal):                                       |  |  |  |
| ESA-  | specie   | s turbidit      | y control  |  |  |  |
| meas  | ures re  | quired (e.      | g., turbidity  |  |  |  |
| curta |          |                 |  |  |  |  |
| If no | turbidi  | ty contro       | l measures   |  |  |  |
| requi | red, ex  | plain why       | y:   |  |  |  |
| Infor | matio    | n for Dre       | edged Material Disposal:   |  |  |  |
|       | osal sit |                 |  |  |  |  |
|       |          | umber of        | trips to   |  |  |  |
| dispo | sal site | <b>:</b>        |  |  |  |  |
| Relev | ant di   | sposal site     | e  |  |  |  |
| perm  | it/spec  | ial condit      | ions required  |  |  |  |
| (NAI  | E: for c | ffshore d       | isposal,   |  |  |  |
|       |          | -               | C, or relevant   |  |  |  |
| Long  | Island   |                 | onsultation):  |  |  |  |
| Yes   | N/A      | PDC#            | PDC Description  |  |  |  |
|       |          | 20.             | Work behind cofferdams, turbidity curtains, or other methods to control                |  |  |  |
|       |          |                 | turbidity is required when operationally feasible or beneficial and ESA-listed         |  |  |  |
|       |          |                 | species are likely to be present (if presence is limited to rare, transient            |  |  |  |
|       |          |                 | individuals, turbidity control methods are not necessary).                             |  |  |  |
|       |          | 21.             | In-water offshore disposal may only occur at designated disposal sites that have       |  |  |  |
|       |          |                 | been the subject of ESA section 7 consultation with NMFS, where a valid                |  |  |  |
|       |          |                 | consultation is in place and appropriate permit/special conditions are included.       |  |  |  |

| Yes    | N/A                                 | PDC#        | PDC Description  |   |   |  |  |  |  |
|--------|-------------------------------------|-------------|--|---|---|--|--|--|--|
|        |                                     | 22.         | Any temporary  | y discharges must me  | et state water quality standards (e.g., no    |  |  |  |  |
|        |                                     |             |  |   | rations that may cause acute or chronic       |  |  |  |  |
|        |                                     |             | adverse reaction   | ons, as defined by EP   | A water quality standards criteria).          |  |  |  |  |
|        |                                     | 23.         |  |   | and improvements of existing discharge        |  |  |  |  |
|        |                                     |             | pipes or replac  | ement in-kind are all   | owed; no new construction of untreated        |  |  |  |  |
|        |                                     |             | discharges.  |   |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |
|        | f) ENTANGLEMENT PDC                 |             |  |   |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |
| Infor  | formation for Aquaculture Projects: |             |  |   |   |  |  |  |  |
| Appro  | oximat                              | te distance | e from shore   |   |   |  |  |  |  |
| (MH    | W)(m)                               | •           |  |   |   |  |  |  |  |
| Grow   | seaso                               | n begins (  | (approximate):   |   |   |  |  |  |  |
| Grow   | seaso                               | n ends (aj  | oproximate):   |   |   |  |  |  |  |
| Total  | numb                                | er of verti | cal lines:   |   |   |  |  |  |  |
| Total  | numb                                | er of hori  | zontal lines:  |   |   |  |  |  |  |
| Is any | y gear                              | seasonall   | y removed  |   |   |  |  |  |  |
| from   | the wa                              | iter? If ye | s, which parts   |   |   |  |  |  |  |
| and w  | vhen?                               |             |  |   |   |  |  |  |  |
|        | Aqua                                | culture G   | ear  | Acreage (total  | Type of Shellfish Cultivated                  |  |  |  |  |
|        |                                     |             |  | permit footprint)   |   |  |  |  |  |
| a)     |                                     |             |  |   |   |  |  |  |  |
| b)     |                                     |             |  |   |   |  |  |  |  |
| c)     |                                     |             |  |   |   |  |  |  |  |
| Yes    | N/A                                 | PDC#        | PDC Descripti  | on  |   |  |  |  |  |
|        |                                     | 24.         | Shell on botton  | m <50 acres with ma   | ximum of 4 corner marker buoys;               |  |  |  |  |
|        | П                                   | 25.         | Cage on botton   | m with no loose float   | ing lines <5 acres and minimal vertical lines |  |  |  |  |
|        |                                     |             |  | f cages, 4 corner mar   |   |  |  |  |  |
|        |                                     | 26.         | Floating cages   | in <3 acres in waters   | s and shallower than -10 feet MLLW with no    |  |  |  |  |
|        |                                     |             | loose lines and  | l minimal vertical lin  | es (1 per string of cages, 4 corner marker    |  |  |  |  |
|        |                                     |             | buoys);  |   |   |  |  |  |  |
|        |                                     | 27.         | Floating upwe  | ller docks in >10 feet  | MLLW.   |  |  |  |  |
|        |                                     | 28.         | Any in-water l   | ines, ropes, or chains  | must be made of materials and installed in a  |  |  |  |  |
|        |                                     |             | -  | -   | sk of entanglement by using thick, heavy,     |  |  |  |  |
|        |                                     |             | and taut lines t   | and taut lines that do not loop or entangle. Lines can be enclosed in a rigid |   |  |  |  |  |
|        |                                     |             | sleeve.  |   |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |
|        | g) HABITAT MODIFICATION PDC         |             |  |   |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |
| Yes    | N/A                                 | PDC#        | PDC Descripti  |   |   |  |  |  |  |
|        |                                     | 29.         | No conversion of habitat type (soft bottom to hard, or vice versa) for |   |   |  |  |  |  |
|        |                                     |             | aquaculture or   | reef creation.  |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |
|        |                                     |             |  |   |   |  |  |  |  |

|         | h) V                        | FSSFI T                           | RAFFIC PDC  |   |  |  |  |  |  |
|---------|-----------------------------|-----------------------------------|---|---|--|--|--|--|--|
|         |                             |                                   |   |   |  |  |  |  |  |
| Infor   | rmation for Vessel Traffic: |                                   |   |   |  |  |  |  |  |
|         | Te                          | emporary                          | Project Vessel Type   | Number of Vessels   |  |  |  |  |  |
| a)      |                             |                                   |   |   |  |  |  |  |  |
| b)      |                             |                                   |   |   |  |  |  |  |  |
| c)      |                             |                                   |   |   |  |  |  |  |  |
| ,       | Ve -                        | essels Ado<br>only inclu          | n-Commercial or Aquaculture<br>led<br>de if there is a net increase<br>irectly resulting from project)  | Number of Vessels<br>(if sum > 2, PDC 33 is not met and justification<br>required in Section 4) |  |  |  |  |  |
| a)      | Ctt                         | i cerry, mai                      | rectify restitiving from projects   |   |  |  |  |  |  |
| b)      |                             |                                   |   |   |  |  |  |  |  |
|         | Ty                          | pe of Co                          | mmercial Vessels Added  | Number of Vessels   |  |  |  |  |  |
|         | ,                           | •                                 | le if there is a net increase   | (if $> 0$ , PDC 33 is not met and justification   |  |  |  |  |  |
|         | di                          | rectly/indi                       | irectly resulting from project)   | required in Section 4)  |  |  |  |  |  |
| a)      |                             |                                   |   |   |  |  |  |  |  |
| b)      | tompo                       | rory/porm                         | anent vessel  |   |  |  |  |  |  |
| traffic | e, brie                     | fly explain<br>work, no           | n (e.g., all<br>net increase in   |   |  |  |  |  |  |
| Yes     | N/A                         | PDC #                             | PDC Description   |   |  |  |  |  |  |
|         |                             | 30.                               |   | ting within the action area to speed limits below eds of 4 knots maximum, while dredging.       |  |  |  |  |  |
|         |                             | 31.                               | Maintain a 1,500-foot buffer between project vessels and ESA-listed whales and a 150-foot buffer between project vessels and sea turtles unless the vessel is navigating to an in-water disposal site/activity. If the vessel is navigating to an in-water disposal site/activity, refer to and include the conditions contained in the appropriate GARFO-USACE/EPA consultation for the disposal site. |   |  |  |  |  |  |
|         |                             | 32.                               |   | must be limited to the greatest extent possible, as   |  |  |  |  |  |
|         |                             | 33.                               | dock/float/pier/boating facility) must not exceed two non-commercial vessels.  A project must not result in the permanent net increase of any commercial  |   |  |  |  |  |  |
|         |                             | vessels (e.g., a ferry terminal). |   |   |  |  |  |  |  |

### Section 4: Justification for Review under the NLAA Program

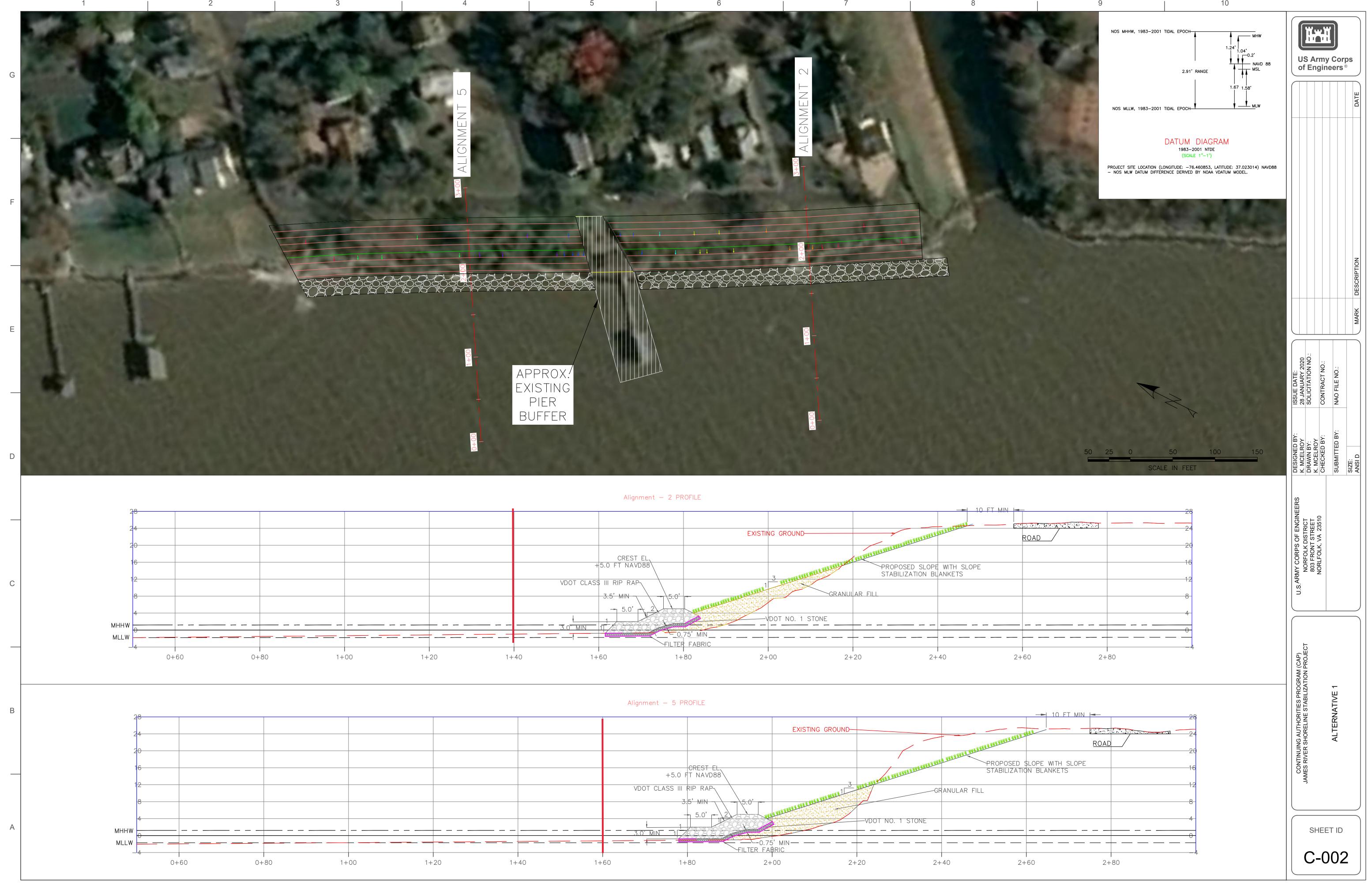
If the action is not in compliance with all of the General PDC and appropriate stressor PDC, but you can provide justification and/or special conditions to demonstrate why the project still meets the NLAA determination and is consistent with the aggregate effects considered in the programmatic consultation, you may still certify your project through the NLAA program using

this verification form. Please identify which PDC your project does not meet (e.g., PDC 9, PDC 15, PDC 22, etc.) and provide your rationale and justification for why the project is still eligible for the verification form.

To demonstrate that the project is still NLAA, you must explain why the effects on ESA-listed species or critical habitat are **insignificant** (i.e., too small to be meaningfully measured or detected) or **discountable** (i.e., extremely unlikely to occur). **Please use this language in your justification.** 

| PDC# | Justification |
|------|---------------|
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |

| Section | 5: USACE Verification of Determination  |  |  |  |  |  |  |  |
|---------|---|--|--|--|--|--|--|--|
|         | In accordance with the NLAA Program, USACE has decomplies with all applicable PDC and is not likely to accordance with the NLAA Program, the USACE has not likely to adversely affect listed species per the justing                          | dversely affect listed species. as determined that the action is |  |  |  |  |  |  |
|         | conditions provided in Section 4.  USACE Signature:   | Date:  |  |  |  |  |  |  |
|         | CONCL Signature.  | Bute.  |  |  |  |  |  |  |
| Section | 6: GARFO Concurrence  |  |  |  |  |  |  |  |
|         | In accordance with the NLAA Program, GARFO PRD determination that the action complies with all applicable adversely affect listed species or critical habitat.  |  |  |  |  |  |  |  |
|         | In accordance with the NLAA Program, GARFO PRD determination that the action is not likely to adversely a habitat per the justification and/or special conditions program.  | affect listed species or critical                                |  |  |  |  |  |  |
|         | GARFO PRD does not concur with USACE's determination that the action complies with the applicable PDC (with or without justification), and recommends an individual Section 7 consultation to be completed independent from the NLAA Program. |  |  |  |  |  |  |  |
|         | GARFO Signature:  | Date:  |  |  |  |  |  |  |





# Drawn Action Area & Overlapping S7 Consultation Areas

# Area of Interest (AOI) Information

Area: 2,222.93 acres

Jun 22 2020 14:52:09 Eastern Daylight Time

# Summary

| Name                        | Count | Area(acres) | Length(mi) |
|-----------------------------|-------|-------------|------------|
| Atlantic Sturgeon           | 3     | 3,153.83    | N/A        |
| Shortnose Sturgeon          | 1     | 1,051.28    | N/A        |
| Atlantic Salmon             | 0     | 0           | N/A        |
| Sea Turtles                 | 4     | 4,205.11    | N/A        |
| Atlantic Large Whales       | 0     | 0           | N/A        |
| In or Near Critical Habitat | 1     | 1,051.28    | N/A        |

# Atlantic Sturgeon

| # | Feature ID              | Species              | Life Stage | Behavior             | Zone           | From  | Until | From (2) | Until (2) | Area(acres |
|---|-------------------------|----------------------|------------|----------------------|----------------|-------|-------|----------|-----------|------------|
| 1 | ANS_JAM<br>_SUB_MA<br>F | Atlantic<br>sturgeon | Subadult   | Migrating & Foraging | James<br>River | 03/15 | 11/30 | N/A      | N/A       | 1,051.28   |
| 2 | ANS_JAM<br>_JUV_MAF     | Atlantic<br>sturgeon | Juvenile   | Migrating & Foraging | James<br>River | 01/01 | 12/31 | N/A      | N/A       | 1,051.28   |
| 3 | ANS_JAM<br>_ADU_MA<br>F | Atlantic<br>sturgeon | Adult      | Migrating & Foraging | James<br>River | 03/15 | 11/30 | N/A      | N/A       | 1,051.28   |

# Shortnose Sturgeon

| # | Feature ID              | Species            | Life Stage | Behavior             | Zone           | From  | Until | From (2) | Until (2) | Area(acres |
|---|-------------------------|--------------------|------------|----------------------|----------------|-------|-------|----------|-----------|------------|
| 1 | SNS_JAM<br>_ADU_MA<br>F | Shortnose sturgeon | Adult      | Migrating & Foraging | James<br>River | 03/01 | 11/30 | N/A      | N/A       | 1,051.28   |

## Sea Turtles

| # | Feature ID          | Species                        | Life Stage           | Behavior             | Zone  | From | Until | From (2) | Until (2) | Area(acres |
|---|---------------------|--------------------------------|----------------------|----------------------|---|------|-------|----------|-----------|------------|
| 1 | GRN_STS<br>_AJV_MAF | Green sea<br>turtle            | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 2 | KMP_STS<br>_AJV_MAF | Kemp's<br>ridley sea<br>turtle | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 3 | LTR_STS_<br>AJV_MAF | Leatherbac<br>k sea turtle     | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 4 | LOG_STS<br>_AJV_MAF | Loggerhea<br>d sea turtle      | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |

# In or Near Critical Habitat

| # | Species           | In or Near Critical Habitat Unit   | Area(acres) |
|---|-------------------|------------------------------------|-------------|
| 1 | Atlantic Sturgeon | Chesapeake Bay Unit 5: James River | 1,051.28    |

DISCLAIMER: Use of this App does NOT replace the Endangered Species Act (ESA) Section 7 consultation process; it is a first step in determining if a proposed Federal action overlaps with listed species or critical habitat presence. Because the data provided through this App are updated regularly, reporting results must include the date they were generated. The report outputs (map/tables) depend on the options picked by the user, including the shape and size of the action area drawn, the layers marked as visible or selectable, and the buffer distance specified when using the "Draw your Action Area" function. Area calculations represent the size of overlap between the user-drawn Area of Interest (with buffer) and the specified S7 Consultation Area. Summary table areas represent the sum of these overlapping areas for each species group.



# Drawn Action Area & Overlapping S7 Consultation Areas

# Area of Interest (AOI) Information

Area: 2,222.93 acres

Jun 22 2020 14:52:09 Eastern Daylight Time

# Summary

| Name                        | Count | Area(acres) | Length(mi) |
|-----------------------------|-------|-------------|------------|
| Atlantic Sturgeon           | 3     | 3,153.83    | N/A        |
| Shortnose Sturgeon          | 1     | 1,051.28    | N/A        |
| Atlantic Salmon             | 0     | 0           | N/A        |
| Sea Turtles                 | 4     | 4,205.11    | N/A        |
| Atlantic Large Whales       | 0     | 0           | N/A        |
| In or Near Critical Habitat | 1     | 1,051.28    | N/A        |

# Atlantic Sturgeon

| # | Feature ID              | Species              | Life Stage | Behavior             | Zone           | From  | Until | From (2) | Until (2) | Area(acres |
|---|-------------------------|----------------------|------------|----------------------|----------------|-------|-------|----------|-----------|------------|
| 1 | ANS_JAM<br>_SUB_MA<br>F | Atlantic<br>sturgeon | Subadult   | Migrating & Foraging | James<br>River | 03/15 | 11/30 | N/A      | N/A       | 1,051.28   |
| 2 | ANS_JAM<br>_JUV_MAF     | Atlantic<br>sturgeon | Juvenile   | Migrating & Foraging | James<br>River | 01/01 | 12/31 | N/A      | N/A       | 1,051.28   |
| 3 | ANS_JAM<br>_ADU_MA<br>F | Atlantic<br>sturgeon | Adult      | Migrating & Foraging | James<br>River | 03/15 | 11/30 | N/A      | N/A       | 1,051.28   |

# Shortnose Sturgeon

| # | Feature ID              | Species            | Life Stage | Behavior             | Zone           | From  | Until | From (2) | Until (2) | Area(acres |
|---|-------------------------|--------------------|------------|----------------------|----------------|-------|-------|----------|-----------|------------|
| 1 | SNS_JAM<br>_ADU_MA<br>F | Shortnose sturgeon | Adult      | Migrating & Foraging | James<br>River | 03/01 | 11/30 | N/A      | N/A       | 1,051.28   |

## Sea Turtles

| # | Feature ID          | Species                        | Life Stage           | Behavior             | Zone  | From | Until | From (2) | Until (2) | Area(acres |
|---|---------------------|--------------------------------|----------------------|----------------------|---|------|-------|----------|-----------|------------|
| 1 | GRN_STS<br>_AJV_MAF | Green sea<br>turtle            | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 2 | KMP_STS<br>_AJV_MAF | Kemp's<br>ridley sea<br>turtle | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 3 | LTR_STS_<br>AJV_MAF | Leatherbac<br>k sea turtle     | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |
| 4 | LOG_STS<br>_AJV_MAF | Loggerhea<br>d sea turtle      | Adults and juveniles | Migrating & Foraging | Massachus<br>etts (S of<br>Cape Cod)<br>through<br>Virginia | 5/1  | 11/30 | No Data  | No Data   | 1,051.28   |

# In or Near Critical Habitat

| # | Species           | In or Near Critical Habitat Unit   | Area(acres) |
|---|-------------------|------------------------------------|-------------|
| 1 | Atlantic Sturgeon | Chesapeake Bay Unit 5: James River | 1,051.28    |

DISCLAIMER: Use of this App does NOT replace the Endangered Species Act (ESA) Section 7 consultation process; it is a first step in determining if a proposed Federal action overlaps with listed species or critical habitat presence. Because the data provided through this App are updated regularly, reporting results must include the date they were generated. The report outputs (map/tables) depend on the options picked by the user, including the shape and size of the action area drawn, the layers marked as visible or selectable, and the buffer distance specified when using the "Draw your Action Area" function. Area calculations represent the size of overlap between the user-drawn Area of Interest (with buffer) and the specified S7 Consultation Area. Summary table areas represent the sum of these overlapping areas for each species group.

# APPENDIX A-3 CLEAN WATER ACT SECTION 404(B)(1) REPORT

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS



### Draft Evaluation of 404(b)(1) Guidelines

# CONTINUING AUTHORITIES PROGRAM, SECTION 14 EMERGENCY STREAMBANK AND SHORELINE PROTECTION

#### JAMES RIVER SHORELINE, NEWPORT NEWS

#### August 21, 2020

#### 1. Technical Evaluation Factors

| a. | Physical and Chemical Characteristics of | ıatic Ecosystem (4 | 40 CFR §§       |             |
|----|--|--------------------|-----------------|-------------|
|    | 230.20-230.25)(Subpart C)                |                    |                 |             |
|    |  | N/A                | Not Significant | Significant |
|    | (1) Substrate impacts                    |                    |                 |             |
|    | (2) Suspended particulates/turbidity     |                    | $\boxtimes$     |             |
|    | impacts                                  |                    |                 |             |
|    | (3) Water Quality Control                |                    | $\boxtimes$     |             |
|    | (4) Alteration of current patterns and   | $\boxtimes$        |                 |             |
|    | water circulation                        |                    |                 |             |
|    | (5) Alteration of normal water           | $\boxtimes$        |                 |             |
|    | fluctuations/hydro-period                |                    |                 |             |
|    | (6) Alteration of salinity gradients     |                    |                 |             |

The proposed shoreline stabilization project consists of the stabilization of approximately 600 linear feet of eroding riverbank along the James River in Newport News. The plan includes a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88).

Specifications of the plan include the following:

- 1. Earthen sloped berm graded on a 1V:3H;
- 2. 2,900 tons of VDOT Class III riprap and 800 tons of VDOT No. 1 stone;
- 3. 4,300 cubic yards of fill;
- 4. 1,600 square yards of geotextile filter fabric;
- 5. 35,000 square feet of seeding;
- 6. 700 cubic yards of debris removal.

The rock sill would be constructed a maximum of approximately 10 feet channelward of mean low water. Project designs are currently at 10% for the feasibility study; therefore, the exact siting of the rock sill would be determined during the Preconstruction, Engineering, and Design Phase. Construction of the proposed rock sill would result in negligible to minor, temporary adverse impacts to water quality. Turbidity would

increase along with total suspended solids in the nearshore environment during construction; however, turbidity impacts would be minimized by the use of turbidity curtains if determined feasible given the existing, shallow water depths of the site. Additionally, the nearshore benthic environment is largely comprised of sand which would be expected to settle quickly from the water column following disturbance. Following construction completion, the existing water quality conditions would be expected to return to ambient conditions. Additionally, stabilization of the shoreline may slightly improve localized water quality by minimizing erosion and sedimentation impacts. Overall, water quality impacts would be less than significant with construction of the rock sill and vegetated slope.

| b. Biological Characteristics of the Aquatic I                                      | Ecosyste | em (40 CFR §§ 23 | 0.30-230.32) |
|---|----------|------------------|--------------|
| (Subpart D)   |          |                  |              |
|   | N/A      | Not Significant  | Significant  |
| <ul><li>(1) Effect on threatened/endangered<br/>species and their habitat</li></ul> |          |                  |              |
| (2) Effect on the aquatic food web  |          |                  |              |
| (3) Effect on other wildlife (mammals, birds, reptiles, and amphibians)             |          |                  |              |

Pursuant to Section 7 of the Endangered Species Act (ESA) and Magnuson-Stevens Fishery Conservation and Management Act (MSA), coordination is underway with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) for the potential impacts that could occur directly and/or indirectly from the construction of the proposed rock sill and vegetated slope.

The project is also undergoing coordination with the USFWS and the Commonwealth of Virginia in accordance with the Fish and Wildlife Coordination Act (FWCA). Comments concerning the FWCA are anticipated to be received through the National Environmental Policy Act (NEPA) process from USFWS.

Informal consultation with the NMFS and USFWS is anticipated because of the potential minor, adverse effects to listed threatened and endangered species resulting from the proposed project. The analysis and findings for listing species and critical habitat are described in detail in the Special Status Species Section of the Integrated Feasibility Report and Environmental Assessment.

As described in the draft Integrated Feasibility Report and Environmental Assessment, potential impacts may affect but are not likely to adversely affect the following federally listed species: the northern long-eared bat (*Myotis septentrionalis*) under the jurisdiction of the USFWS, and the Atlantic sturgeon (*Acipenser oxyrinchus*), shortnose sturgeon (*Acipenser brevirostrum*), leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*), hawksbill sea turtle (*Eretmochelys imbricata*), and loggerhead sea turtle (*Caretta caretta*) under the jurisdiction of the NMFS.

Federal action agencies are required to consult with the NMFS if a proposed action may affect Essential Fish Habitat (EFH) pursuant to the MSA. Minor, adverse effects on EFH are being addressed through coordination with the NMFS. Impacts to fishery resources and Essential Fish Habitat would be less than significant as a result of the construction of a rock sill and vegetated slope. The EFH Assessment in the Environmental Appendix describes species with EFH in the vicinity of the project site and evaluates the impacts to Essential Fish Habitat for designated species.

| c. Special Aquatic Site (40 CFR §§ 230.40-230.4  | 45) (Subp   | part E)   |                               |
|--|---|---|-------------------------------|
|  | N/A   | Not Significant   | Significant                   |
| (1) Sanctuaries and refuges  |   |   |                               |
| (2) Wetlands   | $\boxtimes$   |   |                               |
| (3) Mud flats  | $\boxtimes$   |   |                               |
| (4) Vegetated shallows   | $\boxtimes$   |   |                               |
| (5) Coral reefs  | $\boxtimes$   |   |                               |
| (6) Riffle and pool complexes  |   |   |                               |
| impacts to tidal, vegetated wetlands resulting from<br>vegetated slope. Nearshore sediments consist of<br>in the vicinity of the project site. Additionally, the<br>aquatic vegetation due to its absence from the pro-<br>d. Human Use Characteristics (40 CFR §§ | of sand; the same of the same | herefore there are<br>be no impacts to s<br>e.<br>230.54) (Subpart F) | no mudflats<br>submerged<br>) |
| <u></u> -  | N/A   | Not Significant   | Significant                   |
| <ul><li>(1) Effects on municipal and private<br/>water supplies</li></ul>  | $\boxtimes$   |   |                               |
| (2) Recreational and Commercial fisheries impacts  |   |   |                               |
| (3) Effects on water-related recreation  | n 🗆   | $\boxtimes$   |                               |
| (4) Aesthetic impacts  | · H   | $\square$   | Ħ                             |
| (5) Effects on parks, national and   | $\overline{\boxtimes}$  |   |                               |
| historical monuments, national   | <del></del>   | —   |                               |
| motorical monamonto, national  |   |   |                               |

Potential impacts to the following resources were examined: aesthetics, air quality, bathymetry, hydrology and tidal processes, climate change and greenhouse gas emissions, cultural resources, fishery resources and essential fish habitat, floodplains, geology, physiography, and topography, hazardous, toxic, and radioactive waste, noise and vibration, occupational health and safety, recreation, socioeconomics, special status species, vegetation, water quality, wildlife, and transportation. The anticipated impacts to these resources areas analyzed ranged from adverse to beneficial, temporary to permanent, and negligible to moderate. There are no major, adverse

research sites, and similar preserves

impacts to any resource areas as a result of construction of the rock sill and vegetated slope. Accordingly, there are no significant resource impacts associated with implementation of the proposed shoreline stabilization project.

The proposed construction of a rock sill with a vegetation slope would result in beneficial, permanent minor effects to the aesthetic environment. Prior to construction, the project site would need to be cleared of all trees and roots, stumps, and vegetation. Debris removal would be required within the project limits of the river bank slopes and up to approximately 40 feet offshore from the shoreline or as shown in the design drawings. The removal of the debris on the shoreline and the placement of the rock sill would improve the aesthetic environment. The proposed vegetated slope would be planted with native grasses and potentially other native vegetation (if determined necessary in the future) adjacent to River Road to abate stormwater runoff where feasible. Any vegetation, such as native grasses, that may be planted adjacent to River Road would be expected to be maintained by the City of Newport News Public Works Department.

During construction, there would be adverse, temporary, minor impacts to the aesthetic environment resulting from the use of construction equipment and a staging area that would be present along River Road and/or the use of marine equipment, such as a crane-mounted work barge, that would occupy the nearshore areas until the project is fully constructed. Overall, impacts to the aesthetic environment would be less than significant with the proposed construction of a rock sill and vegetated slope.

If site access by water is required for construction, temporary, minor impacts to recreational boating activities in the nearshore environment may occur. Small, recreational vessels would be expected to avoid the nearshore environment during construction.

There are existing privately-owned parcels within the project footprint that have the potential to be utilized for recreational purposes by property owners in the future for access to navigable waters. As such, the potential exists for minor to moderate, permanent adverse impacts to recreational that would be impacted by the proposed construction of a rock sill and vegetated slope. However, impacts to recreation would be less than significant.

#### 2. Evaluation of Dredged or Fill Material (40 CFR § 230.60) (Subpart G)

|    | those appropriate)   |
|----|--|
|    | availability of possible contaminants in dredged or fill material. (Check only |
| a. | The following information has been considered in evaluating the biological     |

|  | (1) | ) Physica | l characteristics |
|--|-----|-----------|-------------------|
|--|-----|-----------|-------------------|

(2) Hydrography in relation to known or anticipated sources of contaminants

 $\boxtimes$  (3) Results from previous testing of the material in the vicinity of the project

|  | (4) Known, significant, sources of persistent pesticides from land runoff or percolation   |
|--|--|
|  | (5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances   |
|  | (6) Other public records of significant introduction of contaminants from industries, municipalities or other sources  |
|  | (7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge/fill  |
|  | (8) Other sources (specify)  |
| producer:<br>Assessm   | ting conditions for hazardous, toxic, and radioactive waste and materials is are discussed in the Draft Integrated Feasibility Report and Environmental pent. It is anticipated as a standard practice that only clean fill material rating no potential for contaminants would be used as backfill to construct the   |
|  | e currently no Hazardous, Toxic, or Radioactive Waste (HTRW) producers to the potential project impact sites that discharge effluents near the project   |
| waste assoil spills exprevention potential however, Additional store, and ln summa | build be no anticipated releases of petroleum, hazardous, toxic, or radioactive sociated with construction of the rock sill and vegetated slope. A potential for exists with vessel and construction equipment in the area, but accident and spill on plans included in the contract specifications would prevent most spills. The exists for negligible to minor, temporary adverse impacts if a spill occurred, adherence to the accident and spill prevention plan would mitigate these risks. Ally, the construction contract would include requirements to properly manage, dispose of all fuels and materials generated by or used for the project. ary, impacts associated with hazardous, toxic, and radioactive waste would be significant. |
| re<br>co<br>e:   | an evaluation of the appropriate information in 2a above indicated that there is eason to believe the proposed dredged or fill material is <u>not</u> a carrier of ontaminants, of that levels of contaminants are substantively similar at attraction and disposal sites and <u>not</u> likely to exceed constraints. The material neets the testing exclusion criteria.  |

# 3. Disposal Site Delineation (40 CFR § 230.11(f))

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

| <ul> <li>☐ (1) Depth of water at disposal site</li> <li>☐ (2) Current velocity, direction, and varial</li> <li>☐ (3) Degree of turbulence</li> <li>☐ (4) Water volume stratification</li> <li>☐ (5) Discharge vessel or fill speed and dir</li> <li>☐ (6) Rate of discharge/fill</li> <li>☐ (7) Dredged material characteristics (con material, settling velocities)</li> <li>☐ (8) Number of discharges/fill per unit of the settling velocities</li> </ul> | rection<br>nstituents, amo   |  |
|--|--|--|
| $\square$ (9) Other factors affecting rates and patt   | erns of mixing   | (specify)  |
| There are no dredging operations associated that all disposal of material, including the rem the shoreline, would be disposed of at a certicolor Clean Water Act Section 401 water quality commonwealth of Virginia for this project. A will be coordinated and obtained prior to the  | noval of existing<br>ified, upland dis<br>ertification is re<br>any and all appl | g debris currently on sposal facility. A equired from the licable authorizations |
| <ul> <li>b. An evaluation of the appropriate factors in 4 site and/or size of mixing zone are acceptable.</li> </ul>   |  |  |
| A Actions to Minimize Adverse Effects (40 CED SS   | , <u></u>  | <del></del>  |
| 4. Actions to Minimize Adverse Effects (40 CFR §§  | 230.70-230.77  | / )(Subpart H)   |
| All appropriate and practicable steps have beer recommendation of Section 230.70-230.77 to e   |  | • •  |
| proposed discharge/fill.   | YES ⊠  | NO 🗌   |
| It is anticipated that the impacts would not be signifi<br>minimized to the maximum extent practicable. Best<br>employed to ensure minimal adverse effects associa<br>sill and vegetated slope.  | t management   | practices would be   |
| 5. Factual Determination (40 CFR § 230.11)   |  |  |
| A review of appropriate information as identified there is minimal potential for short or long-term proposed discharge/fill as related to:   |  |  |
| <ul> <li>☒ a. Physical substrate at the disposal site (re</li> <li>☒ b. Water circulation, fluctuation &amp; salinity (re</li> <li>☒ c. Suspended particulates/turbidity (review)</li> </ul>   | eview sections   | 2a 3, 4, & 5)  |

|  | d. Contaminant availability (review sections 2a, 3, & 4) e. Aquatic ecosystem structure and function (review set f. Disposal site (review sections 2, 4, & 5) g. Cumulative impact on the aquatic ecosystem h. Secondary impacts on the aquatic ecosystem  |                          | ns 2b, c; 3, & 5)  |
|--|--|--------------------------|--|
| Feasibili<br>and cum<br>beneficia<br>minimal | al impacts to environmental resources are described in lity Report and Environmental Assessment. The anticipolic nulative impacts based on available existing data range fal, temporary to permanent, and negligible to minor or potential for short or long-term environmental effects cary impacts associated with construction of the propose | e from<br>mode<br>or cun | direct or indirect<br>n adverse to<br>erate. There is<br>nulative and/or |
| 6. Revi                                      | iew of Compliance (40 CFR § 230.10(a)-(d) (Subpart B   | )                        |  |
| A revindicates                               | view of the Draft Integrated Feasibility Report and Envi<br>s that:  | ronm                     | ental Assessment   |
| a.   | The discharge/fill represents the least environmentally alternative and if in a special aquatic site, the activity discharge/fill must have direct access or proximity to, aquatic ecosystem to fulfill its basic purpose (if no, se information gathered for EA alternative);  YES  | asso<br>or be            | ciated with the e located in the   |
| b.   | The activity does not appear to 1) violate applicable s standards or effluent standards prohibited under Sectionardize the existence of Federally designated man section 2b and check responses from resource and wagencies;   | tion 3                   | 307 of the CWA; 2)<br>anctuary (if no, see                               |
| C.   | The activity will not cause or contribute to significant of the U.S. including adverse effects on human health, I dependent on the aquatic ecosystem, ecosystem diversability, and recreational, aesthetic, and economic variety;  YES   | ife sta<br>ersity        | ages of organisms<br>, productivity and                                  |
| d.   | Appropriate and practicable steps have been taken to adverse impacts of the discharge/fill on the aquatic ec   |                          | •  |
|  | section 5); YES ⊠  |                          | NO 🗌   |

The proposed construction of a rock sill and vegetated slope to stabilize the eroding shoreline is anticipated to be the preliminary least environmentally damaging practicable alternative (LEDPA). All appropriate and practicable steps would be employed to ensure minimal adverse effects of the proposed discharge/fill associated with construction of the stone sill to human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values. The project would be designed to not violate applicable state water quality standards or effluent standards prohibited under Section 307 of the CWA.

### 7. Findings

|               | e proposed disposal site for discharge of dredged or fill material complies th the Section 404 (b)(1) guidelines   |
|---------------|--|
| wi            | e proposed disposal site for discharge of dredged or fill material complies th the Section 404(b)(1) guidelines with the inclusion of the following inditions: |
|               | oosed disposal site for discharge of dredged or fill material does not<br>h the Section 404(b)(1) guidelines for the following reason(s):                      |
| ☐ (1)         | There is a less damaging practicable alternative   |
| $\square$ (2) | The proposed discharge/fill will result in significant degradation of the aquatic ecosystem  |
| ☐ (3)         | The proposed discharge/fill does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem                      |



Fort Norfolk, 803 Front Street Norfolk, VA 23510-1011

#### **REGIONAL PERMIT**

Effective Date: September 5, 2018 Expiration Date: September 5, 2023

#### I. <u>AUTHORIZED ACTIVITIES</u>:

18-RP-19, Regional Permit 19 (RP), authorizes living shorelines, riprap revetments, bulkheads, breakwaters, groins, jetties, spurs, baffles, aquaculture activities and boat ramps. A living shoreline is defined as a shoreline management practice that provides erosion control and water quality benefits; protects, restores, or enhances natural shoreline habitat; and maintains coastal processes through the strategic placement of plants, stone, sand fill, and other structural and organic materials. The Norfolk District encourages the use of living shorelines as the preferred alternative for stabilizing tidal shorelines where viable.

18-RP-19 authorizes the following activities, subject to the conditions, limitations, and descriptions set out further herein:

- 1. Living Shoreline Group 1: Non-structural activities that provide substrate necessary to support wetland vegetation and/or beach nourishment.
- 2. Living Shoreline Group 2: Sill structures with tidal marsh and/or associated sandy fill material.
- 3. Low breakwaters and associated sandy fill material.
- 4. Bulkheads, riprap, and associated backfill and/or excavation, including bulkhead repair and/or replacement.
- 5. Groins, jetties, spurs and/or baffles and associated sandy fill material.
- 6. Aquaculture or mariculture activities.
- 7. Boat ramps and accessory structures, including any fill or excavation for installation.

#### II. AUTHORITIES:

For projects located within the Commonwealth of Virginia, project proponents are hereby authorized by the Secretary of the Army and the Chief of Engineers pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) and Section 404 of the Clean Water Act (33 U.S.C. § 1344) to perform the aforementioned work in all waters of the U.S. pursuant to the terms and conditions herein.

18-RP-19

Activities receiving written authorization under this RP do not require further authorization under the provisions contained in 33 CFR Part 325 unless the District Engineer determines, on a case-by-case basis, that additional review is in the public interest. All work undertaken outside the following conditions, terms, and limitations will require separate Department of the Army authorization.

#### III. STATE AND LOCAL APPROVALS:

- 1. Prospective permittees may be required to obtain additional State and/or Local approvals prior to commencement of work in waters of the U.S. from the Virginia Department of Environmental Quality (DEQ), the Virginia Marine Resources Commission (VMRC) and/or the Local Wetlands Board (LWB). You may contact the DEQ at (804) 698-4000, the VMRC at (757) 247-2200, and/or your local government office for further information concerning their permit requirements.
- 2. The State Water Control Board provided conditional §401 Water Quality Certification for the 18-RP-19. As such, the activities that qualify for this RP meet the requirements of Department of Environmental Quality's (DEQ) Virginia Water Protection Permit Regulation, provided that the permittee abides by the §401 Water Quality Certification condition, below, and all of the terms and conditions of 18-RP-19.

#### §401 Water Quality Certification Conditions:

In <u>non-tidal</u> surface waters of Virginia, for activities listed in #3 (low breakwaters and associated sandy fill material), #4 (bulkheads, riprap, and associated backfill and/or excavation, including bulkhead repair and/or replacement) and #5 (groins, jetties, spurs and/or baffles and associated sandy fill material) the following conditions apply:

- a) Stabilization activities shall not be placed for the purpose of a stream diversion.
- b) Stabilization activities shall not permanently impact more than 1,500 linear feet of any type of non-tidal stream bed.
- c) For maintenance of bulkhead structures, the discharge shall not increase the capacity of an impoundment or reduce the quantity of instream flows downstream.
- d) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in Virginia.

For activities listed in #6 (aquaculture or mariculture activities) the following conditions apply:

- a) The activity shall comply with the conditions of any Virginia Pollutant Discharge Elimination System (VPDES) permit issued for the facility.
- b) The associated activities shall not include a surface water withdrawal or diversion unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.
- c) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in Virginia.

In <u>non-tidal</u> surface waters of Virginia, for activities listed in #7 (boat ramps and accessory structures, included any fill or excavation for installation) the following conditions apply:

Construction of boat ramps in non-tidal waters that do not meet the following criteria require application to DEQ for consideration of a VWP permit:

- (a) The discharge into surface waters is 50 cubic yards or less of concrete, rock, crushed stone or gravel into forms, or in the form of pre-cast concrete planks or slaps, unless waived in writing by the Corps district engineer because the discharge will result in no more than minimal adverse environmental effects:
- (b) The boat ramp is 20 feet or less in width, unless waived in writing by the Corps district engineer because the discharge will result in no more than minimal adverse environmental effects;
- (c) The base material is crushed stone, gravel or other suitable material;
- (d) The excavation is limited to the area necessary for site preparation and all excavated material is removed to an area that has no surface waters:
- (e) No material is placed in special aquatic sites, including wetlands.

In <u>tidal</u> waters of Virginia, for activities listed in #3, #4, #5, and #7, the project proponent must obtain any applicable, required permits issued by the Virginia Marine Resources Commission.

- 3. Those activities on the Potomac River extending channelward of the mean low water line may require authorization by the Virginia Marine Resources Commission (VMRC) and/or the Maryland Department of Natural Resources.
- 4. Authorization may also be needed from the Tennessee Valley Authority for projects constructed on the Clinch and Holston Rivers.
- 5. Pursuant to the Coastal Zone Management Act (CZMA) of 1972, the Virginia Department of the Environmental Quality, Virginia Coastal Zone Management Program completed its review of the Federal Consistency Determination and issued its conditional concurrence on August 16, 2018. Specifically, DEQ

concurs that the RPs and General Conditions are consistent to the maximum extent practicable with the Virginia CZM Program provided that the following conditions are satisfied:

- a) Prior to construction, applicants shall obtain all required permits and approvals for the activities to be performed that are applicable to the enforceable policies and that applicants adhere to all conditions contained therein.
- b) The activities that qualify for the RPs meet the requirements of DEQ's Virginia Water Protection Permit Regulation and the permittee abides by the conditions of the RP as certified under Section 401 of the Clean Water Act.
- Permittees should ensure that their projects are designed and constructed in a manner consistent with all State and Local requirements pursuant to the Chesapeake Bay Preservation Act (CBPA) and the Chesapeake Bay Preservation Area Designation and Management Regulations.
- 7. Authorizations under this RP do not supersede State or Local government authority or responsibilities pursuant to the Chesapeake Bay Preservation Act, the Virginia Tidal Wetlands Act, or to any State or Local laws or regulations.

#### IV. PROCEDURES:

- 1. Prospective permittees must submit a pre-construction notification (PCN) in accordance with the procedures outlined below and must receive written authorization from the Corps before any work may begin. This RP shall not be interpreted as authorizing any work other than which is outlined above and which strictly meet all terms and conditions set out herein. All work undertaken that does not strictly comply with the following terms, conditions, standards and limitations will require separate Department of the Army authorization.
- 2. Within Virginia, the U.S. Army Corps of Engineers, Norfolk District encourages perspective permittees to utilize the Joint Permit Application (JPA) as the preconstruction notification. The JPA is also used to apply for corresponding permits from the Virginia Marine Resources Commission, the Virginia Department of Environmental Quality, and/or Local Wetlands Boards. The JPA process and JPA forms are used by the Corps, the VMRC, the DEQ, and the LWB for permitting purposes involving tidal and/or non-tidal water, tidal and/or non-tidal wetlands, and/or dune/beach resources, including, but not limited to, construction, dredging, filling, or excavation. Read the directions on the application carefully to determine how many copies must be submitted to the VMRC, who acts as the clearinghouse for permit applications. Prospective permittees may obtain paper copies of the Joint Permit Applications by calling the Corps at 757-201-7652, or by downloading and using one of the two versions of the JPA on the Norfolk District Regulatory Webpage: <a href="http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx">http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx</a>

### V. PERMIT SPECIFIC CONDITIONS:

# ACTIVITIES DO NOT QUALIFY FOR THIS RP UNLESS THEY SATISFY ALL OF THE PERMIT SPECIFIC AND GENERAL CONDITIONS LISTED BELOW:

- 1. Living Shoreline Group 1: Non-structural activities that provide substrate necessary to support wetland vegetation and/or beach nourishment:
  - a. For the purpose of this RP, the Living Shoreline Group 1 activities are associated with existing tidal marsh improvements and/or new marsh creation, or beach nourishment projects that may include the placement of sand fill, coir logs, coir mats, woven containment bags, and/or native oyster shell.
  - b. This activity authorizes the placement of sandy fill material. The maximum fill area for sandy fill material within waters of the U.S. that can be authorized under this RP is one (1) acre.
  - c. The grain size of the source material used for fill must be quality beach sand that is the same size or larger than that of the native beach material and suitable for the proposed project. Excess silt/clay fraction and grain sizes slightly smaller than the former native sands will perform poorly. In most cases, sand material with no more than 10% passing a #100 sieve will be appropriate. All material will be obtained from either an upland source, a borrow pit, or dredge material approved by the Corps.
  - d. Coir logs, coir mats, woven containment bags and native oyster shell should be of sufficient weight, adequately anchored, or placed in a manner to prevent their being dislodged and carried away by wave action.
  - e. The total amount of vegetated wetlands which may be filled, graded, or excavated, in square feet, may not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects. All impacts to sub-tidal, inter-tidal, and/or existing wetland vegetation may require a wetland vegetation planting plan and must result in no net loss of areal vegetated wetlands.
  - f. If the proposed project results in impacts to existing wetland vegetation, then a written monitoring report may be required at the end of the first full growing season following planting, and after the second year of establishment. The monitoring should be undertaken between June and September of each year and should include at a minimum: the project location, the Corps project number, representative photos of the site, and a brief statement on the success of the project.

- g. As the design of a living shoreline project is site specific, it is suggested that you refer to the Virginia Institute of Marine Sciences Living Shoreline Design Guidelines for Shore Protection in Virginia's Estuarine Environments and other reference documents which can be found at: <a href="http://ccrm.vims.edu/livingshorelines/agencies/index.html">http://ccrm.vims.edu/livingshorelines/agencies/index.html</a>.
- h. The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.
- i. Projects which include placement of sandy fill material may result in creation of suitable habitat for various federally listed threatened or endangered species. If this occurs and the permittee seeks to either add to or replenish the area previously filled, the Corps will consult with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act to ensure work is not likely to adversely affect proposed or listed species or proposed or designated critical habitat. Specific requirements on the type of sand allowed for beach and dune work may be required.

# 2. Living Shoreline Group 2: Sill structures with tidal marsh and/or associated sandy fill material:

- a. For the purpose of this RP, a sill is defined as a low structure constructed near shore and parallel to the shoreline for the purpose of building up an existing beach by trapping and retaining sand in the littoral zone. Because a sill acts like a natural bar, it is most effective when constructed at or near the mean low water line and low enough to allow wave overtopping.
- b. Sills may be constructed of riprap, gabion baskets, or clean broken concrete free of metal and re-bar. Alternative materials may be considered for use during the permit review process. The materials should be of sufficient weight or adequately anchored to prevent their being dislodged and carried about by wave action. Asphalt and materials containing asphalt or other toxic substances shall not be used in the construction of sills.
- c. Sills will be designed with at least one 5 foot window/gap per property and per 100 linear feet of sill unless waived by the District Engineer.
- d. This activity authorizes the placement of sandy fill material landward of the sills provided the fill is for erosion control and/or wetland enhancement (and not solely for recreational activities). The maximum fill area for sandy fill material within waters of the U.S. that can be authorized under this RP is one (1) acre.
- e. The grain size of the source material used for fill must be quality beach sand that is the same size or larger than that of the native beach material and suitable for the proposed project. Excess silt/clay fraction and grain sizes slightly smaller than the former native sands will perform poorly. In most

- cases, sand material with no more than 10% passing a #100 sieve will be appropriate. All material will be obtained from either an upland source, a borrow pit, or dredge material approved by the Corps.
- f. The sill height should be a maximum of +1 foot above mean high water and should be placed a distance no greater than 30 feet from mean low water to the landward side of the sill unless waived by the District Engineer.
- g. The total amount of vegetated wetlands which may be filled, graded, or excavated, in square feet, may not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects. All impacts to sub-tidal, inter-tidal and/or wetland vegetation may require a wetland vegetation planting plan and must result in no net loss of areal vegetated wetlands.
- h. If the proposed project results in impacts to existing wetland vegetation, then a written monitoring report may be required at the end of the first full growing season following planting, and after the second year of establishment. The monitoring should be undertaken between June and September of each year and should include at a minimum: The project location, the Corps project number, representative photos of the site, and a brief statement on the success of the project
- i. As the design of a living shoreline project is site specific, it is suggested that you refer to the Virginia Institute of Marine Sciences Living Shoreline Design Guidelines for Shore Protection in Virginia's Estuarine Environments and other reference documents which can be found at: <a href="http://ccrm.vims.edu/livingshorelines/agencies/index.html">http://ccrm.vims.edu/livingshorelines/agencies/index.html</a>
- j. The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.
- k. Projects which include placement of sandy fill material may result in creation of suitable habitat for various federally listed threatened or endangered species. If this occurs and the permittee seeks to either add to or replenish the area previously filled, the Corps, will consult with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act to ensure work is not likely to adversely affect proposed or listed species or proposed or designated critical habitat. Specific requirements on the type of sand allowed for beach and dune work may be required.

#### 3. Low breakwaters and associated sandy fill material:

a. For the purpose of this RP, a breakwater is defined as a structure constructed parallel to and channelward of a shoreline for the purpose of reducing incoming wave energy.

- b. This RP authorizes low breakwaters constructed close to shore for the purpose of erosion protection by reducing wave height and thereby reducing the erosive power of the waves reaching the shoreline. This permit does not include high breakwaters constructed farther offshore for the purpose of creating quiet water for the protection of a boat harbor.
- c. Under this RP, a breakwater may be a single structure or a series of structures separated by gaps, but may not be connected to the upland or constructed in conjunction with other land attached structures, unless waived by the District Engineer. Such structures will require individual Department of the Army review.
- d. Breakwaters may be constructed of quarry stone, gabion baskets, or clean broken concrete free of metal and re-bar. Alternative materials may be considered for use during the permit review process. However, as breakwaters are barriers to the forces of waves, they should be massive enough to resist the full power of the maximum expected wave energy. Asphalt and materials containing asphalt or other toxic substances shall not be used in the construction of breakwaters. As the design and location of breakwaters is site specific, it is suggested that the Virginia Institute of Marine Science be consulted for advice.
- e. Authorization under this permit includes floating breakwaters (i.e. wave screens) which diffuse energy from the incoming waves as they pass through the device, thereby reducing wave energy reaching a shoreline or harbor. Floating breakwaters should be adequately anchored to prevent their being dislodged by wave action.
- f. This activity authorizes the placement of sandy fill material landward of the breakwaters provided the fill is for erosion control (and not solely for recreational activities). Planting of vegetation to stabilize the nourishment area may be required by the Corps, where appropriate. The maximum fill area for sandy fill material within waters of the U.S. that can be authorized under this RP is one (1) acre.
- g. The grain size of the source material used for fill must be quality beach sand that is the same size or larger than that of the native beach material and suitable for the proposed project. Excess silt/clay fraction and grain sizes slightly smaller than the former native sands will perform poorly. In most cases, sand material with no more than 10% passing a #100 sieve will be appropriate. All material will be obtained from either an upland source, a borrow pit, or dredge material approved by the Corps.
- h. The total amount of vegetated wetlands which may be filled, graded, or excavated, in square feet, may not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in

- minimal adverse effects. All impacts must be offset by new plantings and result in no net loss of areal vegetated wetlands.
- i. If the proposed project results in impacts to existing wetland vegetation, then a written monitoring report may be required at the end of the first full growing season following planting, and after the second year of establishment. The monitoring should be undertaken between June and September of each year and should include at a minimum: The project location, the Corps project number, representative photos of the site, and a brief statement on the success of the project.
- j. The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.
- k. Projects which include placement of sandy fill material may result in creation of suitable habitat for various federally listed threatened or endangered species. If this occurs and the permittee seeks to either add to or replenish the area previously filled, the Corps, will consult with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act to ensure work is not likely to adversely affect proposed or listed species or proposed or designated critical habitat. Specific requirements on the type of sand allowed for beach and dune work may be required.

# 4. Bulkheads, riprap, and associated backfill and/or excavation, including bulkhead repair and/or replacement:

- a. This RP authorizes the construction of bulkheads, riprap, and associated backfill and/or excavation, if such work is necessary to address and remediate an existing erosion problem.
- b. The total amount of vegetated wetlands which may be filled, in square feet, may not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects.
- c. The structure and backfill must be placed as closely to the shoreline or existing structure as practicable. No material may be placed in excess of the minimum necessary for erosion protection.
- d. Only clean, non-metallic, non-organic, non-floatable fill obtained from an approved source may be used as backfill material.
- e. Any temporary fills must be removed in their entirety and the affected areas returned to their pre-existing elevation.

f. This RP also covers the repair, rehabilitation, or replacement of any previously authorized, currently serviceable bulkhead, or of any currently serviceable bulkhead authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Currently serviceable is defined as, "useable as is or with some maintenance, but not so degraded as to essentially require reconstruction." Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This RP also authorizes the replacement of a non-serviceable bulkhead up to two feet channelward of the existing deteriorating bulkhead. This authorization includes no limitation on length, nor does it exclude bulkheads which may result in the filling of wetland vegetation as long as there is an apparent existing erosion problem. As above, the total amount of vegetated wetlands which may be filled, in square feet, must not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects. This total does not include wetlands that have formed landward due to the failure of the existing bulkhead because that portion of the work is considered maintenance and complies with the Corps Nationwide Permit Number 3. The Corps Nationwide Permits and Conditions can be found on our website at http://www.nao.usace.army.mil/Missions/Regulatory/Nationwide-Permit-Conditions/. The filling of wetlands behind free-standing bulkheads that have never been backfilled is prohibited as part of this permit, and may require an Individual Department of the Army Permit.

#### 5. Groins, jetties, spurs and/or baffles and associated sandy fill material:

- a. For this regional permit, groins are defined as structures constructed perpendicular (or nearly so) to a shoreline and extending seaward from the shoreline for the purpose of accreting sand. Groins may merely stop further erosion of a shoreline or they may actually build a sand beach by trapping sand moving in the near shore zone. A jetty is a structure constructed perpendicular to the shoreline with the primary purpose of stabilizing and/or protecting an inlet or harbor. Spurs and baffles are defined as short (less than 20 feet) structures constructed perpendicular to groins or jetties for the sole purpose of dampening diffracted wave energy. Groins and jetties may be constructed of quarry stone, gabion baskets, or clean broken concrete free of metal and re-bar. As the design and location of groins and jetties are site specific, it is suggested that the Virginia Institute of Marine Science be consulted for advice.
- b. This activity may authorize the placement of sandy fill material landward of the groins provided the fill is for erosion control (and not solely for recreational activities). Planting of vegetation to stabilize the fill area may be

- required by the Corps, where appropriate. The maximum fill area for sandy fill material within waters of the U.S. that can be authorized under this RP is one (1) acre.
- c. The grain size of the source material used for fill must be quality beach sand that is the same size or larger than that of the native beach material and suitable for the proposed project. Excess silt/clay fraction and grain sizes slightly smaller than the former native sands will perform poorly. In most cases, sand material with no more than 10% passing a #100 sieve will be appropriate. All material will be obtained from either an upland source, a borrow pit, or dredge material approved by the Corps.
- d. The total amount of vegetated wetlands which may be filled, graded, or excavated, in square feet, may not exceed the length of the activity along the shoreline in linear feet unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects.
- e. If the proposed project results in impacts to existing wetland vegetation, then a written monitoring report may be required at the end of the first full growing season following planting, and after the second year of establishment. The monitoring should be undertaken between June and September of each year and should include at a minimum: The project location, the Corps project number, representative photos of the site, and a brief statement on the success of the project.
- f. The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.
- g. Projects which include placement of sandy fill material may result in creation of suitable habitat for various federally listed threatened or endangered species. If this occurs and the permittee seeks to either add to or replenish the area previously filled, the Corps, will consult with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act to ensure work is not likely to adversely affect proposed or listed species or proposed or designated critical habitat. Specific requirements on the type of sand allowed for beach and dune work may be required.

#### 6. Aquaculture or mariculture activities:

a. This authorization is limited to the bottom and suspended culturing and harvesting of bivalve mollusks in the intertidal and subaqueous areas of navigable waters. Activities covered include: deployment and maintenance of buoys, rafts, trays, oyster castles and other equipment associated with the activity, and work including temporary wet storage, and harvesting.

18-RP-19

- b. No aquaculture activity shall occur within beds of submerged aquatic vegetation or saltmarsh, nor shall such vegetation be damaged or removed unless the District Engineer waives this criterion by making a written determination concluding that the project will result in minimal adverse effects. Should an area become colonized by submerged aquatic vegetation or saltmarsh after an authorized aquaculture activity is installed, the activity shall be allowed to remain. However, no expansion into newly colonized areas is authorized by this regional permit. Information on the location of submerged aquatic vegetation can be found at: <a href="http://web.vims.edu/bio/sav/maps">http://web.vims.edu/bio/sav/maps</a>.
- c. An aquaculture activity will not meet the terms for this RP if it will have more than minimal adverse effects on avian resources such as, but not limited to: shore birds, wading birds, or members of the waterfowl group. This includes nesting, feeding or resting activities by migratory birds identified at 50 CFR 10.13.
- d. An aquaculture activity will not qualify for this RP if it will have more than minimal adverse effects on existing or naturally occurring beds or population of shellfish, marine worms or other invertebrates that could be used by man, other mammals, birds, reptiles, or predatory fish. Feeding and harvesting plans should be included in the PCN to evaluate impacts.
- e. No aquaculture activity or vehicular access to the activity shall occur in such a way as to negatively impact coastal or wetland vegetation.
- f. As-built drawings must be submitted with the certificate of compliance for all aquaculture projects.
- g. The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.

## 7. Boat ramps and accessory structures, including any fill or excavation for installation:

- a. This activity covers all boat ramps (concrete or open-pile timber), whether private, public, commercial or government-owned. This RP also authorizes accessory structures including catwalks, pilings and small piers whose sole purpose is to make it easier to get boats into or out of the water. Permanent or semi-permanent mooring facilities are not covered.
- b. This permit authorizes excavation and/or filling within the limits of the boat ramp only (e.g. for bedding). Dredging or filling for water access to the ramp is not covered under this regional permit and will require separate Department of the Army authorization. Authorization of the boat ramp does not imply that a future dredging proposal to provide access to the structure would be approved.

- All boat ramps and accessory structures shall be located so as to eliminate or minimize impacts to special aquatic sites, including submerged aquatic vegetation (SAV), shellfish beds, oyster reefs and vegetated wetlands.
- d. The pouring of concrete for the construction of boat ramps must be accomplished within a cofferdam unless the activity can be performed completely in the dry, such as during lake drawdown periods. The introduction of uncured concrete into surface waters is prohibited.
- The District Engineer will require an Individual Department of the Army permit for any project which he/she determines to have greater than minimal individual or cumulative impacts.

#### VI. **GENERAL CONDITIONS**:

#### 1. Navigation:

- a. No activity may cause more than a minimal adverse effect on navigation.
- b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S. The U.S. Coast Guard may be contacted at the following address: Commander (oan), Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704 or by telephone: (757) 398-6230.
- c. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his/her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- 2. Aquatic Life Movements: No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

- 3. <u>Spawning Areas</u>: Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
- 4. <u>Migratory Bird Breeding Areas</u>: Activities in waters of the U.S. that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
- 5. <u>Shellfish Beds</u>: No activity may occur in areas of concentrated shellfish populations.
- 6. <u>Submerged Aquatic Vegetation (SAV) Beds</u>: Activities in SAV beds must be avoided and minimized to the maximum extent practicable. Avoidance and minimization measures, such as relocating a structure and/or the implementation of a time-of-year restriction for work in waters, may be required to reduce impacts to the SAV habitat. Information regarding SAV may be found at the Virginia Institute of Marine Science's website at: http://web.vims.edu/bio/sav/.
- 7. <u>Suitable Material</u>: No activity may use unsuitable material (e.g. trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
- 8. <u>Water Supply Intakes</u>: No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public waters supply intake structures or adjacent bank stabilization.
- Adverse Effects from Impoundments: If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
- 10. Management of Water Flows: To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound waters or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
- 11. <u>Fills Within 100-Year Floodplains</u>: The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
- 12. <u>Equipment</u>: Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

- 13. <u>Soil Erosion and Sediment Controls</u>: Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the U.S. during periods of low-flow or no-flow, or during low tides.
- 14. <a href="Invasive Species">Invasive Species</a>: Plant species listed by the most current version of Virginia Department of Conservation and Recreation's (DCR) Invasive Alien Plan List shall not be used for re-vegetation for activities authorized by these regional permits. The list of invasive plants in Virginia may be found at:

  <a href="http://www.dcr.virginia.gov/natural-heritage/invsppdflist">http://www.dcr.virginia.gov/natural-heritage/invsppdflist</a>. The DCR recommends the use of regional native species for re-vegetation as identified in the DCR Native Plants for Conservation, Restoration and Landscaping brochures:

  <a href="http://www.dcr.virginia.gov/natural-heritage/nativeplants#brochure">http://www.dcr.virginia.gov/natural-heritage/native-plants-finder</a>.

  <a href="http://www.dcr.virginia.gov/natural-heritage/native-plants-finder">http://www.dcr.virginia.gov/natural-heritage/native-plants-finder</a>.
- 15. Removal of Temporary Fills and Impacts: The soils of any temporarily impacted areas located in wetlands that are cleared, grubbed, and/or filled, must be restored once these areas are no longer needed for their authorized purpose, no later than completion of project construction, and not to exceed twelve (12) months after commencing the temporary impacts. To restore, temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations, the soil surface loosened by ripping or chisel plowing to a depth of 8-12", and then seeded using native wetland species. See *General Condition 14: Invasive Species* for more information on vegetation recommendations.

Fill or dredged material into waters of the U.S. that are not removed within the 12 month period will be considered a permanent impact, unless otherwise determined by the Corps. This additional impact to waters of the U.S. may result in the Corps initiating a permit non-compliance action which may include, but not limited to, a restoration order, after-the-fact permitting, and/or compensatory mitigation.

- 16. <u>Proper Maintenance</u>: Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable RP conditions, as well as any activity-specific conditions added by the District Engineer to an RP authorization.
- 17. <u>Single and Complete Project</u>: The activity must be a single and complete project. The same RP cannot be used more than once for the same single and complete project. For purposes of this RP, a single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility. A project is considered to have

- independent utility if it would be constructed absent the construction of other projects in the project area.
- 18. Wild and Scenic Rivers: Currently, there are no designated Wild and Scenic Rivers in the Commonwealth of Virginia. No RP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river has determined, in writing, that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).
- 19. <u>Tribal Rights</u>: No RP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

#### 20. Endangered Species:

- a. No activity is authorized under this RP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under this RP which "may affect" a listed species or critical habitat, unless ESA Section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the RP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the RP activity and are later in time, but still reasonably certain to occur.
- b. Federal permittees should follow their own procedures for complying with the requirements of the ESA. The Federal permittee must provide the District Engineer with the appropriate documentation to demonstrate compliance with those requirements. The District Engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.
- c. Non-federal permittees shall submit a pre-construction notification to the District Engineer if any proposed or listed species or proposed or designated critical habitat may be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. Information on the location proposed/listed species and proposed/designated critical habitat

can be obtained directly from the U.S. Fish and Wildlife (USFWS) online project review process at:

https://www.fws.gov/northeast/virginiafield/endangered/projectreviews.html and from the National Marine Fisheries Service (NMFS) at: http://www.nmfs.noaa.gov/pr/species/.

The District Engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species or designated critical habitat and will notify the non-Federal permittee of the Corps' determination. In cases where the non-Federal permittee identified listed species or designated critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the permittee shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or designated critical habitat, or until Section 7 consultation has been completed.

If the District Engineer determines that the proposed activity may affect a listed species or designated critical habitat, the Corps will initiate consultation with the USFWS. The USFWS developed an online system to allow permittees and agencies to find information about sensitive resources that may occur within the vicinity of a proposed project. This system is named "Information, Planning and Conservation System," (IPaC), and is located at: <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a>.

Additional consultation may also be required with the NMFS for species or critical habitat under their jurisdiction, including sea turtles, marine mammals, Shortnose Sturgeon, and Atlantic Sturgeon. For additional information about their jurisdiction in Virginia, please visit: https://www.greateratlantic.fisheries.noaa.gov/protected/index.html.

- d. As a result of formal or informal consultation with the USFWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the RP.
- e. Authorization of an activity by this RP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or NMFS, the ESA prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

- f. If the non-federal permittee has a valid ESA Section 10(a)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed RP activity, the non-federal permittee should provide a copy of that ESA Section 10(a)(1)(B) permit in the Joint Permit Application. The District Engineer will coordinate with the agency that issued the ESA Section 10(a)(1)(B) permit to determine whether a separate ESA Section 7 consultation is needed.
- 21. Migratory Birds and Bald and Golden Eagle Protection Act: The Bald Eagle (Haliaeetus leucocephalus) is no longer a federally listed threatened or endangered species; therefore, the Endangered Species Act provisions are not applicable to this species. The Bald and Golden Eagle Protection Act (BGEPA) does not require that a federal agency involved in permitting the proposed action conduct coordination. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the BGEPA. The permittee should either obtain a "take" permit or a letter of concurrence from USFWS indicating that a permit is not necessary prior to initiating construction activities. You should contact USFWS concerning this matter at U.S. Fish and Wildlife Service, Virginia Field Office, 6669 Short Lane, Gloucester, VA 23061. Information on active bald eagle nests and concentration areas can be obtained in Step 6 of the U.S. Fish and Wildlife Service's online project review system available at:
  - https://www.fws.gov/northeast/virginiafield/endangered/projectreviewprocess.html.
- 22. Essential Fish Habitat: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297; 11 October 1996), requires all Federal agencies to consult with the NOAA Fisheries Service Habitat Conservation Division (NOAA HCD) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). The EFH Designations within the Northeast Region (Maine to Virginia), dated March 1, 1999, has identified EFH for a number of species and their life stages within Virginia waters. If EFH consultation is required with NOAA HCD, the permittee shall not begin work until the Corps has provided notification that the EFH consultation has concluded.
- 23. Anadromous Fish: Authorizations associated with this RP shall not adversely affect documented spawning habitat or a migratory pathways for anadromous fish. Areas of anadromous fish use are indicated on the Virginia Department of Game and Inland Fisheries (VDGIF) information system at:

  <a href="http://vafwis.org/fwis/">http://vafwis.org/fwis/</a>. If a project is located within an area documented as an anadromous fish use area (confirmed or potential), all in-stream work is prohibited from occurring between February 15 through June 30 of any given year or other time of year restriction (TOYR) specified by the VDGIF and/or the Virginia Marine Resources Commission (VMRC). Should the Norfolk District determine that the work is minimal and no TOYR is needed the District will initiate consultation with NOAA Fisheries Service for their concurrence.

A TOYR is not required for dredging activities in the Elizabeth River upstream of the Mid-Town Tunnel on the main-stem and the West Norfolk Bridge (Route 164, Western Freeway) on the Western Branch of the Elizabeth River.

- 24. <u>Designated Critical Resource Waters and National Estuarine Research</u>
  <u>Reserves</u>: This RP does not authorize the discharge of dredged or fill material into the Chesapeake Bay National Estuarine Research Reserve (Reserve) in Virginia. This Reserve is a multi-site system along a salinity gradient of the York River, which includes Sweet Hall Marsh, Taskinas Creek, Catlett Islands, and Goodwin Islands. Additional information may be found at: <a href="http://www.vims.edu/cbnerr/">http://www.vims.edu/cbnerr/</a>.
- 25. <u>Trout Waters</u>: Designated Trout Waters, as defined by the Virginia State Water Control Board and the Virginia Department of Game and Inland Fisheries (VDGIF), occurring specifically within the mountains of Virginia, are within the following river basins:
  - Potomac-Shenandoah Rivers
  - James River
  - Roanoke River
  - New River
  - Tennessee and Big Sandy Rivers
  - Rappahannock River

The Virginia Department of Game and Inland Fisheries (VDGIF) recommends the following time-of-year restrictions (TOYR) for any in-stream work within waters identified as wild trout waters. The recommended TOYRs for trout species are:

Brook Trout: October 1 through March 31
 Brown Trout: October 1 through March 31
 Rainbow Trout: March 15 through May 15

This requirement applies to all waters of the U.S. within the following counties and cities: Albemarle, Allegheny, Amherst, Augusta, Bath, Bedford, Bland, Botetourt, Bristol, Buchanan, Buena Vista, Carroll, Clarke, Covington, Craig, Dickenson, Floyd, Franklin, Frederick, Giles, Grayson, Greene, Henry, Highland, Lee, Loudoun, Madison, Montgomery, Nelson, Page, Patrick, Pulaski, Rappahannock, Roanoke City, Roanoke Co., Rockbridge, Rockingham, Russell, Scott, Shenandoah, Smyth, Staunton, Tazewell, Warren, Washington, Waynesboro, Wise, and Wythe.

The Corps will coordinate the permit request with the Virginia Department of Environmental Quality (DEQ) and/or the VDGIF. Comments from DEQ and VDGIF will be fully considered before the Corps makes a final decision on the project. Additional information regarding trout waters can be found at: https://www.dqif.virginia.gov/.

#### 26. <u>Historic Properties</u>:

- a. In cases where the activity may affect properties listed, or eligible for listing on the National Register of Historic Places, the activity is not authorized until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
- b. Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the Corps with the appropriate documentation to demonstrate compliance with those requirements. The Corps will review the documentation and determine whether it is sufficient to address Section 106 compliance for the RP activity, or whether additional Section 106 consultation is necessary.
- c. Non-federal permittees must submit a statement to the Corps regarding the authorized activity's potential to cause effects to any historic properties listed, or determined to be eligible for listing on the National Register of Historic Places, including previously unidentified properties. The statement must say which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location or potential for the presence of historic resources can be sought from the Virginia Department of Historic Resources (VDHR) at: <a href="http://www.dhr.virginia.gov/">http://www.dhr.virginia.gov/</a> or Tribal Historic Preservation Officer (THPO), as appropriate, and the National Register of Historic Places. Where an permittee has identified historic properties which the proposed activity may have the potential to affect, the permittee shall not begin the activity until notified by the Corps that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.
- d. Prospective permittees should be aware that Section 110(k) of the NHPA (16 U.S.C. § 470(h)-2(k)) prevents the Corps from granting a permit or other assistance to an permittee who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effects created or permitted by the permittee. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the permittee, SHPO/ THPO, appropriate Indian tribes if the undertaking occurs on or affect historic properties on tribal lands or affects properties of interest

to those tribes, and other parties known to have legitimate interest in the impacts to the permitted activity on historic properties.

- 27. <u>Discovery of Previously Unknown Remains and Artifacts</u>: If you discover any previously unknown historic, cultural, or archaeological remains and artifacts while accomplishing activities authorized by this permit, you must immediately stop work and notify the Corps of what has been found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The Corps will initiate Federal, Tribal, and State coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
- 28. <u>Mitigation</u>: Mitigation in all its forms (avoiding, minimizing, or compensating for resource losses) may be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site).
- 29. <u>Use of Multiple Regional Permits</u>: This RP may be combined with any Corps general permits (including Nationwide (NWP) or Regional Permits (RP)) for a single and complete project, as long as the acreage loss of waters of the U.S. authorized by the NWPs/RPs does not exceed the acreage limit of the NWP/RP with the highest specified acreage limit.
- 30. <u>Transfer of Regional Permit Verifications</u>: If the permittee sells the property associated with the RP verification, the permittee may transfer the verification to the new owner by submitting a letter to the appropriate Corps District Office to validate the transfer. A copy of the RP verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by the Regional Permit are still in existence at the time the property is transferred, the terms and conditions of this regional permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of the Regional Permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

| (Transferee) |      |      |  |
|--------------|------|------|--|
|              | <br> | <br> |  |
| (Date)       |      |      |  |

31. <u>Compliance Certification</u>: A Certificate of Compliance, enclosed with the Corps' written authorization for the activity, must be completed and a copy retained for your records. The original Certificate of Compliance shall be mailed to, U. S.

Army Corps of Engineers, Regulatory Branch, 803 Front Street, Norfolk, Virginia 23510-1011, or to the Regulatory Field Office listed on the Certificate of Compliance, within 30 days of completion of the authorized activity.

32. Activities Affecting Structures or Works Built by the United States: If the RP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project, the activity that requires section 408 permission is not authorized by the RP until the appropriate Corps District office issues the section 408 permission to alter, occupy, or use the Corps Civil Works project, and the District Engineer issues a written RP verification.

Contact a Norfolk District Regulatory Project Manager to assist in determining if your proposed activity might alter or temporarily or permanently occupy or use a Corps of Engineers Civil Works project.

Locations of Norfolk District Civil Works projects can be found at: <a href="http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17">http://www.nao.usace.army.mil/Portals/31/docs/regulatory/RPSPdocs/RP-17 Corps Project Maps.pdf</a>.

For projects located within the Civil Works boundary of the Baltimore, Huntington, Nashville or Wilmington District, please contact a Norfolk District Project Manager for assistance.

33. <u>Pre-Construction Notification</u>: Prior to commencing the activity, prospective permittees ("permittees") must submit a Pre-construction Notification (PCN) to the District Engineer, unless otherwise specified in the RP, and must receive written notification from the Corps acknowledging that the project is authorized pursuant to this RP.

Notification to the Corps must be in writing (the Joint Permit Application may also be used, as described below) and must include the following information:

- Name, address and telephone number of the prospective permittee;
- Name, address and telephone number of the property owner, if different from the prospective permittee;
- Location of the project (including Tax Parcel ID Number, if available);
- Vicinity map, aerial photograph, and/or drawing accurately showing the
  extent of proposed activity and the extent of waters of the U.S., including
  wetlands. Drawings, plans and/or sketches should contain sufficient detail
  to project an illustrative description of the proposed activity;
- Identify the specific RP or RPs the prospective permittee wants to use to authorize the proposed activity;
- A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expect to result from the RP activity, in acres, linear feet

- or other appropriate unit of measure; a description of any proposed mitigation measures; and any other Corps permit used or intended to be used to authorize any part of the proposed project or any related activity.
- A delineation of special aquatic sites and other waters of the U.S. on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the U.S., but there may be a delay if the Corps does the delineation.
- If compensatory mitigation is required, the prospective permittee must submit a statement describing how any required compensatory mitigation will be provided. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. In accordance with 33 CFR 332.3 (a) the Corps will consider what is environmentally preferable. Factors considered will be likelihood of success, sustainability, location relative to the impact site and significance within the watershed, and the costs of the compensatory mitigation project. The Corps will require the most appropriate and practicable mitigation pursuant to 33 CFR 320.4(r).

A JPA may be obtained by writing to the U.S. Army Corps of Engineers, Norfolk District, Regulatory Branch, 803 Front Street, Norfolk, Virginia 23510-1011; by telephoning the Norfolk District Regulator of the Day at (757) 201-7652 or via the following link to the Norfolk District Regulatory Branch website: <a href="http://www.nao.usace.army.mil/Missions/Regulatory/JPA/">http://www.nao.usace.army.mil/Missions/Regulatory/JPA/</a>.

The Corps must determine if the PCN is complete. If the PCN is determined to be incomplete, the Corps will request the prospective permittee to provide the additional information necessary to make the request complete. The request must specify the information needed to make the PCN complete. As a general rule, the Corps will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the Corps will notify the prospective permittee that the PCN is still incomplete and the review process will not commence until all of the requested information has been received by the Corps. The prospective permittee shall not begin the activity until he or she is notified in writing by the Corps that the activity may proceed under the RP, subject to any additional conditions imposed by the Corps.

If, after reviewing the request, the Corps determines that the proposed activity would have more than minimal individual or cumulative adverse impacts on the aquatic environment or otherwise may be contrary to the public interest, then the Corps will notify the project proponent that the activity is not authorized by the regional permit and will provide instructions for seeking authorization under an Individual Permit. The Corps may revoke this Regional Permit for an individual activity by following the procedures set forth in 33 CFR 325.7.

34. <u>Environmental Justice</u>: Activities authorized under this RP must comply with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations".

35. <u>Inspections</u>: The permittee must provide a copy of this permit and any verification letter to the contractor(s) and made available at the project site to any regulatory representative. The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to assure that the activities being performed under authority of this permit are in accordance with the terms and conditions prescribed herein. The Corps reserves the right to require post-construction engineering drawings and/or surveys of any work authorized under this RP, as deemed necessary on a case-by-case basis.

#### VII. <u>DISTRICT ENGINEER'S DECISION</u>:

- 1. In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the RP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific RP, the District Engineer should issue the RP verification for that activity if it meets the terms and conditions of that RP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual or cumulative adverse effects on the aquatic environment and other aspects of the public interest and require an Individual Permit for the proposed activity.
- 2. When making minimal adverse environmental effects determinations the District Engineer will consider the direct and indirect effects caused by the RP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by the RP and whether those cumulative adverse environmental effects are no more than minimal. The District Engineer will also consider site specific factors, such as the environmental setting in the vicinity of the RP activity, the type of resource that will be affected by the RP activity, the functions provided by the aquatic resources that will be affected by the RP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the RP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the District Engineer. The District Engineer may add case-specific special conditions to the RP authorization to address site-specific environmental concerns.
- 3. If the District Engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the District Engineer will notify the permittee that the activity does not qualify for authorization under the RP and instruct the permittee on the procedures to seek authorization under an Individual Permit or process to modify the proposed activity and/or the mitigation plan to reduce the adverse environmental effects so that they are no more than minimal. In addition, if the District Engineer determines on a case-by-case basis that concerns for the aquatic environment so indicate, the District Engineer may

exercise discretionary authority to override the Regional Permit and require an Individual Permit application and review.

#### VIII. <u>ADDITIONAL INFORMATION</u>:

1. District Engineers have the authority to determine if an activity complies with the terms and conditions of the RP.

#### 2. Limits of This Authorization:

- a. Regional permits do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
- b. Regional permits do not grant any property rights or exclusive privileges.
- c. Regional permits do not authorize any injury to the property or rights of others.
- d. Regional permits do not authorize interference with any existing or proposed Federal project (see General Condition 32).
- e. Regional permits do not authorize the impingement upon Federal Lands.
- f. Regional permits do not grant any Corps or Federal real estate rights. If real estate rights are needed from the Corps, you must contact the appropriate U.S. Army Corps of Engineers District's Real Estate Office.
- 3. <u>Limits of Federal Liability</u>: In issuing this RP, the Federal government does not assume any liability for the following:
  - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes;
  - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest:
  - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this RP;
  - d. Design or construction deficiencies associated with the permitted work;
  - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Permittee's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision: The District Engineer may reevaluate the decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
  - a. The permittee fails to comply with the terms and conditions of this permit.
  - b. The information provided by the permittee in support of your PCN proves to have been false, incomplete, or inaccurate.
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

- 6. <u>Binding Effect</u>: The provisions of the permit authorization shall be binding on any assignee or successor in interest of the original permittee.
- 7. Expiration: Unless further modified, suspended, or revoked, this RP will be in effect until September 5, 2023. Activities which have commenced (i.e. under construction) or are under contract to commence in reliance upon this RP will remain authorized provided the activity is completed within twelve (12) months of the date of the RP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization. Activities completed under the authorization of the RP which was in effect at the time the activity was completed continue to be authorized by that RP.

S SEPT 2018

Date

Patrick V. Kinsman, PE

Colonel, U.S. Army

Commanding



### COMMONWEALTH of VIRGINIA

#### DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 1111 East Main Street, Suite 1400, Richmond, VA 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

www.deq.virginia.gov

David K. Paylor Director

August 22, 2018

(804) 698-4000 1-800-592-5482

Mr. William T. Walker Chief, Regulatory Branch U.S. Army Corps of Engineers 803 Front Street Norfolk, Virginia 23510-1096

RE: Final Section 401 Certification of Regional Permits 18-RP-01, 18-RP-02, 18-RP-11, 18-RP-15, 18-RP-16, 18-RP-17, 18-RP-18, 18-RP-19, 18-RP-22 and Regional Permit General Conditions

Dear Mr. Walker:

Matthew J. Strickler

Secretary of Natural Resources

Provided herein is the Commonwealth of Virginia's decision with regard to Section 401 Water Quality Certification for activities authorized by the U.S. Army Corps of Engineers (the Corps) 2018 Regional Permits RP-02, RP-15, RP-17, RP-18, RP-19, and RP-22 and applicable Regional Permit Conditions, as public noticed by the Corps on February 26, 2018, and for activities authorized by the U.S. Army Corps of Engineers (the Corps) 2018 Regional Permits RP-01 and RP-11 and applicable Regional Permit Conditions, as public noticed by the Corps on May 17, 2018.

Pursuant to 40 CFR 121.2 (a)(2) and (3), the Virginia Department of Environmental Quality (DEQ) on behalf of the State Water Control Board (the Board) has examined (i) the RPs and the Norfolk District Regional Permit Conditions and (ii) other decision documents provided by the Corps to base its certification. Accordingly, the Board finds that there is a reasonable assurance that the activities permitted under the Corps' regional permits, including the Norfolk District Regional Permit Conditions, will be conducted in a manner which will not violate applicable water quality standards, provided permittees comply with all applicable Section 401 conditions (see table attached herein).

Further, pursuant to Virginia Water Protection (VWP) Permit Regulation 9VAC25-210-130 H, the Board is issuing this final §401 Water Quality Certification as meeting the requirements of the VWP regulation after having advertised and accepted public comment for 30 days on our intent to provide this certification. The public comment period began on July 16, 2018 and ended on August 15, 2018. No comments were received.

Mr. William T. Walker August 22, 2018

Please be aware that the final review for consistency with Virginia's Coastal Resources Management Program (VCP) pursuant to the federal Coastal Zone Management Act of 1972, as amended, is not yet complete. Projects in the Tidewater area of Virginia may require additional coordination with the VCP prior to issuance of these regional permits until the federal consistency review is complete. A map depicting those localities within the coastal zone can be found at <a href="http://www.deq.virginia.gov/coastal/coastmap.html">http://www.deq.virginia.gov/coastal/coastmap.html</a>. Questions regarding federal consistency with VCP should be directed to Bettina Sullivan at (804) 698-4204 or <a href="mailto:bettina.sullivan@deq.virginia.gov">bettina.sullivan@deq.virginia.gov</a>.

The Commonwealth reserves its right to require an individual application for a permit or a certificate or otherwise take action on any specific project that could otherwise be covered under any of the Corps' regional, general, or programmatic general permits when it determines on a case-by-case basis that concerns for water quality and the aquatic environment so indicate.

Please do not hesitate to contact Dave Davis (804) 698-4105 or <a href="mailto:dave.davis@deq.virginia.gov">dave.davis@deq.virginia.gov</a> if you have any questions regarding this Section 401 Water Quality Certification.

Sincerely

David K. Paylor

Attachment: Commonwealth of Virginia Section 401 Water Quality Certification Actions Table – Norfolk District 2018 Regional Permits

cc: Ms. Bettina Sullivan, DEQ Office of Environmental Impact Review

Ms. Kim Prisco-Baggett, Norfolk District Army Corps of Engineers

Ms. Scharlene Floyd, Norfolk District Army Corps of Engineers

Mr. William Seib, Baltimore District Regulatory Branch

Mr. Tony Watkinson; Chief, Habitat Division, Virginia Marine Resources Commission Regional VWP Managers

Commonwealth of Virginia Section 401 Water Quality Certification Actions Table – Norfolk District 2018 Regional Permits

| Final §401 Certification (* indicates a change from  | Conditions  |
|--|---|
| existing certification)  |   |
| 18-RP-01   |   |
| Denied   |   |
| Certain Virginia Department of Transportation (VDOT)   |   |
| roadway and railway projects in waters of the United   |   |
| States, within the geographical limits of the  |   |
| Commonwealth of Virginia under the regulatory  |   |
| jurisdiction of the Norfolk District Army Corps of   |   |
| Engineers (Corps)  |   |
| 18-RP-02   |   |
| Unconditional  |   |
| 1 (Maintenance Dredging for Previously Authorized  |   |
| Projects)  |   |
| 18-RP-02   | (1) Dredging shall not be used to create a deep space for                     |
| *Conditional   | water withdrawal.   |
| 2 (New Dredging in Navigable Waters)   | (2) Any compensatory mitigation shall meet the                                |
| 3 (Navigationally-Related Dredging/Excavation of Non-  | requirements in the Code of Virginia, Section 62. 1-44.                       |
| tidal Waters Not Subject to the Exemption Under Section  | 15:23 A through C, except in the absence of same river                        |
| 404(f)(1)(c))  | watershed alternatives in Hydrologic Unit Codes (HUC)                         |
|  | 02040303 and 02040304, single family dwellings or                             |
|  | locality projects may use compensatory mitigation in                          |
|  | HUC 02080102, 02080108, 02080110, or 02080111 in                              |
| 40 DD 44 /   | Virginia.   |
| 18-RP-11 (new)<br>Conditional  | VDOT shall copy DEQ-Office of Wetland and Stream                              |
|  | Protection, Central Office, on all documentation meeting                      |
| Certain Virginia Department of Transportation (VDOT)   | the requirements of Part IV <u>Notification Requirements</u> of the 18-RP-11. |
| roadway and railway projects that qualify for the conditions and thresholds of a Nationwide Permit (NWP) | lie 10-NF-11.   |
| but require a Pre-Construction Notification (PCN) in   |   |
| accordance with General Condition 18(c)  |   |
| 18-RP-15   | Deviations from the original configuration or filled area                     |
| *Conditional   | shall not change the character, scope, or size of the                         |
| Maintenance of existing drainage ditches   | original design or approved alternative design.                               |
| Manitenance of existing dramage ditenes  | onginal design of approved afternative design.                                |

| Final §401 Certification (* indicates a change from existing certification)   | Conditions   |
|---|--|
| 18-RP-17 and RP17 Certificate of Compliance Form *Conditional Installation and/or construction of open-pile piers, mooring structures/devices, certain covered boathouses/boatslips, boatlifts, osprey poles/platforms, accessory pier structures, and devices associated with shellfish gardening, for private use.        | (1) The discharge shall not include structures such as pilings to construct a platform to mount a pump for water withdrawals unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.  (2) The impact(s) shall not exceed 2 acres of wetlands or 1,500 linear feet of stream bed.  (3) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in Virginia.  (4) For water-based energy projects using similar structures, the discharge shall not include water withdrawals, such as the construction of an intake structure, weir, water diversion structure, or other structure transporting non-potable raw surface water. |
| 18-RP-18 *Conditional Installation and/or construction of open-pile piers, mooring structures/devices, fender piles, covered boathouses/boatslips, boatlifts, osprey pilings/platforms, accessory pier structures, and devices associated with shellfish gardening, for private, commercial, community, and government use. | (1) The discharge shall not include structures such as pilings to construct a platform to mount a pump for water withdrawals unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.  (2) The impact(s) shall not exceed 2 acres of wetlands or 1,500 linear feet of stream bed.  (3) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in   |

Virginia.

HUC 02080102, 02080108, 02080110, or 02080111 in

(4) For water-based energy projects using similar structures, the discharge shall not include water withdrawals, such as the construction of an intake structure, weir, water diversion structure, or other structure transporting non-potable raw surface water.

| Final §401 Certification (* indicates a change from existing certification)  | Conditions  |
|--|---|
| 18-RP-19 Unconditional 1 (Living Shoreline Group 1: Non-structural activities that provide substrate necessary to support wetland vegetation and/or beach nourishment) and 2 (Living Shoreline Group 2: Sill structures with tidal marsh and/or beach nourishment)   |   |
| 18-RP-19 Unconditional for activities conducted in tidal waters that are authorized by any applicable, required permits issued by the Virginia Marine Resources Commission  *Conditional for the following activities conducted in non-tidal surface waters of Virginia:  3 (Low breakwaters and associated sandy fill material)  4 (Bulkheads, riprap, and associated backfill and/or excavation, including bulkhead repair and/or replacement)  5 (Groins, jetties, spurs and/or baffles and associated sandy fill material) | <ol> <li>(1) Stabilization activities shall not be placed for the purpose of a stream diversion.</li> <li>(2) Stabilization activities shall not permanently impact more than 1,500 linear feet of any type of non-tidal stream bed.</li> <li>(3) For maintenance of bulkhead structures, the discharge shall not increase the capacity of an impoundment or reduce the quantity of instream flows downstream.</li> <li>(4) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44.</li> <li>15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in</li> </ol> |
| 18-RP-19 *Conditional 6 (Aquaculture or mariculture activities)  | Virginia.  (1) The activity shall comply with the conditions of any Virginia Pollutant Discharge Elimination System (VPDES) permit issued for the facility.  (2) The associated activities shall not include a surface water withdrawal or diversion unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.  (3) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C, except in the absence of same river watershed alternatives in Hydrologic Unit Codes (HUC) 02040303 and 02040304, single family dwellings or locality projects may use compensatory mitigation in HUC 02080102, 02080108, 02080110, or 02080111 in Virginia.   |

| Final §401 Certification (* indicates a change from existing certification) | Conditions   |
|---|--|
| 18-RP-19  | Construction of boat ramps in non-tidal waters that do   |
| Unconditional for activities conducted in tidal waters                      | not meet the following criteria require application to   |
| that are authorized by any applicable, required permits                     | DEQ for consideration of a VWP permit: (a) The   |
| issued by the Virginia Marine Resources Commission                          | discharge into surface waters is 50 cubic yards or less of concrete, rock, crushed stone or gravel into forms, or in |
| *Conditional for the following activities conducted in                      | the form of pre-cast concrete planks or slabs, unless  |
| non-tidal surface waters of Virginia:                                       | waived in writing by the Corps district engineer because   |
| 7 (Boat ramps and accessory structures, including any fill                  | the discharge will result in no more than minimal  |
| or excavation for installation)   | adverse environmental effects; (b) The boat ramp is 20   |
|   | feet or less in width, unless waived in writing by the   |
|   | Corps district engineer because the discharge will result  |
|   | in no more than minimal adverse environmental effects;   |
|   | (c) The base material is crushed stone, gravel or other  |
|   | suitable material; (d) The excavation is limited to the  |
|   | area necessary for site preparation and all excavated  |
|   | material is removed to an area that has no surface   |
|   | waters; and, (e) No material is placed in special aquatic  |
|   | sites, including wetlands.   |

| Final §401              | Certification (* | indicates a c | hange from |
|-------------------------|------------------|---------------|------------|
| existing certification) |                  |               |            |

#### 18-RP-22

- \*Conditional
- 1 (Construction of piers, boat docks, jetties, breakwaters structures, dolphins, boat ramps and boathouses using materials commonly acceptable for their construction such as unsinkable flotation materials, pressure treated lumber, pilings, and concrete)
- 2 (Construction and backfilling of bulkheads and placement of riprap or appropriate bioengineering technique along eroding shorelines for shoreline stabilization and erosion control)

#### **Conditions**

- (1) Stabilization activities shall not be placed for the purpose of a stream diversion or impounding flow in an intermittent or perennial water body.
- (2) Activities shall not permanently impact more than 1,500 linear feet of any type of non-tidal stream bed or more than 1/10 of an acre non-tidal wetlands.
- (3) Construction of boat ramps that do not meet the following criteria require application to DEQ for consideration of a VWP permit: (a) The discharge into surface waters is 50 cubic yards or less of concrete, rock, crushed stone or gravel into forms, or in the form of precast concrete planks or slabs, unless waived in writing by the Corps district engineer because the discharge will result in no more than minimal adverse environmental effects; (b) The boat ramp is 20 feet or less in width, unless waived in writing by the Corps district engineer because the discharge will result in no more than minimal adverse environmental effects; (c) The base material is crushed stone, gravel or other suitable material; (d) The excavation is limited to the area necessary for site preparation and all excavated material is removed to an area that has no surface waters; and,
- (e) No material is placed in special aquatic sites, including wetlands.
- (4) Deviations from the original configuration or filled area shall not change the character, scope, or size of the original design or approved alternative design.
- (5) The discharge shall not include water withdrawals, such as the construction of an intake structure, weir, water diversion structure, or other structure transporting non-potable raw surface water.
- (6) The discharge shall not include structures such as pilings to construct a platform to mount a pump for water withdrawals unless otherwise excluded from surface water withdrawal permitting per 9VAC-25-210-310.
- (7) Any compensatory mitigation shall meet the requirements in the Code of Virginia, Section 62. 1-44. 15:23 A through C.

| Final §401 Certification (* indicates a change from existing certification)                                    | Conditions  |
|--|---|
| 18-RP-22   | (1) The dredging shall not be used to create a deep space                                 |
| *Conditional   | for water withdrawal.   |
| 3 (Excavation of boat slips and channels (channelward of   | (2) The discharge shall not increase the capacity of an                                   |
| the normal high pool elevation) for recreational boating,  | impoundment or reduce the quantity of instream flows                                      |
| where excavated material is placed in high ground)   | downstream.   |
|  | (3) Any compensatory mitigation shall meet the  |
|  | requirements in the Code of Virginia, Section 62. 1-44.                                   |
|  | 15:23 A through C.  |
| 18-RP-22   | (1) The activities shall not be associated with a surface                                 |
| *Conditional   | water withdrawal or the transport of non-potable raw                                      |
| 4 (Installation of submerged and aerial power lines and  | surface water, except for the purpose of hydrostatic                                      |
| utility lines where U. S. Coast Guard requirements for aerial lines are met and pre-project elevation contours | testing and when the associated discharges are authorized by a VPDES permit, if required. |
| are restored)  | (2) Activities shall not permanently impact more than                                     |
| are restored)  | 1,500 linear feet of any type of non-tidal stream bed or                                  |
|  | more than 2 acres of non-tidal wetlands.  |
|  | (3) Any compensatory mitigation shall meet the  |
|  | requirements in the Code of Virginia, Section 62. 1-                                      |
|  | 44.15:23 A through C.   |
|  | (4) Temporary diversions of surface water associated                                      |
|  | with "pump-arounds" during the construction of utility                                    |
|  | crossings are specifically allowed.   |
| 18-RP-22   | (1) Deviations from the original configuration or filled                                  |
| *Conditional   | area shall not change the character, scope, or size of the                                |
| 5 (Maintenance of existing water intake and outfall  | original design or approved alternative design.   |
| structures provided all State and Federal required   | (2) The structure or maintenance shall not be associated                                  |
| authorization have been obtained)  | with intake structures unless otherwise excluded from                                     |
|  | surface water withdrawal permitting per 9VAC-25-210-310.                                  |
|  | (3) The discharge shall not increase the capacity of an                                   |
|  | impoundment or reduce the quantity of instream flows                                      |
|  | downstream.   |
|  | (4) The Corps of Engineers shall provide DEQ an annual                                    |
|  | report of projects authorized by this Regional Permit                                     |
|  | that includes detailed information on physical changes to                                 |
|  | water withdrawal structures, such as the maintenance of                                   |
|  | an intake, dam, weir, or water diversion structure that                                   |
|  | are deviations from the original configuration, or are a                                  |
|  | change in the character, scope, or size of the original                                   |
|  | design, or where those deviations would otherwise   |
|  | reduce instream flows.  |
|  | (5) Any compensatory mitigation shall meet the  |
|  | requirements in the Code of Virginia, Section 62. 1-44.                                   |
|  | 15:23 A through C.  |

# APPENDIX A-4 COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTENCY DETERMINATION

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS



### COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTENCY DETERMINATION

#### CONTINUING AUTHORITIES PROGRAM, SECTION 14, EMERGENCY STREAMBANK AND SHORELINE PROTECTION JAMES RIVER SHORELINE, NEWPORT NEWS, VIRGINIA

**CONSISTENCY REVIEW:** Information to support this Federal Consistency Determination (including maps and additional supporting information) can be found in the Continuing Authorities Program, Section 214, Emergency Streambank and Shoreline Protection James River Shoreline, Newport News, Virginia draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) which will be available to the public in October 2020.

**PROJECT DESCRIPTION:** The U.S. Army Corps of Engineers is the lead federal agency for this feasibility study and the non-Federal sponsor is the City of Newport News.

The James River Shoreline, Newport News, Virginia feasibility study is authorized by Section 14 of the Flood Control Act of 1946, as amended (P.L.79-526), Emergency Streambank and Shore Protection. The purpose of the Section 14 program is to construct emergency streambank and shore protection to prevent natural erosion processes from damaging highways, bridge approaches, public works, churches, public and private non-profit hospitals, schools, water and sewer lines, and other public or non-profit facilities that offer public services to all, and known historic properties eligible or listed on the National Register of Historic Places. If an eligible facility is in imminent danger of failure, and after a request for a project has been received from a potential non-federal sponsor stating its desire to participate in a solution, the Corps will conduct a feasibility study to analyze the problem, develop a solution, and determine the feasibility of a solution.

The City of Newport News is located on the Lower Peninsula in eastern Virginia, adjacent to the Chesapeake Bay, and approximately 65 miles southeast of Richmond. The study area is located entirely within the City along the north bank of the James River, west of the James River Bridge (US-17/US-258). The project site is bounded on the south by the Government Ditch, to the north by North Avenue, and extends eastward to River Road. A vicinity map of the proposed project is identified in Figure 1-1.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding bluff is an imminent threat to existing public facilities, causing continual loss of land, threatening existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope.

The purpose of the proposed project, which is identified as the Recommended Plan in the draft IFR/EA, is to conduct a shoreline stabilization project to create safer bank conditions to reduce

the public safety hazard resulting from the 25 foot bluff and to eliminate the current threat to existing public facilities.

The key objectives of the study include an integrated systematic approach to stabilize the eroding James River shoreline adjacent to River Road to reducing the risk of future erosion. Other objectives include preventing future erosion damages to public utilities, and to prevent future damage to the Government Ditch.



Figure 1-1. Vicinity map for the James River Shoreline Stabilization Project.

The proposed project consists of a longitudinal rock sill running the approximately 600-foot length of the project area and graded on a 1H:3V slope, 2,900 tons of VDOT class III riprap and 800 tons of VDOT number 1 stone, 4,300 cubic yards of fill, 1,600 square yards of geotextile filter

fabric, 35,000 square feet of seeding, and 700 cubic yards of debris removal. It is anticipated that the proposed project would be constructed in a manner to avoid the shoreline and existing residential pier on private property. The exact siting of the sill and advanced designs would be further developed during the Design/Implementation (DI) phase; however, it is anticipated that impacts would occur channelward of mean low water. Please refer to Attachment 1 for the 10% design level drawings.

The slope is anticipated to be seeded following placement of the slope stabilization blankets. Although the planting plan would be finalized in the DI Phase, the following type of grasses would likely be considered. Warm-season grasses generally require less maintenance and have a shorter growing season. Warm-season grasses such as Bermuda grass and zoysia grass are well adapted to the environmental conditions found in the Eastern Virginia/Southern Piedmont region and are likely to be considered good candidate grass types for vegetating the slope. Other warm-season grasses that may also warrant consideration include St. Augustine grass, however, vegetated plantings as opposed to seeding, would likely be required and may not be as cost effective. Fescue can also be established from seed and is suitable for low management conditions. To ensure the long-term stability of the slope and stone sill, it is not anticipated that trees would be re-planted on the adjacent upland following construction. Any additional native vegetation planted in associated with this project would not impede the existing scenic view of the James River.

**PROPERTY CLASSIFICATION:** The project site is characterized as a high bank shorelines where upland elevation is greater than 10 feet above mean low water. The majority of the project site is owned by the City of Newport News, however, there are several privately owned parcels within the project limits.

IMPACTS TO RESOURCES/USES OF THE COASTAL ZONE: See Summaries below.

**DETERMINATION:** Based upon evaluation of impacts analyzed in the Draft IFR/EA and in accordance with Section 307 of the Coastal Zone Management Act (CZMA) and the CZMA Federal Consistency Regulation – 15 C.F.R. Part 930, the Norfolk District, U.S. Army Corps of Engineers determined that the proposed project would be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the Commonwealth of Virginia's Coastal Zone Management Program.

#### **ENFORCEABLE POLICIES**

The Virginia Coastal Zone Management Program (CZMP) contains the below enforceable policies (A-I).

#### A. Fisheries Management

The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Virginia Marine Resources Commission (VMRC) (Virginia Code §28.2-200 through §28.2-713) and the Virginia Department of Game and Inland Fisheries (VDGIF) (Virginia Code §29.1-100 through §29.1-570).

Consistency Analysis

Implementation of the proposed project would result in temporary, negligible to minor adverse impacts to the nearshore estuarine environment including fishery resources. The proposed sill would be constructed primarily in the intertidal area with a portion of the stone sill constructed channelward of mean low water.

Fishes would be expected to avoid the area during in-water construction. Since there are no piledriving activities associated with Alternative 1, acoustic underwater impacts to fish resources would be negligible and would be associated with vessel traffic such as work barges that may be necessary for construction. Vessel traffic is common to the James River and contributes to the existing ambient underwater noise environment.

Construction activities would temporarily increase turbidity immediately adjacent to the project site. However, Best Management Practices (BMPs) such as the use of a turbidity curtain if feasible, would be implemented. Additionally, the nearshore benthic environment is largely comprised of sandy material which would be expected to settle quickly from the water column following disturbance.

Public shellfish grounds managed by the Virginia Marine Resources Commission (VMRC) are located less than 0.75 miles from the project site and include an open harvest area for oysters in the Lower James River. Private leased oyster grounds are located in close proximity to the project site, and are located approximately 0.1 mile offshore. However, the proposed project would have no impacts to public shellfish grounds or private oyster grounds.

The existing Eastern oyster and Atlantic ribbed mussel resources attached to the existing debris along the intertidal shoreline would be removed along with debris removal during construction. However, their presence in the area indicates that settlement and attachment of the Eastern oyster to the stone sill is likely to occur once construction is complete.

The proposed project would be fully consistent with the Fisheries Management enforceable policy.

#### **B.** Subaqueous Lands Management

The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects to marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Virginia Department of Environmental Quality Water Quality Division. The program is administered by the Virginia Marine Resource Commission (Virginia Code §28.2-1200 through §28.2-1213).

#### Consistency Analysis

The construction of the stone sill would occur channelward of mean low water on State-owned submerged land. The extent of construction of the stone sill channelward of mean low water would be determined during the DI Phase. Negligible to minor impacts to nearshore and subtidal habitats would occur during construction. A Joint Permit Application would be submitted for review and a subaqueous permit secured from the Virginia Marine Resources Commission for impacts to State-owned submerged land.

The proposed project would be fully consistent with the Subaqueous Lands Management enforceable policy.

#### C. Wetlands Management

The purpose of the wetlands management program is to preserve tidal wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation. The tidal wetlands program is administered by the VMRC (Virginia Code §28.2-1301 through §28.2-1320). The Virginia Water Protection Permit program administered by the DEQ includes protection of wetlands -- both tidal and non-tidal. This program is authorized by Virginia Code § 62.1-44.15.5 and the Water Quality Certification requirements of §401 of the Clean Water Act of 1972.

#### Consistency Analysis

The proposed project would impact tidal, non-vegetated wetlands. There are no vegetated wetlands present at the project site; therefore, there would be no anticipated impacts to vegetated wetlands. No wetland mitigation would be required for this project.

Implementation of the proposed project would be fully consistent with the Wetlands Management enforceable policy.

#### D. Dunes Management

Dune protection is carried out pursuant to the Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission (Virginia Code §28.2-1400 through §28.2-1420) for the City of Newport News.

#### Consistency Analysis

This project would not impact sand dunes; therefore this enforceable policy is not applicable.

#### **E. Non-point Source Pollution Control**

Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by DEQ (Virginia Code §62.1-44.15:51 *et seq.*).

#### Consistency Analysis

Construction activities would temporarily increase turbidity immediately adjacent to the project site. However, Best Management Practices (BMPs) such as the use of a turbidity curtain if feasible, would be implemented to reduce turbidity impacts. Additionally, the nearshore benthic environment is largely comprised of sandy material which would be expected to settle quickly from the water column following disturbance.

The proposed project would be fully consistent with the Non-point Source Pollution Control enforceable policy.

#### F. Point Source Pollution Control

The point source program is administered by the State Water Control Board pursuant to Virginia Code §62.1-44.15. Point source pollution control is accomplished through the implementation of the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to §402 of the federal Clean Water Act and administered in Virginia as the VPDES permit program. The Water Quality Certification requirements of §401 of the Clean Water Act of 1972 is administered under the Virginia Water Protection Permit program.

#### Consistency Analysis

The proposed project would not generate any point source discharges and a VPDES Individual Permit would not be required; therefore, this enforceable policy is not applicable.

#### G. Shoreline Sanitation

The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code §32.1-164 through §32.1-165).

#### Consistency Analysis

The proposed project involves no septic tanks; therefore, this enforceable policy is not applicable.

#### H. Air Pollution Control

The program implements the Federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code §10.1-1300 through 10.1-1320).

#### Consistency Analysis

There would be temporary, negligible to minor, emissions resulting from the use of diesel-fuel equipment during construction, potentially including vessels and barges and/or land-based construction equipment such as dump trucks and excavators. However, these short-term emissions would be below *de minimis* levels, and a General Conformity analysis would not be required.

The proposed project would be fully consistent with the Air Pollution Control enforceable policy.

#### I. Coastal Lands Management

State-local cooperative program administered by DEQ's Water Division and 84 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act (Virginia Code §§ 62.1-44.15:67 through 62.1-44.15:79) and Chesapeake Bay Preservation Area Designation and Management Regulations (Virginia Administrative Code 9 VAC 25-830-10 *et seq.*)

#### Consistency Analysis

The proposed project would stabilize the existing eroding shoreline within the Resource Protection Area and would further minimize sedimentation into the James River during substantial precipitation events. Land disturbance during construction would be minimized to the extent

practicable. Additionally, construction of the proposed project would be consistent with the requirements of the Virginia Erosion and Sediment Control Handbook and stormwater management criteria consistent with water quality protection provisions of the Virginia Stormwater Management Regulations.

The proposed project would be fully consistent with the Coastal Lands Management enforceable policy.

#### **Advisory Policies for Geographic Area of Particular Concern**

#### a. Coastal Natural Resource Areas

These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources: Wetlands, aquatic spawning, nursery, feeding grounds, coastal primary sand dunes, barrier islands, significant wildlife, habitat areas, public recreation areas, sand and gravel resources, and underwater historic sites.

Construction of the proposed project would result in temporary, negligible to minor water quality impacts and localized disturbance or the nearshore environment. However, these impacts would no longer occur once construction is complete. Upon construction completion, the stabilized shoreline would potentially minimize sedimentation during high precipitation events.

#### b. Coastal Natural Hazard Areas

This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows: Highly erodible areas, coastal high hazard areas, including floodplains.

The proposed shoreline project would result in the stabilization of a highly eroded shoreline along the James River and would improve the existing site conditions and minimize future safety concerns.

#### c. Waterfront Development Areas

These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows: **co**mmercial ports, commercial fishing piers, **and** community waterfront.

The project area is located in a residential neighborhood; therefore, there are no commercial ports, commercial fishing piers, or community waterfronts located in the project area.

#### **Advisory Policies for Shorefront Access Planning and Protection**

#### a. Virginia Public Beaches

Approximately 25 miles of public beaches are located in the cities, counties, and towns of Virginia exclusive of public beaches on state and federal land. These public shoreline areas will be maintained to allow public access to recreational resources.

The proposed project would not impact a public beachfront/recreational area; there is no public access to the existing shoreline.

# b. Virginia Outdoors Plan (VOP)

Planning for coastal access is provided by the DCR in cooperation with other state and local government agencies. The Virginia Outdoors Plan (VOP), which is published by the Department, identifies recreational facilities in the Commonwealth that provide recreational access. The VOP also serves to identify future needs of the Commonwealth in relation to the provision of recreational opportunities and shoreline access. Prior to initiating any project, consideration should be given to the proximity of the project site to recreational resources identified in the VOP.

If site access by water is required for construction, temporary, minor impacts to recreational boating activities in the nearshore environment may occur. Small, recreational vessels would be expected to avoid the nearshore environment during construction. The project would stabilize the existing shoreline and would not permanently adversely impact recreational resources.

#### c. Parks, Natural Areas, and Wildlife Management Areas

Parks, wildlife management areas, and natural areas are provided for the recreational pleasure of the citizens of the Commonwealth and the nation by local, state, and federal agencies. The recreational values of these areas should be protected and maintained.

The proposed project would have no impacts to parks, natural areas, or wildlife management areas.

#### d. Waterfront Recreational Land Acquisitions

It is the policy of the Commonwealth to protect areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest, or unusual features which may be acquired, preserved, and maintained for the citizens of the Commonwealth.

This project does not limit the ability of the Commonwealth of Virginia in any way to acquire, preserve, or maintain waterfront recreational lands.

# e. Waterfront Recreational Facilities

This policy applies to the provision of boat ramps, public landings, and bridges which provide water access to the citizens of the Commonwealth. These facilities shall be designed, constructed, and maintained to provide points of water access when and where practicable.

This project does not involve the design, construction, or maintenance of any boat ramps, public landings, or bridges.

## g. Waterfront Historic Properties

The Commonwealth has a long history of settlement and development, and much of that history has involved both shorelines and near-shore areas. The protection and preservation of historic shorefront properties is primarily the responsibility of the Department of Historic Resources. Buildings, structures, and sites of historical, architectural, and/or archaeological interest are significant resources for the citizens of the Commonwealth. It is the policy of the Commonwealth and the Virginia CZM Program to enhance the protection of buildings, structures, and sites of historical, architectural, and archaeological significance from damage or destruction when practicable.

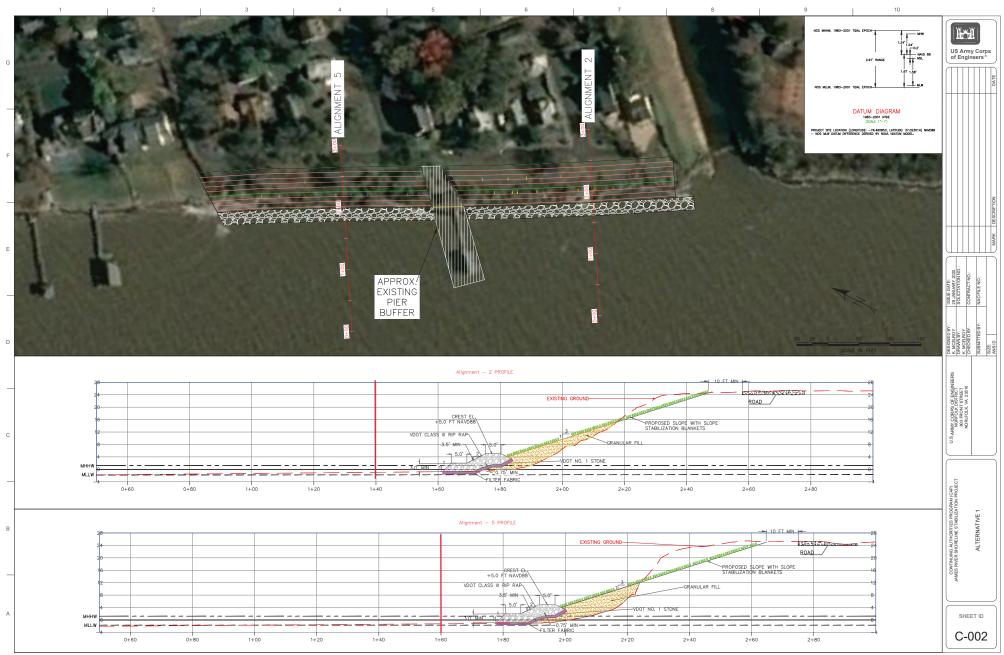
No waterfront historic properties would be affected by this project. Coordination is underway with the State Historic Preservation Officer (SHPO) as required by Section 106 of the National Historic Preservation Act.

# **Determination**

Based upon the following information, data, and analysis, the U.S. Army Corps of Engineers, Norfolk District, finds that the Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection Project, as evaluated in the draft Integrated Feasibility Report/Environmental Assessment is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program.

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Zone Management Program has 60 days from receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under CFR section 930.41 (b). Virginia's concurrence will be presumed if its response is not received by the U.S. Army Corps of Engineers on the 60<sup>th</sup> day from receipt of this determination.

|      | Susan E. Digitally signed by Susan E. Layton                    |
|------|---|
|      | Layton Date: 2020.09.29 12:11:13 -04'00'                        |
| Date | Susan Layton Chief, Planning and Policy Norfolk District, USACE |





Matthew J. Strickler

Street address: 1111 East Main Street, Richmond, Virginia 23219 Mailing address: P.O. Box 1105, Richmond, Virginia 23218 www.deq.virginia.gov

David K. Paylor Director

(804) 698-4000 1-800-592-5482

November 20, 2020

U.S. Army Corps of Engineers Norfolk District Attn: Mr. Richard Harr 803 Front Street Norfolk, Virginia 23510

Secretary of Natural Resources

Via email: richard.m.harr@usace.army.mil

RE: Draft Integrated Feasibility Report/Environmental Assessment and Federal Consistency Determination for the Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia, U.S. Army Corps of Engineers, DEQ 20-137F.

Dear Mr. Harr:

The Commonwealth of Virginia has completed its review of the Draft Integrated Feasibility Report/Environmental Assessment (EA) dated November 5, 2020 (received November 6, 2020) and Federal Consistency Determination (FCD) dated September 29, 2020 (received September 30, 2020) submitted by the U.S. Army Corps of Engineers Norfolk District for the above referenced project. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of National Environmental Policy Act (NEPA) documents and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also responsible for coordinating Virginia's review of FCDs submitted pursuant to the Coastal Zone Management Act (CZMA) and providing the state's response. The following agencies and locality participated in the review of the EA and FCD:

> Department of Environmental Quality Department of Conservation and Recreation Department of Wildlife Resources Marine Resources Commission Department of Health Department of Historic Resources Virginia Institute of Marine Science City of Newport News

In addition, the Hampton Roads Planning District Commission was invited to comment on the proposal.

#### PROJECT DESCRIPTION

The U.S. Army Corps of Engineers (Corps) proposes to stabilize the streambank on a section of the James River in Newport News, Virginia. An approximate 600-foot section of the riverbank along the James River at River Road is severely eroded by the combined effects of natural erosion processes including river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding bluff is an imminent threat to existing public facilities, causing continual loss of land, threatening existing public facilities, threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The majority of the project site is owned by the City of Newport News, however, there are several privately owned parcels within the project limits.

The Corps evaluated four alternatives including a No Action alternative. The Recommended Plan is Alternative 1-Rock Sill with Vegetated Slope. Alternative 1 consists of:

- installing a longitudinal rock sill running the length of the project area at a height of 5 feet (NAVD88);
- regrading the earthen slope berm to 1V:3H;
- removing 700 cubic yards of debris;
- placing 4,300 cubic yards of fill where needed;
- placing 1,600 square yards of geotextile filter fabric under 2,900 tons of VDOT Class III rip rap and 800 tons of VDOT number 1 stone; and
- seeding the vegetated slope with 35,000 square feet of seed to stabilize the earthen slope.

It is anticipated that the proposed project would be constructed in a manner to avoid the shoreline and existing residential pier on private property.

### **ENVIRONMENTAL IMPACTS AND MITIGATION**

1. Water Quality and Wetlands. According to the EA (page 57), turbidity would increase along with total suspended solids in the nearshore environment during construction; however, turbidity impacts would be minimized by the use of turbidity curtains if determined feasible. Following construction completion, the existing water quality conditions would be expected to return to ambient conditions. Additionally, stabilization of the shoreline may slightly improve localized water quality by minimizing erosion and sedimentation impacts. The FCD (Appendix A-4, page 5) asserts that the proposed project would impact tidal, non-vegetated wetlands. There are no vegetated wetlands present at the project site; therefore, there would be no anticipated impacts to vegetated wetlands.

# 1(a) Agency Jurisdiction.

# (i) Department of Environmental Quality

The State Water Control Board promulgates Virginia's water regulations covering a variety of permits to include the <u>Virginia Pollutant Discharge Elimination System Permit</u> regulating point source discharges to surface waters, Virginia Pollution Abatement Permit regulating sewage sludge, storage and land application of biosolids, industrial wastes (sludge and wastewater), municipal wastewater, and animal wastes, the <u>Surface and Groundwater Withdrawal Permit</u>, and the <u>Virginia Water Protection (VWP) Permit</u> regulating impacts to streams, wetlands, and other surface waters. The VWP permit is a state permit which governs wetlands, surface water, and surface water withdrawals and impoundments. It also serves as §401 certification of the federal Clean Water Act §404 permits for dredge and fill activities in waters of the U.S. The VWP Permit Program is under the Office of Wetlands and Stream Protection, within the DEQ Division of Water Permitting. In addition to central office staff that review and issue VWP permits for transportation and water withdrawal projects, the six DEQ regional offices perform permit application reviews and issue permits for the covered activities:

- Clean Water Act, §401;
- Section 404(b)(i) Guidelines Mitigation Memorandum of Agreement (2/90);
- State Water Control Law, Virginia Code section 62.1-44.15:20 et seq.; and
- State Water Control Regulations, 9 VAC 25-210-10.

# (ii) Virginia Marine Resources Commission

The <u>Virginia Marine Resources Commission (VMRC)</u> regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

# 1(b) Agency Findings.

# (i) Department of Environmental Quality

The VWP Permit Program at the DEQ Tidewater Regional Office (TRO) finds that permanent or temporary impacts to surface waters and wetlands may require a permit pursuant to §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seq.* Provided that any and all necessary permits are obtained and complied with, the project will be consistent with DEQ program requirements.

# (ii) Virginia Marine Resources Commission

VMRC indicates that tidal wetlands under its jurisdiction may be impacted by the Recommended Plan.

- **1(c) Requirements.** Permanent and temporary impacts to jurisdictional waters will require permitting pursuant to §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seq.* The permitting process is initiated upon the submission of a Joint Permit Application (JPA) to VMRC, which serves as the clearinghouse for JPA review process. VMRC will distribute the JPA to DEQ, Newport News Wetlands Board, and the Corps for review under applicable state, local and federal laws and regulations.
- **1(d) Recommendations.** In general, DEQ recommends that stream and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:
  - Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable.
  - Preserve the top 12 inches of trench material removed from wetlands for use as wetland seed and root-stock in the excavated area.
  - Erosion and sediment controls should be in place prior to clearing and grading, and maintained in good working order to minimize impacts to state waters. The controls should remain in place until the area is stabilized.
  - Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.
  - Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub, or forested). The applicant should take all appropriate measures to promote revegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.
  - Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats, geotextile fabric in order to prevent entry in state waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
  - Flag or clearly mark all non-impacted surface waters within the project or right-ofway limits that are within 50 feet of any clearing, grading, or filling activities for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.

- Employ measures to prevent spills of fuels or lubricants into state waters.
- **1(e) CZMA Federal Consistency.** The Recommended Plan is consistent to the maximum extent practicable with the wetlands management enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided any required permits and/or authorizations are obtained prior to construction (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).
- **2. State Subaqueous Lands.** The EA does not include a discussion of potential project impacts to state subaqueous lands. However, according to the Corp's FCD (EA, Appendix A-4, page 4), construction of the stone sill would occur channelward of mean low water on state-owned submerged land. A JPA would be submitted for review and a subaqueous permit secured from VMRC for impacts to state-owned submerged land.
- **2(a) Agency Jurisdiction.** The <u>Virginia Marine Resources Commission (VMRC)</u> regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.
- **2(b) Agency Findings.** VMRC finds placing a revetment at the toe of the existing slope (due to the long-term stability) would significantly reduce filling of subaqueous bottom.
- **2(c)** Requirements. VMRC's eventual permit action and identification of specific permit conditions cannot be finalized until receipt of the required JPA and public interest permit review process. Any permit decision reached by the Commission will clarify the permit conditions that are necessary to insure project consistency with impacts to submerged lands.
- **2(d) CZMA Federal Consistency.** The Recommended Plan will be consistent to the maximum extent practicable with the subaqueous lands management enforceable policy of the Virginia CZM Program provided the applicant obtains and complies with a permit issued by VMRC (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).
- **3. Living Shorelines.** According to the EA (page 36), a living shoreline alternative (Alternative 4-Living Shoreline with Vegetated Slope) was evaluated. Alternative 4 consists of regrading a portion of the slope to a 1V:4H, then transition to a 1V:10H for wetland planting, placement of filter fabric, and VDOT number 1 stone topped with VDOT Class III rip rap. Alternative 4 was screened from further consideration since it was found to have significantly higher costs than Alternative 1 (EA, page 37).
- **3(a) Agency Jurisdiction.** During the 2020 Legislative Session, the Virginia General Assembly amended Title 28.2 of the Virginia Code to strengthen the Virginia Marine

Resources Commission's (VMRC) mandate to protect sensitive shorelines and wetlands. The amendment directs VMRC to approve only living shoreline approaches to shoreline stabilization unless those approaches are not suitable. VMRC shall stop granting permits allowing waterfront property owners to install a hardened shoreline unless the best available science shows that a living shoreline is unsuitable. In the event that a property qualifies for the exception, VMRC shall require the applicant to incorporate, to the maximum extent practicable, elements of living shoreline approaches.

- **3(b) Agency Findings.** VMRC notes that its scientific advisors at the Virginia Institute of Marine Science (VIMS) suggest that this shoreline has experienced little or no erosion and questions the treatment of the site as a pending emergency (see VIMS comments attached). VIMS notes that data show long-term stability for the project shoreline, with minimal amounts of erosion and accretion since at least 1937 (Milligan *et al.* 2010). Therefore, further time can be afforded for refinement of the design to either incorporate living shoreline components or reduce direct impacts to subaqueous bottomland. The site is characterized by a high and steep bank with concrete rubble along much of the intertidal and nearshore area at the toe of the slope which creates an intertidal/nearshore area of low habitat value. However, the proposed project design only minimally increases the value of aquatic habitat. Modifying the slope and revetment design could create a living shoreline without compromising shoreline resilience. Unless alternatives analyses show these strategies to be infeasible, VMRC finds that the proposed design does not meet Virginia's new living shoreline requirements.
- **3(c) Recommendations.** In light of the Commonwealth's new living shorelines legislation passed in 2020, VMRC and VIMS recommend consideration of either gapped breakwaters or larger cap rock along the length of the revetment to allow for aquatic faunal ingress/egress to a vegetated wetland constructed at the appropriate tidal elevations landward of the rock structure(s) and at the toe of a redesigned slope. If a living shoreline is shown to be impracticable, then placing the revetment at the toe of the existing bank should be considered to reduce the encroachment upon and filling of subaqueous bottomland. The long-term stability of this shoreline supports this as a likely viable option. The existing concrete rubble may be repurposed into revetment construction. It is further recommended that the project plans included in the JPA provide detailed information on how the project will tie-in to the shoreline along the existing pier and adjacent properties.
- **3(c)** Requirements. VMRC's eventual permit action and the identification of specific permit conditions cannot be finalized until a JPA is received and the public interest permit review process is compete. Any permit decision reached by VMRC will clarify the permit conditions that are necessary to insure consistency with the living shoreline mandate.

For additional information contact VMRC, Jeff Madden at (757) 247-2276 or <a href="madden@mrc.virginia.gov">jeff.madden@mrc.virginia.gov</a> and/or VIMS, Lyle Varnell at (804) 684-7764 or <a href="madden@vims.edu">lyle@vims.edu</a>.

- **4. Erosion and Sediment Control and Stormwater Management.** The EA (page 57) states that turbidity would increase along with total suspended solids in the nearshore environment during construction; however, turbidity impacts would be minimized by the use of turbidity curtains if determined feasible. Additionally, the nearshore benthic environment is largely comprised of sand which would be expected to settle quickly from the water column following disturbance. Following construction completion, the existing water quality conditions would be expected to return to ambient conditions. Additionally, stabilization of the shoreline may slightly improve localized water quality by minimizing erosion and sedimentation impacts.
- **4(a) Agency Jurisdiction.** The DEQ <u>Office of Stormwater Management (OSWM)</u> administers the following laws and regulations governing construction activities:
  - Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.) and Regulations (9 VAC 25-840) (VESCL&R);
  - Virginia Stormwater Management Act (VSMA, § 62.1-44.15:24 et seq.);
  - Virginia Stormwater Management Program (VSMP) Regulation (9 VAC 25-870);
     and
  - 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-880).

In addition, DEQ is responsible for the VSMP General Permit for Stormwater Discharges from Construction Activities related to Municipal Separate Storm Sewer Systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program (9 VAC 25-890-40).

# 4(b) Requirements.

#### (i) Erosion and Sediment Control and Stormwater Management Plans

The Corps and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 2,500 square feet in Chesapeake Bay Preservation Area would be regulated by *VESCL&R*. Accordingly, the Corps must prepare and implement erosion and sediment control (ESC) plans as individual projects are implemented to ensure compliance with state law and regulations. The ESC plans must be submitted to DEQ-TRO for review for compliance.

Land-disturbing activities that result in the total land disturbance of equal to or greater

than 2,500 square feet in a Chesapeake Bay Preservation Area would be regulated by *VSWML&R*. Accordingly, the Corps must prepare and implement a Stormwater Management (SWM) plans as individual projects are implemented to ensure compliance with state law and regulations. The SWM plans must be submitted to DEQ-TRO for review for compliance.

The Corps is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL 62.1-44.15 et seq.]

# (ii) General Permit for Discharges of Stormwater from Construction Activities (VAR10)

The owner or operator of projects involving land-disturbing activities of equal to or greater than one acre is required to apply for registration coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). Construction activities requiring registration also include land disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will collectively disturb equal to or greater than one acre

- The SWPPP must be prepared prior to submission of the registration statement for coverage under the General Permit.
- The SWPPP must address water quality and quantity in accordance with the VSMP Permit Regulations.

General information and registration forms for the General Permit are available on Construction General Permit webpage. [Reference: Virginia Stormwater Management Act 62.1-44.15 *et seq.*; VSMP Permit Regulations 9 VAC 25-880 *et seq.*].

- **4(c) CZMA Federal Consistency.** The Recommended Plan will be consistent to the maximum extent practicable with the nonpoint source pollution control enforceable policies of the Virginia CZM Program, provided the required permits and authorizations are obtained and complied with (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).
- **5. Air Emissions**. According to the EA (pages 47 and 48), criteria pollutant air emissions would be produced from the combustion of fuels in heavy construction equipment. Particulate matter air emissions, such as fugitive dust, would potentially be produced from the ground-disturbing activities. Fugitive dust air emissions would vary depending on the work phase, level of activity, and prevailing weather conditions. Construction methods would incorporate best management practices (BMPs) to minimize fugitive dust emissions in accordance with 9 VAC 5060 *et seq.*, including the use, where possible, the covering of open equipment for conveying materials; and

prompt removal of spilled or tracked dirt or other materials from the paved street and removal of dried sediments resulting from soil erosion.

**5(a) Agency Jurisdiction.** The DEQ Air Division, on behalf of the State Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law (Virginia Code §10.1-1300 *et seq.*). DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate DEQ regional office is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in the region as well as monitoring emissions from these sources for compliance. As a part of this mandate, EIRs of projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

The Air Division regulates emissions of air pollutants from industries and facilities and implements programs designed to ensure that Virginia meets national air quality standards. The most common regulations associated with major State projects are:

Open burning:
Fugitive dust control:
Permits for fuel-burning equipment:
9 VAC 5-130 et seq.
9 VAC 5-50-60 et seq.
9 VAC 5-80-1100 et seq.

**5(b) Agency Findings.** According to the DEQ Air Division, the project site is located in a designated ozone attainment and emission control area for volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>).

**5(c) Recommendation.** The Corps should take all reasonable precautions to limit emissions of VOCs and NO<sub>x</sub>, principally by controlling or limiting the burning of fossil fuels.

# 5(d) Requirements.

# (i) Fugitive Dust

Fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

# (ii) Open Burning

If project activities include the open burning or use of special incineration devices for the disposal of land clearing debris, this activity must meet the requirements of 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100of the *Regulations* for open burning, and it may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. The Corps should contact Newport News fire officials to determine what local requirements, if any, exist.

- **5(e) CZMA Federal Consistency.** The Recommended Plan will be consistent to the maximum extent practicable with the air pollution control enforceable policy of the Virginia CZM Program, provided any required permits are obtained and complied with (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).
- **6. Chesapeake Bay Preservation Areas.** The EA does not discuss potential project impacts to Chesapeake Bay Preservation Areas. The FCD (Appendix A-4, page 6) states that the proposed project would stabilize the existing eroding shoreline within the Resource Protection Area and would further minimize sedimentation into the James River during substantial precipitation events. Land disturbance during construction would be minimized to the extent practicable. Additionally, construction of the proposed project would be consistent with the requirements of the *Virginia Erosion and Sediment Control Handbook* and stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*.
- **6(a) Agency Jurisdiction.** The DEQ Office of Watersheds and Local Government Assistance Programs (OWLGAP) administers the Chesapeake Bay Preservation Act (Virginia Code §62.1-44.15:67 et seq.) and Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 25-830-10 et seq.). Each Tidewater locality must adopt a program based on the Bay Act and Regulations. The Act and Regulations recognize local government responsibility for land use decisions and are designed to establish a framework for compliance without dictating precisely what local programs must look like. Local governments have flexibility to develop water quality preservation programs that reflect unique local characteristics and embody other community goals. Such flexibility also facilitates innovative and creative approaches in achieving program objectives. The regulations address nonpoint source pollution by identifying and protecting certain lands called Chesapeake Bay Preservation Areas. The regulations use a resource-based approach that recognizes differences between various land forms and treats them differently.
- **6(b) Chesapeake Bay Preservation Areas.** DEQ-OWLGAP notes that, in the City of Newport News, the areas protected by the Chesapeake Bay Preservation Act, as locally

implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include:

- tidal wetlands;
- certain non-tidal wetlands;
- tidal shores; and
- a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow.

RMA lands in Newport News include floodplains, highly erodible soils and all lands adjacent to and 100 feet landward of the RPA. Newport News also designated Intensely Developed Areas (IDAs) as redevelopment areas of the city, which incorporates both the RPA and RMA.

- **6(c) Agency Findings.** DEQ-OWLGAP finds that pursuant to 9 VAC 25-830-140(5)(a)(4) of the *Regulations*, shoreline erosion control projects are recognized as permitted modifications of the RPA. In order to maintain the functional value of the buffer area, existing trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.
- **6(c) Requirements.** Land-disturbing activities in RPA and RMA must adhere to the general performance criteria of the *Regulations* (9 VAC 25-830-130), especially with respect to:
  - minimizing land disturbance (including access and staging areas), and
  - retaining indigenous vegetation and minimizing impervious cover.

For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Regulations* (9 VAC 25-840) and satisfy stormwater management criteria consistent with the water quality protection provisions of the *Virginia Stormwater Management Regulations* (9 VAC 25-870).

In addition to the general performance criteria, land disturbance, development, or redevelopment in locally designated RPAs shall be consistent with the development criteria in 9 VAC 25-830-140 of the *Regulations*, especially with respect to 9 VAC 25-830-140(1)(a) and -(6) that requires a water quality impact assessment (WQIA) for any proposed development within the RPA. The purpose of the WQIA is to identify the proposed impacts of land development or disturbance on water quality and lands in the RPA consistent with the goals and objectives of the Act, the *Regulations*, and local programs, and to determine specific measures for mitigation of those impacts.

**6(d) CZMA Federal Consistency.** The Recommended Plan will be consistent to the maximum extent practicable with the coastal lands management enforceable policy of

the Virginia CZM Program, provided all activities are conducted in accordance with the above conditions as administered by DEQ (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

- **7. Floodplain Management.** The EA (page 51) states that the implementation of Alternative 1 will have minor, permanent, and beneficial impacts to existing floodplain areas resulting from shoreline stabilization. While the public facilities, including River Road, electric, gas, communications, and public water and sewer lines, are at/near elevation 25 feet, NAVD88 and not located within the current effective FEMA 1- and 0.2-percent-annual-chance floodplains, without implementation of Alternative 1, they will over time possibly become at risk to damage associated with flooding.
- **7(a) Agency Jurisdiction.** The DCR Division of Dam Safety and Floodplain Management (DSFM) is the lead coordinating agency for the Commonwealth's floodplain management program and the National Flood Insurance Program (Executive Oder 45). The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (shaded Zone X).
- **7(b) Requirements.** All development within a Special Flood Hazard Area (SFHA) or floodplain, as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance. Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR's Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must contact the local floodplain administrator for an official floodplain determination and comply with the community's local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. The Navy is encouraged to reach out to the local floodplain administrator to ensure compliance with the local floodplain ordinance.

- **7(c) Recommendations.** DCR recommends the Corps access the <u>Virginia Flood Risk Information System (VFRIS)</u> to find flood zone information.
- **8. Solid and Hazardous Wastes and Hazardous Materials**. According to the EA (page 52), there is no evidence of environmental contamination in the region of impact (ROI); furthermore, there would be no anticipated releases of petroleum, hazardous, toxic, or radioactive waste with implementation of Alternative 1. The construction contract would include requirements to properly manage, store, and dispose of all fuels and materials generated by or used for the project.

**8(a) Agency Jurisdiction.** On behalf of the Virginia Waste Management Board, the DEQ Division of Land Protection and Revitalization (DEQ-DLPR) is responsible for carrying out the mandates of the Virginia Waste Management Act (Virginia Code §10.1-1400 *et seq.*), as well as meeting Virginia's federal obligations under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation Liability Act (CERCLA), commonly known as Superfund.

# Virginia:

- Virginia Waste Management Act, Virginia Code § 10.1-1400 et seq.
- Virginia Solid Waste Management Regulations, 9 VAC 20-81 (9 VAC 20-81-620 applies to asbestos-containing materials)
- Virginia Hazardous Waste Management Regulations, 9 VAC 20-60 (9 VAC 20-60-261 applies to lead-based paints)
- Virginia Regulations for the Transportation of Hazardous Materials, 9 VAC 20-110.

#### Federal:

- Resource Conservation and Recovery Act, 42 U.S. Code sections 6901 et seq.
- U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 Code of Federal Regulations, Part 107
- Applicable rules contained in Title 40, Code of Federal Regulations.

DEQ-DLPR also administers laws and regulations on behalf of the State Water Control Board governing Petroleum Storage Tanks (Virginia Code §62.1-44.34:8 *et seq.*), including Aboveground Storage Tanks (9 VAC 25-91 *et seq.*) and Underground Storage Tanks (9 VAC 25-580 *et seq.* and 9 VAC 25-580-370 *et seq.*), also known as 'Virginia Tank Regulations', and § 62.1-44.34:14 *et seq.* which covers oil spills.

**8(b) Agency Findings**. DLPR staff conducted a search of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity (500-foot radius) to the project site. The search did not identify any waste sites within the project area which might impact the project.

### 8(c) Requirements.

### (i) Solid and Hazardous Waste Management

Any soil that is suspected of contamination or wastes that are generated during construction must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. All construction waste must be characterized in accordance with the *Virginia Hazardous Waste Management Regulations* prior to management at an appropriate facility. It is the applicant's responsibility to determine if a solid waste meets the criteria of a hazardous waste and be managed appropriately.

# (ii) Petroleum Release

If evidence of a petroleum release is discovered during implementation of this project, the release must be reported to DEQ-TRO in accordance with Virginia Code §62.1-44.34.8 through 19 and 9 VAC 25-580-10 *et seq.* Petroleum-contaminated soils and groundwater must be handled in accordance with DEQ regulatory guidelines.

**8(d) Recommendations.** DEQ encourages the implementation of pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

Questions and additional information regarding waste comments may be directed to DEQ-DLPR, Carlos Martinez at (804) 698-4575 or <a href="mailto:carlos.martinez@deq.virginia.gov">carlos.martinez@deq.virginia.gov</a>.

- **9. Pesticides and Herbicides.** DEQ recommends that the use of herbicides or pesticides for construction or landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used. Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.
- **10. Natural Heritage Resources**. The EA does not specifically address natural heritage resources. However, the EA (page 58) concluded that implementation of Alternative 1 would result in negligible to minor, temporary adverse impacts to wildlife.

### 10(a) Agency Jurisdiction.

(i) The Virginia Department of Conservation and Recreation's (DCR) Division of Natural Heritage (DNH).

DNH's mission is conserving Virginia's biodiversity through inventory, protection and stewardship. The Virginia Natural Area Preserves Act (Virginia Code §10.1-209 through 217), authorizes DCR to maintain a statewide database for conservation planning and project review, protect land for the conservation of biodiversity, and protect and ecologically manage the natural heritage resources of Virginia (the habitats of rare, threatened and endangered species, significant natural communities, geologic sites, and other natural features).

(ii) The Virginia Department of Agriculture and Consumer Services (VDACS).

The Endangered Plant and Insect Species Act of 1979 (Virginia Code Chapter 39 §3.1-1020 through 1030) authorizes VDACS to conserve, protect and manage endangered and threatened species of plants and insects. Under a Memorandum of Agreement established between VDACS and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

# 10(b) Agency Findings.

# (i) Natural Heritage Resources

DCR-DNH searched its Biotics Data System (Biotics) for occurrences of natural heritage resources from the project area. According to the information currently in Biotics, natural heritage resources have not been documented within the project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

# (ii) State-listed Plant and Insect Species

DCR-DNH finds that the proposed activity will not affect any documented state-listed threatened and endangered plant or insect species.

# (iii) State Natural Area Preserves

DCR finds that there are no State Natural Area Preserves under the agency's jurisdiction in the project vicinity.

- **10(c) Recommendation.** Contact DCR-DNH to secure updated information on natural heritage resources if the scope of the project changes and/or six months passes before the project is implemented, since new and updated information is continually added to the Biotics Data System.
- 11. Wildlife Resources and Protected Species. According to the EA (page 55), the proposed action may affect, but is not likely to adversely affect the Atlantic sturgeon, shortnose sturgeon, leatherback sea turtle, Kemp's ridley sea turtle, hawksbill sea turtle, and loggerhead sea turtle which have the potential to occur in the ROI. In-water impacts associated with project construction would occur in the nearshore environment at shallow depths. The EA concludes that impacts to special status species would be less than significant with implementation of Alternative 1.
- **11(a) Agency Jurisdiction.** The <u>Virginia Department of Wildlife Resources (DWR)</u> (formerly the Department of Game and Inland Fisheries), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state- or federally-listed endangered or threatened species, but excluding listed insects (Virginia Code, Title 29.1). DWR is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S. Code §661 *et seq.*) and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DWR determines likely impacts upon fish and wildlife resources and habitat, and

recommends appropriate measures to avoid, reduce or compensate for those impacts. For more information, see the DWR website.

# 11(b) Agency Findings.

# (i) Atlantic Sturgeon

DWR documents the federal-listed Endangered Atlantic Sturgeon from the project area. The James River at this project site has been designated a Threatened and Endangered Species Water due to the presence of this species. The James River at this site also is designated a Confirmed Anadromous Fish Use Area due to the presence of other anadromous fish species.

# (ii) Peregrine Falcon

DWR documents the state-listed Threatened Peregrine Falcon from the project area. They are known to nest on platforms/boxes located on the Route 17 bridge over the James River. However, based on the scope and location of the proposed work, DWR does not anticipate it to result in adverse impacts upon this species.

# 11(c) Recommendations.

# (i) Anadromous Fish Species

The Corps is encouraged to consider the following measures for the protection of fisheries resources.

- Adhere to a time-of-year restriction from February 15 through June 30 and August 1 through November 15 of any year.
- Conduct instream activities during low- or no-flow conditions.
- Use non-erodible cofferdams or turbidity curtains to isolate the construction area.
- Block no more than 50% of the streamflow at any given time (minimal overlap of construction footprint notwithstanding).
- Stockpile excavated material in a manner that prevents reentry into the stream.
- Restore original streambed and streambank contours.
- Revegetate barren areas with native vegetation.
- Implement strict erosion and sediment control measures.
- Design and perform instream work in a manner that minimizes impacts upon natural streamflow and movement of resident aquatic species.
- Use dam and pump-around for as limited a time as possible and return water to the stream free of sediment and excess turbidity.
- Use matting made from natural/organic materials such as coir fiber, jute, and/or burlap to minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting.

• Install concrete (e.g. Tremie method, grout bags, and poured concrete) "in the dry" to allow the concrete to harden and cure prior to contact with open water to minimize harm to the aquatic environment.

# (iii) General Protection of Wildlife Resources

The following general recommendations should be considered to minimize project construction on wildlife resources:

- Adhere to a time-of-year restriction (TOYR) from March 15 through August 15 of any year, to protect resident and migratory songbird nesting from tree removal and ground clearing.
- Adhere to erosion and sediment controls during ground disturbance.
- Use matting made from natural/organic materials such as coir fiber, jute, and/or burlap to minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting.
- Use native species for all plantings and use stabilization techniques that do not result in hardening of the shoreline which serves to impede habitat access by aquatic fauna.
- Employ stabilization techniques used for "living shoreline" development.
- **11(d) Conclusion.** The Recommended Plan is consistent to the maximum extent practicable with the fisheries management enforceable policy of the Virginia CZM Program, provided project activities adhere to erosion and sediment controls (see Federal Consistency under the CZMA (pages 18 and 19) for additional information).
- **12. Historic and Archaeological Resources.** According to the EA (page 49), the construction of the rock sill and associated vegetated slope to stabilize the shoreline would not result in impacts to known cultural resources, including historic building structures or known archeological sites. The Virginia Department of Historic Resources concurred with the Corp's determination that no historic properties would be affected by the proposed undertaking on September 29, 2020.
- **12(a) Agency Jurisdiction.** The <u>Virginia Department of Historic Resources (DHR)</u> conducts reviews of both federal and state projects to determine their effect on historic properties. Under the federal process, DHR is the State Historic Preservation Office, and ensures that federal undertakings-including licenses, permits, or funding-comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Please see DHR's website for more information about applicable state and federal laws and how to submit an application for review: <a href="http://www.dhr.virginia.gov/StateStewardship/Index.htm">http://www.dhr.virginia.gov/StateStewardship/Index.htm</a>.
- **12(b) Agency Findings.** Pursuant to Section 106 of the National Historic Preservation Act, DHR has been in direct consultation with the Corps and its agents regarding this

project and the parties have reached consensus that the Recommended Plan (DHR File No. 2020-0430) will result in *no historic properties affected*.

For additional information, contact DHR, Sam Henderson at (804) 482-6088 or samantha.henderson@dhr.virginia.gov.

- **13. Water Supply.** The EA does not indicate that the Recommended Plan would impact water supply sources.
- **13(a) Agency Jurisdiction.** The <u>Virginia Department of Health (VDH) Office of Drinking Water (ODW)</u> reviews projects for the potential to impact public drinking water sources (groundwater wells, springs and surface water intakes). VDH administers both federal and state laws governing waterworks operation.
- **13(b) Agency Findings.** VDH-ODW finds there are no public groundwater wells within a 1-mile radius of the project site, no surface water intakes located within a 5-mile radius of the project site, and the project is not within the watershed of any public surface water intakes.
- **13(c) Conclusion.** VDH-ODW concludes that there are no apparent impacts to public drinking water sources due to this project.

For additional information, contact VDH-ODW, Arlene Fields Warren at (804) 864-7781 or <a href="mailto:arlene.warren@vdh.virginia.gov">arlene.warren@vdh.virginia.gov</a>.

#### 14. Local Government Review.

- **14(a) Agency Jurisdiction.** In accordance with CFR 930, Subpart A, § 930.6(b) of the *Federal Consistency Regulations*, DEQ, on behalf of the state, is responsible for securing necessary review and comment from other state agencies, the public, regional government agencies, and local government agencies, in determining the Commonwealth's concurrence or objection to a federal consistency certification.
- **14(b) Agency Findings.** The City of Newport News supports the project and has no comments at this me.

For additional information, contact the City of Newport News, Craig Galant at (757) 926-8626 or galantcm@nnva.gov.

#### FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act of 1972, as amended, and federal consistency regulations (15 CFR Part 930, Sub-part C, § 930.30 *et seq.*), all federal agency activities affecting any coastal use or resource will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management (CZM) Program. The Virginia CZM Program

consists of a network of programs administered by several agencies. DEQ coordinates the review of Federal Consistency Determinations with agencies administering the <a href="mailto:enforceable-policies">enforceable-policies</a> and <a href="mailto:advisory-policies">advisory-policies</a> of the Virginia CZM Program. In order to be consistent with the Virginia CZM Program, all the applicable permits and approvals listed under the enforceable policies must be obtained prior to commencing the project.

A Federal Consistency Determination was submitted separately from the EA that includes an analysis of the enforceable policies of the Virginia CZM Program. Pursuant to 15 CFR §930.41(a), DEQ is allowed up to sixty days to conduct a coordinated review and respond to submitted consistency determinations. The sixty-day review period of the Corps' FCD began October 2, 2020 and ends November 24, 2020.

### **PUBLIC PARTICIPATION**

In accordance with Title 15, Code of Federal Regulations (CFR), §930.2, the public was invited to participate in the review of the FCC. Public notice of the Proposed Action was published in OEIR's Program Newsletter and on the DEQ website from October 5, 2020 through October 30, 2020. No public comments were received in response to the notice.

#### FEDERAL CONSISTENCY ANALYSIS

According to information provided in the FCD and EA, the Recommended Plan would have no effect on the following enforceable policies: dunes management, point source pollution control, and shoreline sanitation. The resource agencies responsible for the administration of the enforceable policies of the Virginia CZM Program generally agree with the findings of the FCD. The Corps must ensure that the proposed action is consistent with the aforementioned policies. In addition, in accordance with 15 CFR, Subpart C, §930.39(c), DEQ encourages the Corps to consider project impacts on the advisory policies of the Virginia CZM Program.

# FEDERAL CONSISTENCY CONCURRENCE

Based on our review of the FCD, EA and the comments and recommendations submitted by agencies administering the enforceable policies of the Virginia CZM Program, DEQ concurs that the Recommended Plan is consistent with the Virginia CZM Program, provided the Corps obtains and complies with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. If, prior to construction, the activities should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR 930.46, the Corps must submit supplemental consistency determination to DEQ for review and concurrence. Other state approvals which may apply to this project are not included in this FCD. Therefore, the Corps must ensure that this project is constructed and operated in accordance with all applicable federal, state, and local laws and regulations.

#### REGULATORY AND COORDINATION NEEDS

- **1. Surface Waters and Wetlands.** A VWP Permit from DEQ-TRO may be required for anticipated impacts to jurisdictional waters pursuant to Virginia Code §62.1-44.15:20 *et seq.* VMRC will clarify the permit conditions that are necessary to insure consistency with the state's living shoreline mandate. Tidal wetland impacts may require authorization from VMRC. The submission of a JPA to VMRC for any proposed impacts to jurisdictional waters will initiate reviews by DEQ, VMRC, Corps and the local wetlands board. For additional information and coordination, contact the DEQ-TRO VWP Permit program, Jeff Hannah at (757) 518-2146 or <a href="mailto:jeff.hannah@deq.virginia.gov">jeff.hannah@deq.virginia.gov</a> and/or VMRC, Jeff Madden at (757) 247-2276 or <a href="jeff.madden@mrc.virginia.gov">jeff.madden@mrc.virginia.gov</a>.
- **2. Subaqueous Lands Management.** The Corps must coordinate with VMRC pursuant to Virginia Code §28.2-1200 through 1400, to obtain authorization for anticipated impacts to state subaqueous lands. For additional information and coordination, contact VMRC, Jeff Madden at (757) 247-2276 or <a href="mailto:jeff.madden@mrc.virginia.gov">jeff.madden@mrc.virginia.gov</a>.
- 3. Nonpoint Source Pollution Control.
- **3(a) Erosion and Sediment Control and Stormwater Management**. The Proposed Action must comply with Virginia's *Erosion and Sediment Control Law* (Virginia Code § 62.1-44.15:61) and *Regulations* (9 VAC 25-840-30 *et seq.*) and *Stormwater Management Law* (Virginia Code § 62.1-44.15:31) and *Regulations* (9 VAC 25-870-210 *et seq.*) as administered by DEQ in Virginia. Activities that disturb 2,500 square feet or more in CBPAs would be regulated by *VESCL&R* and *VSWML&R*. Erosion and sediment control and stormwater management requirements should be coordinated with DEQ-TRO, Courtney Smith at (757) 493-1072 or courtney.smith@deq.virginia.gov.
- **3(b) General Permit for Stormwater Discharges from Construction Activities (VAR10).** For land-disturbing activities of equal to or greater than one acre, the Air Force is required to apply for registration coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-880-1 *et seq.*). Specific questions regarding the Stormwater Management Program requirements should be directed to DEQ-TRO, Courtney Smith at (757) 493-1072 or <a href="mailto:courtney.smith@deq.virginia.gov">courtney.smith@deq.virginia.gov</a>.
- **4. Air Quality Regulation**. This project may be subject to air quality regulations administered by DEQ. Guidance on minimizing the emission of volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) during construction may be obtained from DEQ-TRO staff. The following sections of Virginia Administrative Code may apply:
  - fugitive dust and emissions control (9 VAC 5-50-60 et seq.); and
  - open burning restrictions (9 VAC 5-130).

Contact local Newport News fire officials for information on any local requirements pertaining to open burning if applicable. For additional information and coordination,

contact DEQ-TRO, John Brandt at (757) 518-2010 or john.brandt@deq.virginia.gov.

- **5. Chesapeake Bay Preservation Areas.** Project activities impacting RPA and RMA must comply with the *Regulations* (9 VAC 25-830-130 and 9 VAC 25-830-140) as administered by DEQ. In addition, land disturbance in RPAs shall be consistent with the development criteria in 9 VAC 25-830-140, with respect to 9 VAC 25-830-140(1)(a) and -(6) that requires a water quality impact assessment (WQIA) for development within the RPA. To ensure compliance with the *Regulations*, contact DEQ-OWLGAP, Amber Foster at (804) 698-4086 or <a href="mailto:amber.foster@deq.virginia.gov">amber.foster@deq.virginia.gov</a>.
- **6. Floodplain Management**. The Recommended Plan must comply with the Newport News floodplain ordinance. Local floodplain administrator contact information may be found in DCR's Local Floodplain Management Directory.

#### 7. Solid and Hazardous Wastes.

- **7(a) Waste Management.** All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. Contact DEQ-TRO, Sean Priest at (757) 518-2141 or <a href="mailto:sean.priest@deq.virginia.gov">sean.priest@deq.virginia.gov</a>, for information on the location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered.
- **7(b) Petroleum Contamination.** If evidence of a petroleum release is discovered during implementation of the Proposed Action, contact the local fire marshal with any personal safety concerns and report the contamination to DEQ-TRO, Melinda Woodruff at (757) 518-2174 or <a href="melinda.woodruff@deq.virginia.gov">melinda.woodruff@deq.virginia.gov</a> (Virginia Code §62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.*).
- **8. Natural Heritage Resources.** Contact DCR-DNH, Rene Hypes at (804) 371-2708 or rene.hypes@dcr.virginia.gov, to secure updated information on natural heritage resources if the scope of the project changes and/or six months passes before the Proposed Action is implemented, since new and updated information is continually added to the Biotics Data System.
- **9. Wildlife Resources.** Contact DWR, Amy Ewing at (804) 367-2211 or <a href="mailto:amy.ewing@dwr.virginia.gov">amy.ewing@dwr.virginia.gov</a>, on recommendations for the protection of aquatic and wildlife resources associated with the proposal.

Thank you for the opportunity to review and respond to the EA and FCD for the Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4204 or John Fisher at (804) 698-4339 for clarification of these comments.

Sincerely,

Bute Ray

Bettina Rayfield, Program Manager

Environmental Impact Review and Long-Range

**Priorities** 

# **Enclosures**

Ec: Robbie Rhur, DCR

Amy Ewing, DWR Emily Hein, VMRC Roger Kirchen, DHR

Arlene Fields Warren, VDH

VIMS, Lyle Varnell

Craig Galant, Newport News Ben McFarlane, HRPDC Justine Woodward, Corps

# DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

# Environmental Impact Review Coordination Review

**To:** Office of Environmental Impact Review

**From:** Craig Nicol, Regional Director

**Date:** October 23, 2020

**Project:** ACOE Emergency Streambank, DEQ #20-137F

As requested, the DEQ Tidewater Regional Office has reviewed the supplied information and offers the following comments:

# Air Compliance Program:

The following air regulations may be applicable: Virginia Administrative Code 9 VAC 5-50-60 *et seq.* which addresses the abatement of visible emissions and fugitive dust emissions, and Virginia Administrative Code 9 VAC 5-130-10 et *seq.* which addresses open burning. For additional information, contact John Brandt, DEQ-TRO at (757) 518-2010.

# Land Program (Solid and Hazardous Waste):

All construction and demolition waste, including any excess soil, must be characterized in accordance with the Virginia Hazardous Waste Management Regulations and disposed of at an appropriate facility as applicable.

For additional information, contact Sean Priest, DEQ-TRO at (757)518-2141or jonathan.priest@deq.virginia.gov.

#### Stormwater:

A construction general permit (CGP) is required prior to commencement of land disturbing activities greater than 1 acre for the discharge of sediment from construction activities. An approved Erosion and Sediment Control Plan (<1 acre of land disturbance) or an approved Stormwater Management Plan (>1 acre of land disturbance) is required prior to commencement of any land disturbing activities. In addition, DEQ is the review authority for state and federal plan review and approval, within the Tidewater Region, to coincide with permit application processing. For additional information, contact Courtney Smith, DEQ-TRO at (757)493-1072.

### **Virginia Water Protection Permit Program (VWPP):**

Potential adverse impacts to water quality and wetlands resulting from surface runoff due to construction activities must be minimized. This can be achieved by using Best Management Practices (BMPs). Permanent or temporary impacts to surface waters and wetlands may require a permit pursuant to §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seg*. Provided that any and all necessary

permits are obtained and complied with, the project will be consistent with DEQ program requirements. For additional information, contact Jeff Hannah, DEQ-TRO at (757)518-2146.

# Water Permit Program (VPDES):

No comments as there does not appear to be any point source discharges of process water or wastewater associated with this project that would necessitate a VPDES permit.

## **Petroleum Storage Tank Program:**

DEQ records do not indicate any reported petroleum releases along the proposed project footprint. If evidence of a petroleum release is discovered during implementation of this project, it must be reported to DEQ, as authorized by CODE # 62.1-44.34.8 through 19 and 9 VAC 25-580-10 et seq. Contact Ms. Melinda Woodruff at (757) 518-2174. Petroleum-contaminated soils and ground water generated during implementation of this project must be properly characterized and disposed of properly.

Based on the submitted information, it appears the proposed project will result in a [Level of impact] environmental impact.



# Fwd: NEW PROJECT ACOE Emergency Streambank, DEQ #20-137F

1 message

**Henderson, Samantha** <samantha.henderson@dhr.virginia.gov> To: John Fisher <John.Fisher@deq.virginia.gov>

Wed, Nov 4, 2020 at 4:34 PM

Dear Mr. Fisher:

Thank you for requesting comments from the Department of Historic Resources (DHR) on this project. Pursuant to Section 106 of the National Historic Preservation Act, DHR has been in direct consultation with *the US Army Corps of Engineers* and its agents regarding this project and the parties have reached consensus that the *James River Shoreline Stabilization* project (DHR File No. 2020-0430) will result in *no historic properties affected*. DHR has no further comment at this time.

Regards,

Sam Henderson, Archaeologist

Division of Review and Compliance



# ESSLog# 40911\_20-137F\_JamesRiverShoreline\_DWR\_AME20201106

1 message

**Ewing, Amy** <amy.ewing@dwr.virginia.gov>
To: John Fisher <john.fisher@deq.virginia.gov>
Co: Clinton Morgeson <clinton.morgeson@dwr.virginia.gov>

Fri, Nov 6, 2020 at 10:35 AM

#### John,

We have reviewed the subject project that proposes to construct shoreline stabilization along the James River in Newport News. We document federal Endangered Atlantic Sturgeon from the project area. The James River at this project site has been designated a Threatened and Endangered Species Water due to the presence of this species. The James River at this site also is designated a Confirmed Anadromous Fish Use Area due to the presence of other Anadromous Fishes. To best protect these species from harm associated with instream work, we recommend that all such work associated with this shoreline stabilization adhere to a time of year restriction from February 15 through June 30 and August 1 through November 15 of any year.

In addition, we recommend conducting any in-stream activities during low or no-flow conditions, using non-erodible cofferdams or turbidity curtains to isolate the construction area, blocking no more than 50% of the streamflow at any given time (minimal overlap of construction footprint notwithstanding), stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures. We recommend that instream work be designed and performed in a manner that minimizes impacts upon natural streamflow and movement of resident aquatic species. If a dam and pump-around must be used, we recommend it be used for as limited a time as possible and that water returned to the stream be free of sediment and excess turbidity. To minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting, we recommend use of matting made from natural/organic materials such as coir fiber, jute, and/or burlap. To minimize harm to the aquatic environment and its residents resulting from use of the Tremie method to install concrete, installation of grout bags, and traditional pouring of concrete, we recommend that such activities occur only in the dry, allowing all concrete to harden and cure prior to contact with open water.

We also document state Threatened Peregrine Falcons from the project area. They are known to nest on platforms/boxes located on the Rt 17 bridge over the James River. Based on the scope and location of the proposed work, we do not anticipate it to result in adverse impacts upon this species.

We recommend that all tree removal and ground clearing adhere to a time of year restriction (TOYR) protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

We recommend adherence to erosion and sediment controls during ground disturbance. To minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting, we recommend use of matting made from natural/organic materials such as coir fiber, jute, and/or burlap.

We recommend use of native species for all plantings and use of stabilization techniques that do not result in hardening of the shoreline which serves to impede habitat access by aquatic fauna. We prefer stabilization techniques such as those employed during "living shoreline" development.

Assuming strict adherence to erosion and sediment control standards is maintained, we find this project to be consistent with the Fisheries Management Enforceable Policy of the Virginia Coastal Zone Management Program.

Thanks, Amy



Amy Martin Ewing
Environmental Services Biologist Manager, Wildlife Information P 804.367.2211

# **Department of Wildlife Resources**

CONSERVE. CONNECT. PROTECT.

A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228

www.VirginiaWildlife.gov



# RE: NEW PROJECT ACOE Emergency Streambank, DEQ #20-137F

1 message

Galant, Craig M. <galantcm@nnva.gov>

Wed, Oct 21, 2020 at 9:38 AM

To: "John.Fisher@deq.virginia.gov" <John.Fisher@deq.virginia.gov>, "Valerie.Fulcher@deq.virginia.gov" <Valerie.Fulcher@deq.virginia.gov>

Cc: "Bott, Louis J." <bottlj@nnva.gov>, "Stilley, Bryan" <stilleykb@nnva.gov>, "Emery, Marcelina M." <emerymm@nnva.gov>, "Clayton, Ralph L." <claytonrl@nnva.gov>, "Rohlf, Cynthia D." <rohlfcd@nnva.gov>

Mr. Fisher,

The City of Newport News supports the project and has no comments at this time.

Respectfully,

Craig M Galant, PE

**Acting Director of Engineering** 

City of Newport News

2400 Washington Avenue, 8th Floor

Newport News, VA 23607

757.926.8626 office

757.503.2074 cell

CAUTION: This email originated from **outside** your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Please see below/attached.



# Re: NEW PROJECT ACOE Emergency Streambank, DEQ #20-137F

1 message

**Warren, Arlene** <arlene.warren@vdh.virginia.gov>
To: John Fisher <john.fisher@deq.virginia.gov>

Cc: rr Environmental Impact Review <eir@deq.virginia.gov>

Mon, Oct 26, 2020 at 8:26 AM

Project Name: Emergency Streambank and Shoreline Protection, James River Shoreline,

Newport News Project #: 20-137F UPC #: N/A

**Location: City of Newport News** 

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.** 

There are no public groundwater wells within a 1-mile radius of the project site.

There are no surface water intakes located within a 5-mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts to public drinking water sources due to this project.

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene Fields Warren

**GIS Program Support Technician** 

Office of Drinking Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781



#### VIRGINIA INSTITUTE OF MARINE SCIENCE

October 23, 2020

Mr. John Fisher Environmental Impact Review Coordinator Virginia Department of Environmental Quality P.O. Box 1105 Richmond, VA 23218

#### Dear Mr. Fisher:

In response to your request to assist DEQ in determining federal consistency the Virginia Institute of Marine Science has reviewed the preliminary plans for shoreline stabilization along the James River in Newport News, **DEQ #20-137F**, and offer the following recommendations.

Data show long-term stability for the project shoreline, with minimal amounts of erosion and accretion since at least 1937 (Milligan *et al.* 2010). Therefore, further time can be afforded for refinement of the design to either incorporate living shoreline components or reduce direct impacts to subaqueous bottomland. The site is characterized by a high and steep bank with concrete rubble along much of the intertidal and nearshore area at the toe of the slope which creates an intertidal/nearshore area of low habitat value. However, the proposed project design only minimally increases the value of aquatic habitat. Modifying the slope and revetment design could create a living shoreline without compromising shoreline resilience. We recommend consideration of either gapped breakwaters or larger cap rock along the length of the revetment to allow for aquatic faunal ingress/egress to a vegetated wetland constructed at the appropriate tidal elevations landward of the rock structure(s) and at the toe of a redesigned slope.

If a living shoreline is shown to be impracticable, then we further recommend consideration of placing the revetment at the toe of the existing bank to reduce the encroachment upon and filling of subaqueous bottomland. The long-term stability of this shoreline supports this as a likely viable option. The existing concrete rubble could possibly be repurposed into revetment construction.

We further recommend that the project plans included in the full joint permit application provide detailed information on how the project will tie-in to the shoreline along the existing pier and adjacent properties.

Thank you for the opportunity to provide comments, and we hope you find them constructive. Please contact me if you have questions or require further information.

Sincerely,

Lyle Varnell

Associate Director for Advisory Services

# **Reference**

Milligan, D. A., O'Brien, K. P., Wilcox, C., & Hardaway, C. (2010) Shoreline Evolution: City of Newport News, Virginia James River and Hampton Roads Shorelines. Virginia Institute of Marine Science, William & Mary. https://doi.org/10.21220/V5ZB1W

Matthew J. Strickler Secretary of Natural Resources Marine Resources Commission 380 Fenwick Road Bldg 96 Fort Monroe, VA 23651-1064

Steven G. Bowman Commissioner

November 20, 2020

Department of Environmental Quality Office of Environmental Impact Review Attn: John Fisher P.O. Box 1105 Richmond, VA 23218

Re: Emergency Streambank and Shoreline Protection, James

River Shoreline, Newport News

Dear Mr. Fisher

This will respond to the request for comments regarding the Coastal Zone Management Act Federal Consistency Determination for the Emergency Streambank and Shoreline Protection of the James River Shoreline project (DEQ # 20-137F) prepared by the Norfolk District, U.S Army Corps of Engineers, on behalf of the City of Newport News. Specifically, the USACE has proposed a shoreline stabilization project of approximately a 600-foot section of an eroded riverbank along the James River.

Please be advised that the VMRC, pursuant to §28.2-1200 et seq of the Code of Virginia, has jurisdiction over any encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. The VMRC administers the enforceable policies of fisheries management, subaqueous lands, tidal wetlands, and coastal primary sand dunes and beaches which comprise some of Virginia's Coastal Zone Management Program.

VMRC staff has reviewed the submittal and offers the following comments: Correspondence provided by our scientific advisors at VIMS suggests that this shoreline has experienced little or no erosion for at least the past 83 years, therefore, they question the documents treatment of the site as a pending emergency. Further in light of the Commonwealth's new living shorelines legislation passed in 2020, it is our and VIMS' opinion that the design could be modified to create a living shoreline using either gapped breakwaters, or a sill similar to the one proposed with either saddles or larger top stone to facilitate faunal ingress/egress. The slope could be modified to support wetlands vegetation at the proper tidal elevations. Another strategy could involve placing a revetment at the toe of the existing slope (due to the long-term stability) which would significantly reduce filling of subaqueous bottom. Unless alternatives analyses show these strategies to be infeasible, currently the proposed design does not meet Virginia's new living shoreline requirements.

Please be advised that the Commission's eventual permit action and identification of specific permit conditions cannot be finalized until our receipt of the required joint permit application and our public interest permit review process. Any permit decision reached by the Commission will clarify the permit conditions that are necessary to insure consistency with the submerged lands, tidal wetlands and marine

Department of Environmental Quality November 20, 2020 Page Two

fishery elements of Virginia's Coastal Zone Management Program.

If you have any questions please contact me at 757-247-2276 or by email at jeff.madden@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,

Jeffrey P. Madden

Environmental Engineer, Habitat Management

neg midde

JM/tlb HM Matthew J. Strickler Secretary of Natural Resources

Clyde E. Cristman *Director* 



Rochelle Altholz Deputy Director of Administration and Finance

Russell W. Baxter Deputy Director of Dam Safety & Floodplain Management and Soil & Water Conservation

Nathan Burrell Deputy Director of Government and Community Relations

> Thomas L. Smith Deputy Director of Operations

### **MEMORANDUM**

DATE: October 29, 2020

TO: John Fisher, DEQ

FROM: Roberta Rhur, Environmental Impact Review Coordinator

SUBJECT: DEQ 20-137F, ACOE: Emergency Streambank and Shoreline Protection,

#### Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <a href="http://vafwis.org/fwis/">http://vafwis.org/fwis/</a> or contact Ernie Aschenbach at 804-367-2733 or <a href="maintain:Ernie.Aschenbach@dwr.virginia.gov">Ernie.Aschenbach@dwr.virginia.gov</a>.

## Division of Dam Safety and Floodplain Management

### Floodplain Management Program:

The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (Shaded X Zone).

All development within a Special Flood Hazard Area (SFHA), as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance.

#### State Agency Projects Only

Executive Order 45, signed by Governor Northam and effective on November 15, 2019, establishes mandatory standards for development of state-owned properties in Flood-Prone Areas, which include Special Flood Hazard Areas, Shaded X Zones, and the Sea Level Rise Inundation Area. These standards shall apply to all state agencies.

- 1. Development in Special Flood Hazard Areas and Shaded X Zones
  - A. All development, including buildings, on state-owned property shall comply with the locally-adopted floodplain management ordinance of the community in which the state-owned property is located and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
  - B. If any state-owned property is located in a community that does not participate in the NFIP, all development, including buildings, on such state-owned property shall comply with the NFIP requirements as defined in 44 CFR §§ 60.3, 60.4, and 60.5 and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
    - (1) These projects shall be submitted to the Department of General Services (DGS), for review and approval.
    - (2) DGS shall not approve any project until the State NFIP Coordinator has reviewed and approved the application for NFIP compliance.
    - (3) DGS shall provide a written determination on project requests to the applicant and the State NFIP Coordinator. The State NFIP Coordinator shall maintain all documentation associated with the project in perpetuity.
  - C. No new state-owned buildings, or buildings constructed on state-owned property, shall be constructed, reconstructed, purchased, or acquired by the Commonwealth within a Special Flood Hazard Area or Shaded X Zone in any community unless a variance is granted by the Director of DGS, as outlined in this Order.

#### The following definitions are from Executive Order 45:

Development for NFIP purposes is defined in 44 CFR § 59.1 as "Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

The Special Flood Hazard Area may also be referred to as the 1% annual chance floodplain or the 100-year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study. This includes the following flood zones: A, AO, AH, AE, A99, AR, AR/AE, AR/AO, AR/AH, AR/A, VO, VE, or V.

The Shaded X Zone may also be referred to as the 0.2% annual chance floodplain or the 500- year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study.

The Sea Level Rise Inundation Area referenced in this Order shall be mapped based on the National Oceanic and Atmospheric Administration Intermediate-High scenario curve for 2100, last updated in 2017, and is intended to denote the maximum inland boundary of anticipated sea level rise.

"State agency" shall mean all entities in the executive branch, including agencies, offices, authorities, commissions, departments, and all institutions of higher education.

"Reconstructed" means a building that has been substantially damaged or substantially improved, as defined by the NFIP and the Virginia Uniform Statewide Building Code.

### Federal Agency Projects Only

Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR's Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must contact the local floodplain administrator for an official floodplain determination and comply with the community's local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. For state projects, DCR recommends that compliance documentation be provided prior to the project being funded. For federal projects, the applicant/developer is encouraged reach out to the local floodplain administrator and comply with the community's local floodplain ordinance.

To find flood zone information, use the Virginia Flood Risk Information System (VFRIS): <a href="https://www.dcr.virginia.gov/vfris">www.dcr.virginia.gov/vfris</a>

To find community NFIP participation and local floodplain administrator contact information, use DCR's Local Floodplain Management Directory: <a href="www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory">www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory</a>

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

# DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR PROGRAM COORDINATION

## **ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY**

TO: John Fisher

We thank **OEIR** for providing DEQ-AIR an opportunity to review the following project: **Document Type: Environmental Assessment and Federal Consistency Determination Project Sponsor: Army Corps of Engineers** Project Title: Emergency Streambank and Shoreline Protection, James River Shoreline, **Newport News Location: City of Newport News** Project Number: DEQ #20-137F Accordingly, I am providing following comments for consideration. PROJECT LOCATION: **X OZONE ATTAINMENT** AND EMISSION CONTROL AREA FOR NOX & VOC REGULATORY REQUIREMENTSMAY BE APPLICABLE TO: CONSTRUCTION **OPERATION** STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY: 1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E − STAGE I 2. 9 VAC 5-45-760 et seg. – Asphalt Paving operations 3. X 9 VAC 5-130 et seq. – Open Burning 4. X 9 VAC 5-50-60 et seg. Fugitive Dust Emissions 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to\_ 5. 9 VAC 5-60-300 et seg. – Standards of Performance for Toxic Pollutants 6. 7. 9 VAC 5-50-400 Subpart\_\_\_\_\_, Standards of Performance for New Stationary Sources, designates standards of performance for the 8. 9 VAC 5-80-1100 et seg. of the regulations – Permits for Stationary Sources 9. 9 VAC 5-80-1605 et seg. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the 10. 

9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas 11. 

9 VAC 5-80-800 et seq. Of the regulations – State Operating Permits. This rule may be COMMENTS SPECIFIC TO THE PROJECT: All precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>).

DATE: October 8, 2020

Ks. Launt

(Kotur S. Narasimhan)
Office of Air Data Analysis



## **MEMORANDUM**

TO: John Fisher, DEQ/EIR Environmental Program Planner

FROM: Carlos A. Martinez, Division of Land Protection & Revitalization Review

Coordinator

DATE: October 14, 2020

COPIES: Sanjay Thirunagari, Division of Land Protection & Revitalization Review

Manager; file

SUBJECT: Environmental Impact Review: 20-137F Emergency Streambank and Shoreline

Protection, James River Shoreline in the City of Newport News, Virginia.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the Army Corps of Engineers' October 2, 2020 EIR for Emergency Streambank and Shoreline Protection, James River Shoreline in the City of Newport News, Virginia.

DLPR staff conducted a search (500 ft. radius) of the project area of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity to the project area. DLPR search did not identify any waste sites within the project area which might impact the project.

DLPR staff has reviewed the submittal and offers the following comments:

Hazardous Waste/RCRA Facilities – none in close proximity to the project area

CERCLA Sites – none in close proximity to the project area

Formerly Used Defense Sites (FUDS) – none in close proximity to the project area.

Solid Waste - none in close proximity to the project area

Virginia Remediation Program (VRP) – none in close proximity to the project area

<u>Petroleum Releases</u> – none in close proximity to the project area

#### PROJECT SPECIFIC COMMENTS

None

#### GENERAL COMMENTS

# Soil, Sediment, Groundwater, and Waste Management

Any soil, sediment or groundwater that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 CFR Part 107

# **Pollution Prevention – Reuse - Recycling**

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Carlos A. Martinez by phone at (804) 698-4575 or email <u>carlos.martinez@deq.virginia.gov</u>.



# Re: NEW PROJECT ACOE Emergency Streambank, DEQ #20-137F

1 message

**Gavan, Lawrence** <a href="mailto:square">| Cavan, Lawrence</a> <a href="mailto:square">| Cavan, Cav

Mon, Oct 5, 2020 at 10:44 AM

- (a) Agency Jurisdiction. The DEQ administers the nonpoint source pollution control enforceable policy of the VCP through the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) and Virginia Stormwater Management Law and Regulations (VSWML&R).
- (b) Erosion and Sediment Control Plan. The Applicant is responsible for submitting a project-specific erosion and sediment control (ESC) plan to the locality in which the project is located for review and approval pursuant to the local ESC requirements, if the project involves a land-disturbing activity of 10,000 square feet or more (2,500 square feet or more in a Chesapeake Bay Preservation Area). Depending on local requirements the area of land disturbance requiring an ESC plan may be less. The ESC plan must be approved by the locality prior to any land-disturbing activity at the project site. All regulated land-disturbing activities associated with the project, including on and off site access roads, staging areas, borrow areas, stockpiles, and soil intentionally transported from the project must be covered by the project specific ESC plan. Local ESC program requirements must be requested through the locality. [Reference: Virginia Erosion and Sediment Control Law §62.1-44.15 et seq.; Virginia Erosion and Sediment Control Regulations 9VAC25-840-10 et seq.]
- **(c) Stormwater Management Plan.** Depending on local requirements, a Stormwater Management (SWM) plan may be required. Local SWM program requirements must be requested through the locality. [Reference: *Virginia Stormwater Management Act* §62.1-44.15 et seq.; *Virginia Stormwater Management (VSMP) Permit Regulations* 9VAC25-870-10 et seq.]
- (d) General Permit for Stormwater Discharges from Construction Activities (VAR10). DEQ is responsible for the issuance, denial, revocation, termination and enforcement of the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to municipal separate storm sewer systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program.

The operator or owner of a construction project involving land-disturbing activities equal to or greater than 1 acre is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the General Permit and the SWPPP must address water quality and quantity in accordance with the VSMP Permit Regulations. General information and registration forms for the General Permit are available at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx (Reference: VSWML 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC 25-880 et seq.)



# Commonwealth of Virginia VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219 P.O. Box 1105, Richmond, Virginia 23218 (800) 592-5482 www.deg.virginia.gov

Matthew J. StricklerDavid K. Paylor Secretary of Natural ResourcesDirector (804) 698-4000

## **MEMORANDUM**

**TO**: John Fisher, U.S. Army Corps of Engineers

**FROM**: Amber Foster, DEQ Principal Environmental Planner

**DATE**: October 10, 2020

**SUBJECT:** Emergency Streambank and Shoreline Protection, James River Shoreline,

**Newport News** 

We have reviewed the information to support the Federal Consistency Determination for the proposed project and offer the following comments regarding consistency with the provisions of the Chesapeake Bay Preservation Area Designation and Management Regulations (Regulations):

In the City of Newport News, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMA lands in Newport News include floodplains, highly erodible soils and all lands adjacent to and 100 feet landward of the RPA. The City of Newport News also designated Intensely Developed Areas (IDAs) as redevelopment areas of the City, which incorporates both the RPA and RMA.

The U.S. Army Corps of Engineers (USACE) is the lead federal agency for this feasibility study and the non-Federal sponsor is the City of Newport News. The study area is located entirely within the City of Newport News along the north bank of the James River, west of the James River Bridge (US-17/US-258). The project site is bound on the south by the Government Ditch, to the north by North Avenue, and extends eastward to River Road.

An approximate 600-foot section of the riverbank along the James River has been severely eroded by the combined effects of natural erosion processes, river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding bluff is an

imminent threat to existing public facilities, causing continual loss of land, threatening existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope.

The purpose of the proposed project, which has been identified as the Recommended Plan in the draft Integrated Feasibility Report/Environmental Assessment (IFR/EA), is to conduct a shoreline stabilization project to create safer bank conditions to reduce the public safety hazard resulting from the 25 foot bluff and to eliminate the current threat to existing public facilities. The majority of the project site is owned by the City of Newport News; however, there are several privately owned parcels within the project limits.

The proposed project would stabilize the existing eroding shoreline within the RPA and would further minimize sedimentation into the James River during substantial precipitation events. The project as proposed consists of the installation of an approximately 600-foot longitudinal rock sill graded on a 1:3 slope. It is anticipated that the proposed project would be constructed in a manner to avoid the shoreline and an existing residential pier on private property. The exact siting of the sill and advanced designs will be further developed during the Design / Implementation (DI) phase; however, it is anticipated that impacts would occur channelward of mean low water.

Pursuant to the *Coastal Zone Management Act of 1972*, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with Virginia's Coastal Zone Management Program (CZM Program). These activities must be conducted in a manner "consistent to the maximum extent practicable" with the enforceable policies of the Virginia CZM Program. Those enforceable policies are administered through the *Chesapeake Bay Preservation Act* (Act) and Regulations.

Pursuant to 9 VAC 25-830-140(5)(a)(4) of the Regulations, shoreline erosion control projects are recognized as permitted modifications of the RPA. In order to maintain the functional value of the buffer area, existing trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.

Projects that include land disturbing activity in RPA and RMA must adhere to the general performance criteria of the Regulations (9 VAC 25-830-130), especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Regulations*, 9 VAC 25-840. Additionally, stormwater management criteria consistent with the water quality protection provisions of the *Virginia Stormwater Management Regulations*, 9 VAC 25-870, shall be satisfied.

In addition to the general performance criteria, land disturbance, development, or redevelopment in locally designated RPAs shall be consistent with the development criteria in § 9 VAC 25-830-

140 of the Regulations, especially with respect to 9 VAC 25-830-140(1)(a) and -(6) that requires a water quality impact assessment (WQIA) for any proposed development within the Resource Protection Area. The purpose of the WQIA is to identify the proposed impacts of land development or disturbance on water quality and lands in the RPA consistent with the goals and objectives of the Act, the Regulations, and local programs, and to determine specific measures for mitigation of those impacts.

Provided adherence to the above requirements, particularly as it relates to the requirements to minimize land disturbance, retain existing vegetation and minimize impervious cover, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and Regulations.

# APPENDIX A-5 COORDINATION

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS



# Responses to Comments Received on the Draft Integrated Feasibility Report/Environmental Assessment for the Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia

| Commenter   | Date Received     | Comment  | Response  |
|---|-------------------|--|---|
| Commonwealth of Virginia, Department of Environmental Quality, Ms. Bettina Rayfield | November 20, 2020 | Federal Consistency Concurrence Response, Appendix A-4 | Thank you for providing the concurrence response to the Coastal Zone Management Federal Consistency Determination. The Corps will obtain and comply with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. A Joint Permit Application will be submitted to the Virginia Marine Resources Commission, and applicable permits/approvals will be secured prior to construction. If, prior to construction, the activities should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, the Corps would submit supplemental consistency determination to DEQ for review and concurrence pursuant to 15 CFR 930.46. The recommendations provided in the concurrence response will be incorporated as part of the project to the extent practicable.  In response to VMRC's comments on page 6, the USACE evaluated a living shoreline approach as an alternative in the Integrated Feasibility Report/EA. The living shoreline alternative considered, would have a footprint that would extend |
|   |                   |  | further channelward than the Preferred Alternative, the stone sill and vegetated slope. Additionally, a minimum of 10 ft  |

|   |                     |  | must be maintained from the top of the bank slope and the adjacent roadway. Grading the bank further landward to accommodate a living shoreline would not be considered feasible due to the constraints of the site. As designs advance in the next phase, further geotechnical studies and evaluations will be conducted to determine the exact siting of the stone sill. The USACE will continue to engage with VMRC as designs advance. Impacts to Stateowned submerged land will be minimized to the extent practicable. During the Design and Implementation Phase, design refinements will be conducted for the project based on new field investigation and analyses as discussed in Chapter 12 of the Engineering Appendix. |
|---|---------------------|--|---|
|   |                     |  | The project will comply with the requirements of the Virginia Erosion and Sediment Control Regulations (9 VAC 25-840) and satisfy stormwater management criteria consistent with the water quality protection provisions of the Virginia Stormwater Management Regulations (9 VAC 25-870).  |
| Environmental<br>Protection<br>Agency, Ms.<br>Carrie Traver | December 7,<br>2020 | Comments in PDF Format are also provided in Appendix A-5.  We recommend that the final Study and Finding of No Significant Impact (FONSI) address whether there has been specific outreach to affected property owners. If | Chapter 9 in the Final Integrated Report/EA has been updated to reflect the coordination that occurred during the release of the draft Integrated Feasibility Report/EA. Property owners adjacent to the project site were notified via certified mail of the release of the draft report. A  |

outreach has not been conducted, we recommend developing an outreach plan and incorporating mitigation measures (e.g. access, noise mitigation measures, etc.) for homeowners as appropriate.

#### 1.2 PURPOSE AND SCOPE

The stated purpose of the proposed action is to stabilize the existing shoreline along the 600-foot section of the James River and prevent future erosion resulting from the combined effects of storm surge, sea level rise, and stormwater runoff. While the erosion processes and sea level rise are described in detail, the role and specific

sources of stormwater runoff did not appear to be addressed in the study. If uncontrolled stormwater is contributing to the instability, we recommend that stormwater management be discussed and incorporated into the project plans.

# 5.4 DESIGN AND CONSTRUCTION CONSIDERATIONS

Based on the information provided, we concur that additional studies, including geotechnical exploration be performed during the design phase. We also recommend reviewing the completed studies and projects (as discussed in Section 1.5) along the James River to inform the final design.

5.5 While equipment and operation would vary during construction, the typical noise indicated for backhoes and loaders is 80 and 85 decibels approximately 50 feet from the source. The EA

virtual public meeting was held on November 19, 2020 with participation by residents along River Road. Further outreach will be conducted in conjunction with the City of Newport News as designs advance in the next phase of the project.

### 1.2 PURPOSE AND SCOPE

The current feasibility study includes a 10% design level. Stormwater management will be further discussed and incorporated into the project plans, as determined necessary, as designs advance in the next phase of the project.

# 5.4 DESIGN AND CONSTRUCTION CONSIDERATIONS

Other completed projects along the James River were given consideration during the development of the alternatives, including the bank stabilization and living shoreline project constructed by the City of Newport News in 2016 at the Mariners Museum (Kettle Pond) approximately 1-2 miles upstream of the proposed project site.

No noise-related concerns were raised by the public, including adjacent property owners, during the public review of the draft Integrated Feasibility Report/EA or during the virtual public meeting conducted on November 19, 2020. There are currently no proposed noise mitigation measures proposed. All noise levels

states that the homes located along River Road are approximately 60-70 feet from the project site. We recommend that the temporary noise impacts

be further evaluated to support the conclusion that these impacts would be less than significant.

As the construction is in close proximity to residences, noise mitigation measures may be appropriate. We recommend working with potentially impacted homeowners to address impacts of construction noise on residents, especially children or others who may be sensitive to noise.

6.11 OCCUPATIONAL HEALTH AND SAFETY While this section focuses on occupational health, public safety considerations clearly factor into the purpose of the project. We recommend discussing the project's potential benefits and any negative effects on public safety in both the long term (project life) and short-term (construction), including how construction hazards will be addressed (e.g. fencing, signage, etc.).

# 6.15 VEGETATION, WETLANDS, AND SUBMERGED VEGETATION

We note that the EA indicates full compliance with Executive Order 13112 but does not appear to include a discussion of the project's potential to spread or reduce invasive species, including the Phragmites australis identified in the project area (Section 2.3.15). We recommend measures to prevent introducing or

would be in compliance with federal, state, and local noise regulations.

6.11 OCCUPATIONAL HEALTH AND SAFETY The project will improve the existing site conditions by replacing the steep, eroded slope with a stable, 3:1 slope which would improve the long-term safety of the site. The placement of signage may be considered by the City of Newport News following completion of the project. During the construction of the project, the contractor would be required to ensure the safety of the site and may utilize methods such as fencing and/or signage as determined necessary.

# 6.15 VEGETATION, WETLANDS, AND SUBMERGED LANDS

Additional text has been added to Section 6.15 to address this comment and ensure compliance with Executive Order 13112.

The native seed species/types will be identified during the design phase of the project. Potential species were identified during the feasibility phase and as part of the Final Integrated Feasibility Report/EA.

#### 6.18 TRANSPORTATION

As stated in Chapter 5.4, Design and Construction Considerations, the Contractor shall take into consideration the ability of property owners to access their properties at all times. Additionally, traffic control may need to be taken into

spreading invasive species during construction be added to the applicable plans.

#### 6.18 TRANSPORTATION

It is noted that portions of River Road adjacent to the project site may be temporarily closed during construction, which could affect access to residential property. We recommend stating if measures will be taken to ensure property access.

#### 6.19 CUMULATIVE IMPACTS

Section 6.19 notes that if the existing stone protection is not maintained by the private property owner, this could increase the vulnerability of the proposed rock sill to failure. We recommend clarifying if there is an agreement in place for maintenance or if it will be sought.

#### **6.2 AIR QUALITY**

Under the general conformity rule, reasonably foreseeable emissions associated with all operational and construction activities, both direct and indirect, should be quantified and compared to the annual de minimis levels for those pollutants in nonattainment or maintenance for that area. Section 6.2 concludes that impacts to air quality would be less than significant; however, no analysis of emissions was found in the EA. We recommend that this analysis be included in the appendices.

consideration by the Contractor. The roadway shall have enough space to allow emergency vehicles to access the properties.

6.19 CUMULATIVE IMPACTS
The Real Estate Plan is included in
Appendix B and includes preliminary
estimates of impacts and potential
required property rights and interests.

#### 6.2 AIR QUALITY

Emissions resulting from the use of diesel-fuel equipment during construction, such as dump trucks and excavators would be temporary and only occur during the construction of the project. As required by the Virginia DEQ, fugitive dust would be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 et seg. of the Regulations for the Control and Abatement of Air Pollution. There are no additional operational air quality impacts associated with the project only negligible to minor, temporary impacts associated with construction. Therefore, impacts to air quality would be less than significant. The USACE has determined that no additional analysis of emissions is necessary.

6.6 FISHERY RESOURCES AND ESSENTIAL FISH HABITAT During the Design and Implementation Phase, further details will be available regarding monitoring necessary to ensure

# 6.6 FISHERY RESOURCES AND ESSENTIAL FISH HABITAT

As indicated, minimizing turbidity is important to minimize potential effects to resources such as Essential Fish Habitat and shellfish grounds. The EA states that Best Management Practices (BMPs) such as the use of a turbidity curtain would be implemented if feasible to reduce turbidity during construction. We suggest stating when this

would be evaluated. If a turbidity curtain is not feasible, we recommend that other BMPs be identified. We also recommend identifying the monitoring that will be done to maintain all erosion and sediment control measures both during and after construction.

As discussed in the ENGINEERING APPENDIX (Appendix C) -12.0 Preconstruction Engineering and Design (PED) Consideration, updated surveys during PED are critical to develop accurate construction plans and specifications and ensure the success of the project. Such surveys include an updated topographic and bathymetric survey, an evaluation of the current condition of the existing pier and the existing rock sill on the private property, and conditions of any additional private piers or structures that may be constructed. We recommend that Final IFR/EA list the additional surveys that will be conducted for final design.

We note that the draft FONSI includes this statement: "Comments from state and federal agency review did not result in any changes to the final IFR/EA." While we assume that this is

erosion and sediment controls are maintained both during and after construction. Additionally, the feasibility of using a turbidity will also be further evaluated.

Section 12 of the Engineering Appendix (Appendix C) included in the Final Integrated Feasibility Report/EA identifies the recommended Design and Implementation Phase considerations which include updated topographic and bathymetric surveys, another geotechnical exploration, and reexamination of existing pier assumptions.

The language is the draft FONSI is language from the template. All comments received on the draft Integrated Feasibility Report/EA have been considered and incorporated as appropriate.

| Department of<br>Conservation<br>and Recreation  | December 7, 2020 | language from the template, we hope that all comments will be fully considered and incorporated as appropriate.  Please see PDF in A-5.   | Thank you for your comments.  |
|--|------------------|---|---|
| Division of<br>Natural Heritage,<br>Tyler Meader |                  |   |   |
| U.S. Fish and<br>Wildlife Service                | March 25, 2021   | However, the Service would like the Corps to reconsider the potential for a greener shoreline. Under Alternatives Considered but Dismissed, breakwaters were mentioned. For fish and wildlife resources, segmented breakwaters would offer a greener shoreline instead of a rock sill with Alternative 4.  Because of the ability to reduce erosion, improve marine habitat and spawning area, improve water quality, and even potential to filter stormwater and groundwater runoff, the Service recommends an alternative with living shoreline and to consider including oyster reef structures and/or segmented breakwater to promote submerged land habitat quality and provide the most benefits for fish and wildlife resources. | Breakwaters were not carried forward as a reasonable alternative due to the following: 1) required modeling that would likely put the cost over the cost limit allowed for CAP Section 14; 2) breakwaters do not reduce wind erosion; and 3) breakwaters could impact the existing piers and the additional real estate cost associated with those impacts would likely put the cost over the cost limit allowed for CAP Section 14.  The USACE evaluated a living shoreline approach as an alternative in the Integrated Feasibility Report/EA. The living shoreline alternative considered, would have a footprint that would extend further channelward than the Preferred Alternative, the stone sill and vegetated slope. Additionally, a minimum of 10 ft must be maintained from the top of the bank slope and the adjacent roadway. Grading the bank further landward to accommodate a living shoreline would not be considered feasible due to the |

| Sharon and Brent Mathison  December 3, 2020  First of all, thank you to you and the city for making these needed improvements.  We do have a few questions/concerns:  (Note: A copy of this comis also provided in PDF final table.)  The easement we are location and the city for making these needed improvements.  The easement we are location and the city for making these needed improvements.   | d evaluations will<br>ne the exact  |
|--|---|
| 1. We want to retain our water rights to the river.  We purchased this home and the price reflects this. We were very close to pier approval. We halted this as word of improvements became known.  2. What is the timeline? Paperwork indicates several years and that doesn't work well for us since we have a boat and want a place to put it soon.  3. How much work will be done from water vs land?  4. We have a tree we want protected.  5. We have paver patio and driveway and fence. We don't want disrupted.  5. We have stairs existing to water will those remain intact?  6. We have been working on grass will this and plantings be fixed upon completion?  the bank protection ease not impact your riparian impact your riparian impact your robit impact your ripiraina impact your riparian impact your robit impact your robit impact your ripiraina impact your robit impact your ability to buit werbiage for the Bank Preasement is as follows:  A perpetual and assigna and right-of-way in, on, or the land hereinafter desconcation, construction, on maintenance, alteration, rehabilitation and replace protection works, and for stone, riprap and other maintenance, alteration, rehabilitation and replace protection of the bank ago together with the continue cut, fell, remove and disparded to your department of the park ago together with the continue cut, fell, remove and disparded to your department of the park ago together with the continue cut, fell, remove and disparded to your department of the park ago together with the continue cut, fell, remove and disparded to your department of the park ago together with the continue cut, fell, remove and disparded to your department of the park ago together with the continue cut, fell, remove an | oking obtain is ment. This will rights, but it could id a dock. The otection  ASEMENT.  ble easement over and across cribed for the peration, repair, ement of a bank the placement of naterials for the painst erosion; ing right to trim, pose therefrom all actions, and other re and dispose of s within the limits o place thereon ther fill material, |

- 8. What is \$25,000 real-estate allocation for?
- 9. Is it possible to start the slope further from road than 10 feet? This would maximize our property. It is our understanding that our property went out another 25 feet.

Essentially to recap. Mainly, we don't want to give up our water rights or have a disruption to our view. If these are possible we will be in support of project.

Thanks, Sharon and Brent Mathison slopes and contour, and to prevent erosion by structural and vegetative methods and to do any other work necessary and incident to the project; together with the right of ingress and egress for such work; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however to existing easements for public roads and highways, public utilities, railroads and pipelines.

The approval of the Final CAP Decision Document as of today is scheduled for February 26, 2021. If the alternative identified in the feasibility study is approved by the North Atlantic Division (NAD) and the City of Newport News, the Norfolk District will then execute a Project Partnership Agreement, prepare plans and specifications, then manages construction of the project.

This ultimately depends on the contractor of how they can and will approach the project. The primary constructability issue for this project is site access. Access by water will be difficult as the project site is in shallow water. Access and staging by land will also be difficult as there is limited space available at the top of the slope bank on which to stage and stockpile materials and equipment without

impacting the adjacent roadway. Construction in tight quarters tends to take longer, which increases costs, and may be more dangerous for the workers. Impacts to the roadways will need to be managed to ensure that the adjacent private property owners maintain access to their properties and driveways. A solution to this issue is potentially providing an offsite staging area to the contractor, one that is somewhat nearby the site where most of the required equipment and materials can be staged which can be moved to the site as needed for construction. Therefore, at the site the contractor will only require smaller stockpiles.

We have not selected which trees have to be removed. The design phase will select which trees need to be removed. Trees within 10-15 feet of the structure will need to be removed to protect the integrity of the project.

The City of Newport News has related to the Norfolk District on January 19, 2021 that the paver patio, driveway, and fence that an Encroachment Agreement will need to be executed between the homeowner and the City. The City also stated that the stairway would need to be removed for the project and would be in contact with the homeowner to discuss a resolution.

The City of Newport News related to the Norfolk District on January 19, 2021 that the City Attorney had met with the previous owner and the previous homeowner's Attorney. The City related to the Norfolk District that and extensive tile search was conducted. The City found evidence that the property line went to mean low water (MLW) along the 15-foot strip. Virginia Marine Resources Commission (VMRC) was then consulted regarding a permit for the construction of the pier that has not been built as of today.

We would need to know where these planting are to be able to answer this question and this can be evaluated in the design phase.

This is for the Federal Administrative costs, to work with the NFS to ensure the proper Real Estate interests are acquired for the project, certify the lands available and execute the authorization for entry for construction.

The start of the slope will be evaluated in the Engineering design. The project will be required to minimize environmental impacts.



# DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 30, 2021

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia Response to Comments on Draft Integrated Feasibility Report/Environmental Assessment

Ms. Bettina Rayfield Virginia Department of Environmental Quality Office of Environmental Impact Review P.O. Box 1105 Richmond, VA 23218-1105

Dear Ms. Rayfield:

The U.S. Army Corps of Engineers (USACE) Norfolk District has received your comments, dated November 20, 2020 concerning the Draft Integrated Feasibility Report/Environmental Assessment and Federal Consistency Determination for the Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia, DEQ 20-137F. All comments submitted during the public comment period were carefully reviewed to better inform USACE during the development of the Final Integrated Feasibility Report/Environmental Assessment.

The USACE will obtain and comply with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. A Joint Permit Application will be submitted to the Virginia Marine Resources Commission (VMRC), and applicable permits/approvals will be secured prior to construction. If, prior to construction, the activities should change significantly and any of the enforceable policies of the Virginia Coastal Zone Management Program would be affected, the USACE would submit a supplemental consistency determination to DEQ for review and concurrence pursuant to 15 CFR 930.46. The recommendations provided in the concurrence response will be incorporated as part of the project to the extent practicable.

In response to the VMRC's comments on page 6, the USACE evaluated a living shoreline approach as an alternative in the Integrated Feasibility Report/EA. The living shoreline alternative considered, would have a footprint that would extend further channelward than the Preferred Alternative, the stone sill and vegetated slope. Additionally, a minimum of 10 feet must be maintained from the top of the bank slope and the adjacent roadway. Grading the bank further landward to accommodate a

living shoreline would not be considered feasible due to the constraints of the site. As designs advance in the next phase, further geotechnical studies and evaluations will be conducted to determine the exact siting of the stone sill. The USACE will continue to engage with VMRC as designs advance. Impacts to State-owned submerged land will be minimized to the extent practicable. During the Design and Implementation Phase, design refinements will be conducted for the project based on new field investigation and analyses as discussed in Chapter 12 of the Engineering Appendix.

The project will comply with the requirements of the Virginia Erosion and Sediment Control Regulations (9 VAC 25-840) and satisfy stormwater management criteria consistent with the water quality protection provisions of the Virginia Stormwater Management Regulations (9 VAC 25-870).

Thank you for your comments on the Draft Integrated Feasibility Report/Environmental Assessment. Please do not hesitate to contact me at (757) 201-7728 or via email at justine.r.woodward@usace.army.mil if you have any questions.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward



## DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 30, 2021

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia Response to Comments on Draft Integrated Feasibility Report/Environmental Assessment

Ms. Carrie Traver U.S. Environmental Protection Agency, Region 3 1650 Arch Street – 3RA12 Philadelphia, PA 19103

Dear Ms. Traver:

The U.S. Army Corps of Engineers (USACE) Norfolk District has received your comments, dated December 7, 2020 concerning the Draft Integrated Feasibility Report/Environmental Assessment (EA) for the Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia. All comments submitted during the public comment period were carefully reviewed to better inform USACE during the development of the Final Integrated Feasibility Report/Environmental Assessment. Below are responses to your comments:

We recommend that the final Study and Finding of No Significant Impact (FONSI) address whether there has been specific outreach to affected property owners. If outreach has not been conducted, we recommend developing an outreach plan and incorporating mitigation measures (e.g. access, noise mitigation measures, etc.) for homeowners as appropriate.

Chapter 9 in the Final Integrated Report/EA has been updated to reflect the coordination that occurred during the release of the Draft Integrated Feasibility Report/EA. Property owners adjacent to the project site were notified via certified mail of the release of the draft report. A virtual public meeting was held on November 19, 2020 with participation by residents along River Road. Further outreach will be conducted in conjunction with the City of Newport News as designs advance in the next phase of the project.

The stated purpose of the proposed action is to stabilize the existing shoreline along the 600-foot section of the James River and prevent future erosion resulting from the combined effects of storm surge, sea level rise, and stormwater runoff. While the erosion processes and sea level rise are described in detail, the role and specific

sources of stormwater runoff did not appear to be addressed in the study. If uncontrolled stormwater is contributing to the instability, we recommend that stormwater management be discussed and incorporated into the project plans.

The current feasibility study includes a 10% design level. Stormwater management will be further discussed and incorporated into the project plans, as determined necessary, as designs advance in the next phase of the project.

Based on the information provided, we concur that additional studies, including geotechnical exploration be performed during the design phase. We also recommend reviewing the completed studies and projects (as discussed in Section 1.5) along the James River to inform the final design.

Other completed projects along the James River were given consideration during the development of the alternatives, including the bank stabilization and living shoreline project constructed by the City of Newport News in 2016 at the Mariners Museum (Kettle Pond) approximately 1-2 miles upstream of the proposed project site.

While equipment and operation would vary during construction, the typical noise indicated for backhoes and loaders is 80 and 85 decibels approximately 50 feet from the source. The EA states that the homes located along River Road are approximately 60-70 feet from the project site. We recommend that the temporary noise impacts be further evaluated to support the conclusion that these impacts would be less than significant. As the construction is in close proximity to residences, noise mitigation measures may be appropriate. We recommend working with potentially impacted homeowners to address impacts of construction noise on residents, especially children or others who may be sensitive to noise.

No noise-related concerns were raised by the public, including adjacent property owners, during the public review of the Draft Integrated Feasibility Report/EA or during the virtual public meeting conducted on November 19, 2020. There are currently no proposed noise mitigation measures proposed. All noise levels would be in compliance with federal, state, and local noise regulations.

While this section focuses on occupational health, public safety considerations clearly factor into the purpose of the project. We recommend discussing the project's potential benefits and any negative effects on public safety in both the long term (project life) and short-term (construction), including how construction hazards will be addressed (e.g. fencing, signage, etc.).

The project will improve the existing site conditions by replacing the steep, eroded slope with a stable, 3:1 slope which would improve the long-term safety of the site. The

placement of signage may be considered by the City of Newport News following completion of the project. During the construction of the project, the contractor would be required to ensure the safety of the site and may utilize methods such as fencing and/or signage as determined necessary.

We note that the EA indicates full compliance with Executive Order 13112 but does not appear to include a discussion of the project's potential to spread or reduce invasive species, including the Phragmites australis identified in the project area (Section 2.3.15). We recommend measures to prevent introducing or spreading invasive species during construction be added to the applicable plans.

Additional text has been added to Section 6.15 to address this comment and ensure compliance with Executive Order 13112. The native seed species/types will be identified during the design phase of the project. Potential species were identified during the feasibility phase and as part of the Final Integrated Feasibility Report/EA.

It is noted that portions of River Road adjacent to the project site may be temporarily closed during construction, which could affect access to residential property. We recommend stating if measures will be taken to ensure property access.

As stated in Chapter 5.4, Design and Construction Considerations, the Contractor shall take into consideration the ability of property owners to access their properties at all times. Additionally, traffic control may need to be taken into consideration by the Contractor. The roadway shall have enough space to allow emergency vehicles to access the properties.

Section 6.19 notes that if the existing stone protection is not maintained by the private property owner, this could increase the vulnerability of the proposed rock sill to failure. We recommend clarifying if there is an agreement in place for maintenance or if it will be sought.

The Real Estate Plan is included in Appendix B and includes preliminary estimates of impacts and potential required property rights and interests.

Under the general conformity rule, reasonably foreseeable emissions associated with all operational and construction activities, both direct and indirect, should be quantified and compared to the annual de minimis levels for those pollutants in nonattainment or maintenance for that area. Section 6.2 concludes that impacts to air quality would be less than significant; however, no analysis of emissions was found in the EA. We recommend that this analysis be included in the appendices.

Emissions resulting from the use of diesel-fuel equipment during construction, such as dump trucks and excavators would be temporary and only occur during the construction of the project. As required by the Virginia Department of Environmental Quality (DEQ), fugitive dust would be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution. There are no additional operational air quality impacts associated with the project only negligible to minor, temporary impacts associated with construction. Therefore, impacts to air quality would be less than significant. The USACE has determined that no additional analysis of emissions is necessary.

As indicated, minimizing turbidity is important to minimize potential effects to resources such as Essential Fish Habitat and shellfish grounds. The EA states that Best Management Practices (BMPs) such as the use of a turbidity curtain would be implemented if feasible to reduce turbidity during construction. We suggest stating when this would be evaluated. If a turbidity curtain is not feasible, we recommend that other BMPs be identified. We also recommend identifying the monitoring that will be done to maintain all erosion and sediment control measures both during and after construction.

During the Design and Implementation Phase, further details will be available regarding monitoring necessary to ensure erosion and sediment controls are maintained both during and after construction. Additionally, the feasibility of using a turbidity will also be further evaluated.

As discussed in the ENGINEERING APPENDIX (Appendix C) -12.0 Preconstruction Engineering and Design (PED) Consideration, updated surveys during PED are critical to develop accurate construction plans and specifications and ensure the success of the project. Such surveys include an updated topographic and bathymetric survey, an evaluation of the current condition of the existing pier and the existing rock sill on the private property, and conditions of any additional private piers or structures that may be constructed. We recommend that Final IFR/EA list the additional surveys that will be conducted for final design. We note that the draft FONSI includes this statement: "Comments from state and federal agency review did not result in any changes to the final IFR/EA." While we assume that this is language from the template, we hope that all comments will be fully considered and incorporated as appropriate.

Section 12 of the Engineering Appendix (Appendix C) included in the Final Integrated Feasibility Report/EA identifies the recommended Design and Implementation Phase considerations which include updated topographic and bathymetric surveys, another geotechnical exploration, and re-examination of existing pier assumptions.

The language is the draft FONSI is language from the template. All comments received on the Draft Integrated Feasibility Report/EA have been considered and incorporated as appropriate.

Thank you for your comments on the Draft Integrated Feasibility Report/EA. Please do not hesitate to contact me at (757) 201-7728 or via email at justine.r.woodward@usace.army.mil if you have any questions.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

(Comments received from Sharon and Brent Mathison via email on December 3, 2020)

First of all, thank you to you and the city for making these needed improvements.

We do have a few questions/concerns:

1. We want to retain our water rights to the river. We purchased this home and the price reflects this. We were very close to pier approval. We halted this as word of improvements became known.

The easement we are looking obtain is the bank protection easement. This will not impact your riparian rights, but it could impact your ability to build a dock. The verbiage for the Bank Protection Easement is as follows:

#### BANK PROTECTION EASEMENT.

A perpetual and assignable easement and right-of-way in, on, over and across the land hereinafter described for the location, construction, operation, maintenance, alteration, repair, rehabilitation and replacement of a bank protection works, and for the placement of stone, riprap and other materials for the protection of the bank against erosion; together with the continuing right to trim, cut, fell, remove and dispose therefrom all trees, underbrush, obstructions, and other vegetation; and to remove and dispose of structures or obstructions within the limits of the right-of-way; and to place thereon dredged, excavated or other fill material, to shape and grade said land to desired slopes and contour, and to prevent erosion by structural and vegetative methods and to do any other work necessary and incident to the project; together with the right of ingress and egress for such work; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however to existing easements for public roads and highways, public utilities, railroads and pipelines.

2. What is the timeline? Paperwork indicates several years and that doesn't work well for us since we have a boat and want a place to put it soon.

The approval of the Final CAP Decision Document as of today is scheduled for February 26, 2021. If the alternative identified in the feasibility study is approved by the North Atlantic Division (NAD) and the City of Newport News, the Norfolk District will then execute a Project Partnership Agreement, prepare plans and specifications, then manages construction of the project.

#### 3. How much work will be done from water vs land?

This ultimately depends on the contractor of how they can and will approach the project. The primary constructability issue for this project is site access. Access by water will be difficult as the project site is in shallow water. Access and staging by land will also be difficult as there is limited space available at the top of the slope bank on which to stage and stockpile materials and equipment without impacting the adjacent roadway. Construction in tight quarters tends to take longer, which increases costs, and may be more dangerous for the workers. Impacts to the roadways will need to be managed to ensure that the adjacent private property owners maintain access to their properties and driveways. A solution to this issue is potentially providing an offsite staging area to the contractor, one that is somewhat nearby the site where most of the required equipment and materials can be staged which can be moved to the site as needed for construction. Therefore, at the site the contractor will only require smaller stockpiles.

4. We have a tree we want protected.

We have not selected which trees have to be removed. The design phase will select which trees need to be removed. Trees within 10-15 feet of the structure will need to be removed to protect the integrity of the project.

5. We have paver patio and driveway and fence. We don't want disrupted.

The City of Newport News has related to the Norfolk District on January 19, 2021 that the paver patio, driveway, and fence that an Encroachment Agreement will need to be executed between the homeowner and the City. The City also stated that the stairway would need to be removed for the project and would be in contact with the homeowner to discuss a resolution.

6. We have stairs existing to water will those remain in-tact?

The City of Newport News related to the Norfolk District on January 19, 2021 that the City Attorney had met with the previous owner and the previous homeowner's Attorney. The City related to the Norfolk District that and extensive tile search was conducted. The City found evidence that the property line went to mean low water (MLW) along the 15-foot strip. Virginia Marine Resources Commission (VMRC) was then consulted regarding a permit for the construction of the pier that has not been built as of today.

7. We have been working on grass will this and plantings be fixed upon completion?

We would need to know where these planting are to be able to answer this question and this can be evaluated in the design phase.

8. What is \$25,000 real-estate allocation for?

This is for the Federal Administrative costs, to work with the NFS to ensure the proper Real Estate interests are acquired for the project, certify the lands available and execute the authorization for entry for construction.

9. Is it possible to start the slope further from road than 10 feet? This would maximize our property. It is our understanding that our property went out another 25 feet.

The start of the slope will be evaluated in the Engineering design. The project will be required to minimize environmental impacts.

Essentially to recap. Mainly, we don't want to give up our water rights or have a disruption to our view. If these are possible, we will be in support of project.

Thanks,

Sharon and Brent Mathison

# Woodward, Justine R CIV USARMY CENAO (USA)

From: Traver, Carrie <Traver.Carrie@epa.gov>
Sent: Monday, December 7, 2020 5:16 PM

**To:** Woodward, Justine R CIV USARMY CENAO (USA)

**Cc:** Rudnick, Barbara; Nevshehirlian, Stepan

**Subject:** [Non-DoD Source] RE: CAP 14 Emergency Streambank and Shoreline Stabilization James River,

Newport News draft Feasibility Report/Environmental Assessment

### Dear Justine,

Thank you for providing the notice that The U.S. Army Corps of Engineers, Norfolk District has prepared a draft Integrated Feasibility Report (IFR) and Environmental

Assessment (EA or Study) to evaluate the impacts associated with Section 14 Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia. The Feasibility Study is authorized by the Continuing Authorities Program (CAP), Section 14 of the Flood Control Act of 1946, as amended.

In response, the U.S. Environmental Protection Agency (EPA) is providing recommendations for your consideration in the development of the Final EA and Finding of No Significant Impact in compliance with the National Environmental Policy Act (NEPA) of 1969, the Council of Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

The Recommended Plan would stabilize the bank with a rock sill and vegetated slope. As described in the Draft Real Estate Plan, the proposed action will impact 8 parcels of land, 5 of which are privately owned. Easements from 4 parcels are needed for the bank protection work and maintenance and one may be used for the temporary work area. There are also existing and proposed private facilities (e.g. piers) that may be impacted. As described, the willingness of the property owners to work with the federal and nonfederal sponsors may affect the implementation of the project and/or cost. These property owners may also have concerns about the projects impacts or have requests to minimize impacts. For example, while it is not anticipated that trees would be replanted on the adjacent upland following construction, certain property owners may want replacement of their trees. We recommend that the final Study and Finding of No Significant Impact (FONSI) address whether there has been specific outreach to affected property owners. If outreach has not been conducted, we recommend developing an outreach plan and incorporating mitigation measures (e.g. access, noise mitigation measures, etc.) for homeowners as appropriate.

We have several additional comments, listed by section:

## 1.2 PURPOSE AND SCOPE

The stated purpose of the proposed action is to stabilize the existing shoreline along the 600-foot section of the James River and prevent future erosion resulting from the combined effects of storm surge, sea level rise, and stormwater runoff. While the erosion processes and sea level rise are described in detail, the role and specific sources of stormwater runoff did not appear to be addressed in the study. If uncontrolled stormwater is contributing to the instability, we recommend that stormwater management be discussed and incorporated into the project plans.

### 5.4 DESIGN AND CONSTRUCTION CONSIDERATIONS

Based on the information provided, we concur that additional studies, including geotechnical exploration be performed during the design phase. We also recommend reviewing the completed studies and projects (as discussed in Section 1.5) along the James River to inform the final design.

## 6.10 NOISE AND VIBRATION

While equipment and operation would vary during construction, the typical noise indicated for backhoes and loaders is 80 and 85 decibels approximately 50 feet from the source. The EA states that the homes located along River Road are approximately 60-70 feet from the project site. We recommend that the temporary noise impacts be further evaluated to support the conclusion that these impacts would be less than significant.

As the construction is in close proximity to residences, noise mitigation measures may be appropriate. We recommend working with potentially impacted homeowners to address impacts of construction noise on residents, especially children or others who may be sensitive to noise.

#### 6.11 OCCUPATIONAL HEALTH AND SAFETY

While this section focuses on occupational health, public safety considerations clearly factor into the purpose of the project. We recommend discussing the project's potential benefits and any negative effects on public safety in both the long term (project life) and short-term (construction), including how construction hazards will be addressed (e.g. fencing, signage, etc.)

### 6.15 VEGETATION, WETLANDS, AND SUBMERGED VEGETATION

We note that the EA indicates full compliance with Executive Order 13112 but does not appear to include a discussion of the project's potential to spread or reduce invasive species, including the *Phragmites australis* identified in the project area (Section 2.3.15). We recommend measures to prevent introducing or spreading invasive species during construction be added to the applicable plans.

As described in Section 4, 5.5, 6.1 and other sections, a native vegetated seed mix will be planted on the slope. We concur that planting native, noninvasive species is an important aspect of the project, as a riverbank location can further spread invasive species. However, Section 6.15 describes the likely planting plan to include nonnative warm season grasses, including Bermuda grass and zoysia. Fescue is also listed as potential vegetation; fescue can be native or nonnative, with some species invasive in Virginia. We recommend that potential native plants or seed mixes be identified.

#### 6.18 TRANSPORTATION

It is noted that portions of River Road adjacent to the project site may be temporarily closed during construction, which could affect access to residential property. We recommend stating if measures will be taken to ensure property access.

### **6.19 CUMULATIVE IMPACTS**

Section 6.19 notes that if the existing stone protection is not maintained by the private property owner, this could increase the vulnerability of the proposed rock sill to failure. We recommend clarifying if there is an agreement in place for maintenance or if it will be sought.

### 6.2 AIR QUALITY

Under the general conformity rule, reasonably foreseeable emissions associated with all operational and construction activities, both direct and indirect, should be quantified and compared to the annual de minimis levels for those pollutants in nonattainment or maintenance for that area. Section 6.2 concludes that impacts to air quality would be less than significant; however, no analysis of emissions was found in the EA. We recommend that this analysis be included in the appendices.

#### 6.6 FISHERY RESOURCES AND ESSENTIAL FISH HABITAT

As indicated, minimizing turbidity is important to minimize potential effects to resources such as Essential Fish Habitat and shellfish grounds. The EA states that Best Management Practices (BMPs) such as the use of a turbidity curtain would be implemented if feasible to reduce turbidity during construction. We suggest stating when this would be evaluated. If a turbidity curtain is not feasible, we recommend that other BMPs be identified. We also recommend identifying the monitoring that will be done to maintain all erosion and sediment control measures both during and after construction.

### **OTHER**

- As discussed in the ENGINEERING APPENDIX (Appendix C) -12.0 Preconstruction Engineering and Design (PED) Consideration, updated surveys during PED are critical to develop accurate construction plans and specifications and ensure the success of the project. Such surveys include an updated topographic and bathymetric survey, an evaluation of the current condition of the existing pier and the existing rock sill on the private property, and conditions of any additional private piers or structures that may be constructed. We recommend that Final IFR/EA list the additional surveys that will be conducted for final design.
- We note that the draft FONSI includes this statement: "Comments from state and federal agency review did not result in any changes to the final IFR/EA." While we assume that this is language from the template, we hope that all comments will be fully considered and incorporated as appropriate.
- We found Figures 2-19, 20 and 21 in Section 2.4.2 to be very helpful in illustrating the specific alternatives considered.

We appreciate your coordination with our office. I would appreciate if you would email a copy of (or link to) the Final EA when available. Please feel free to contact me if you would like to discuss this project or others.

Thank you, Carrie

#### **Carrie Traver**

Life Scientist
Office of Communities, Tribes, & Environmental Assessment
U.S. Environmental Protection Agency, Region 3
1650 Arch Street – 3RA12
Philadelphia, PA 19103
215-814-2772
traver.carrie@epa.gov

From: Woodward, Justine R CIV USARMY CENAO (USA) < Justine.R.Woodward@usace.army.mil>

Sent: Friday, November 06, 2020 2:33 PM

To: Rudnick, Barbara < Rudnick. Barbara@epa.gov>

Cc: Traver, Carrie < Traver. Carrie@epa.gov>

Subject: CAP 14 Emergency Streambank and Shoreline Stabilization James River, Newport News draft Feasibility

Report/Environmental Assessment

Hi Barbara and Carrie,

Please see the attached notification letter for the release of the CAP 14 Emergency Streambank and Shoreline Protection, James River, Newport News Draft Integrated Feasibility Report and Environmental Assessment.

You should also receive a DoD SAFE link to download the draft report files. If you have any questions, please don't hesitate to contact me. Have a great weekend!

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 Matthew J. Strickler Secretary of Natural Resources

Clyde E. Cristman

Director



Rochelle Altholz Deputy Director of Administration and Finance

Russell W. Baxter Deputy Director of Dam Safety & Floodplain Management and Soil & Water Conservation

Nathan Burrell Deputy Director of Government and Community Relations

> Thomas L. Smith Deputy Director of Operations

December 7, 2020

Justine Woodward USACE-Norfolk District 803 Front Street Norfolk, VA 23510

Re: James River Newport News Shoreline CAP 14 Emergency Streambank and Shoreline Protection

Dear Ms. Woodward:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <a href="https://vafwis.dgif.virginia.gov/fwis/">https://vafwis.dgif.virginia.gov/fwis/</a> or contact Ernie Aschenbach at 804-367-2733 or <a href="maintain.gov/fwis/">Ernie.Aschenbach@dwr.virginia.gov/fwis/</a> or contact

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Tyle Musch

Tyler Meader Natural Heritage Locality Liaison

# Samantha J. Henderson

Project Review Archaeologist
Review and Compliance Division
Virginia Department of Historic Resources
2801 Kensington Avenue | Richmond, VA 23221
(804) 482-6088 | samantha.henderson@dhr.virginia.gov

DHR is currently teleworking. Please consider contacting me via email rather than via a phone call as I am not at my desk.

## Woodward, Justine R CIV USARMY CENAO (USA)

From: Caitlin Rogers <caitlin.rogers@catawba.com>
Sent: Monday, December 14, 2020 12:21 PM

**To:** Woodward, Justine R CIV USARMY CENAO (USA)

**Subject:** [Non-DoD Source] Emergency Streambank and Shoreline Protection

Ms. Woodward,

The Catawba THPO have no concerns with this project. If you need anything else let me know. Thanks

### Caitlin

Caitlin Rogers
Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

803-328-2427 ext. 226

\*\*\* Please note that my email has changed to Caitlin.Rogers@catawba.com \*\*\*

\*Please Note: We CANNOT accept Section 106 forms via e-mail, unless requested. Please send us hard copies. Thank you for your understanding\*

#### **Disclaimer**

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and may have been automatically archived by **Mimecast Ltd**, an innovator in Software as a Service (SaaS) for business. Providing a **safer** and **more useful** place for your human generated data. Specializing in; Security, archiving and compliance. To find out more <u>Click Here</u>.

From: <u>Terry Clouthier</u>

To: Woodward, Justine R CIV USARMY CENAO (USA)

Cc: <u>Layton, Susan E CIV (USA)</u>

Subject: [Non-DoD Source] RE: CAP 14 Emergency Streambank and Shoreline Stabilization James River, Newport News

draft EA

**Date:** Monday, November 23, 2020 2:26:47 PM

Good Afternoon Ms. Woodward,

My office will not be providing comments for the draft EA. Unless an inadvertent find is made during construction, we have no objections or comments on this project. If an inadvertent find is made – please contact my office as recommended in our September 30 letter.

Feel free to email if you have any questions

Sincerely,

Terry Clouthier
Pamunkey Indian Tribe
Cultural Resource Director

From: Woodward, Justine R CIV USARMY CENAO (USA) < Justine.R. Woodward@usace.army.mil>

Sent: Friday, November 6, 2020 3:38 PM

**To:** Terry Clouthier <terry.clouthier@pamunkey.org>

**Subject:** CAP 14 Emergency Streambank and Shoreline Stabilization James River, Newport News

draft EA

Dear Mr. Clouthier,

Please see attached correspondence regarding the public release of the CAP 14 Emergency Streambank and Shoreline Protection, James River, Newport News, VA Draft Integrated Feasibility Report and Environmental Assessment. A hard copy of the letter has also be sent via certified mail.

Please don't hesitate to contact me if you have any questions.

Regards, Justine

Justine Woodward
Biologist
Environmental Analysis Section
Norfolk District, U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510
757-201-7728



# DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 9, 2020

Ms. Barbara Rudnick NEPA Program Manager Office of Communities, Tribes & Environmental Assessment 1650 Arch Street #3RA10 Philadelphia, Pennsylvania 19103-2029

Dear Ms. Rudnick:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project. Hampton Norfolk Study Area 260 390 520 130



# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 9, 2020

Ms. Christine Vaccaro
Protected Resources Division
NOAA Fisheries, Greater Atlantic Region
55 Great Republic Drive
Gloucester, MA 01930-2276

Dear Ms. Vaccaro:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 9, 2020

Mr. David O'Brien Fisheries Biologist NOAA Fisheries Service P.O. Box 1346 Gloucester Point, VA 23062-1346

Dear Mr. O'Brien:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project. Hampton Norfolk ☐ Study Area 260 390 520 130



# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

ARMY CORPS OF ENGINEEI
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 9, 2020

Ms. Allison Lay Virginia Marine Resources Commission Building 96, 380 Fenwick Rd Ft. Monroe, VA 23651-1064

Dear Ms. Lay:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project. Hampton Norfolk ☐ Study Area 130 260 390 520 Fe



### DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT

FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 9, 2020

Amy Ewing Virginia Department of Game and Inland Fisheries P.O. Box 90778 Henrico, VA 23228-0778

Dear Ms. Ewing:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** Hampton Norfolk oft Fun Cir ☐ Study Area 520 Fee 130 260 390



### DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT

FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 9, 2020

Rene Hypes Virginia Department of Conservation and Recreation Division of Natural Heritage 600 East Main Street, 24th Floor Richmond, VA 23219

Dear Ms. Hypes:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project. Hampton Norfolk Study Area 130 260 390 520



# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

ARMY CORPS OF ENGINEER NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 9, 2020

Valerie Fulcher Virginia Department of Environmental Quality Office of Environmental Impact Review P.O. Box 1105 Richmond, VA 23218-1105

Dear Ms. Fulcher:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





### DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT

FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 9, 2020

Samantha Henderson Virginia Department of Historic Resources 2801 Kensington Avenue Richmond, VA 23221-2470

Dear Ms. Henderson:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project. Hampton Norfolk ☐ Study Area 260 390 520 130



# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET

NORFOLK VA 23510-1011

April 9, 2020

Mr. Troy Andersen Supervisory Fish and Wildlife Biologist U.S. Fish and Wildlife Service 6669 Short Lane Gloucester, VA 23061- 4410

Dear Mr. Andersen:

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

Hampton Norfolk ☐ Study Area 130 260 390 520 Fe

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 

From: Fulcher, Valerie

To: Kotur Narasimhan; Carlos Martinez; Lawrence Gavan; Daniel Moore; Holly Sepety; Nicol, Craig; rr dgif-ESS

Projects; Roberta Rhur; odwreview (VDH); Michelle Henicheck; Allison Lay; Ben McFarlane; Everett Skipper

Cc: Woodward, Justine R CIV USARMY CENAO (USA)

Subject: [Non-DoD Source] NEW SCOPING REQUEST-Shoreline Stabilization, James River, City of Newport News

**Date:** Monday, April 13, 2020 2:21:20 PM

Attachments: <u>James River Stabilization - Scoping Response.pdf</u>

DEQ JRNN Shoreline Stabilization Scoping letter 20200409.pdf

Good afternoon—attached is a request for scoping comments on the following:

Shoreline Stabilization, James River, City of Newport News

If you choose to make comments, please send them directly to the project sponsor (Justine.R.Woodward@usace.army.mil < <a href="mailto:Justine.R.Woodward@usace.army.mil">mailto:Justine.R.Woodward@usace.army.mil</a>) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov < <a href="mailto:eir@deq.virginia.gov">mailto:eir@deq.virginia.gov</a>). We will coordinate a review when the environmental document is completed.

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov < mailto:eir@deq.virginia.gov > .

Valerie

--

Valerie A. Fulcher, CAP, OM, Environmental Program Specialist

Department of Environmental Quality

Environmental Enhancement - Office of Environmental Impact Review

1111 East Main Street

Richmond, VA 23219

804/698-4330 <tel:(804)%20698-4330>

804/698-4319 <tel:(804)%20698-4319> (Fax)

email: Valerie.Fulcher@deq.virginia.gov < mailto: Valerie.Fulcher@deq.virginia.gov >

Blocked http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx

For program updates and public notices please subscribe to Constant Contact: Blockedhttps://lp.constantcontact.com/su/MVcCump/EIR

From: <u>Traver, Carrie</u>

To: Woodward, Justine R CIV USARMY CENAO (USA)

Cc: Rudnick, Barbara

Subject: [Non-DoD Source] James River Shoreline Stabilization Project NEPA Scoping Notice

**Date:** Thursday, May 7, 2020 4:30:14 PM

#### Dear Justine:

The U.S. Environmental Protection Agency (EPA) received notice that U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study and preparing an Environmental Assessment (EA or Study) for a shoreline stabilization project along the north bank of the James River in the City of Newport News. The EA is being done in compliance with the National Environmental Policy Act (NEPA) of 1969, Section 309 and CEQ regulations implementing NEPA. Thank you for notifying us. We have several recommendations for your consideration in the development of the EA:

### Purpose and Need

According to the April 9, 2020 letter, an approximately 600-foot section of riverbank along the James River is severely eroded and the 25-foot high receding bluff is an imminent threat to existing public utilities (including electric, gas, communications, public water and sewer lines) and River Road. The notice and website indicate that the erosion is caused by several processes, include river flow, stormwater runoff, water level rise, and tidal, storm and wind driven wave action.

As part of the Study, we recommend that the specific sources and cause of erosion be further discussed, including if there is a dominant process or processes driving or accelerating erosion, any previous stabilization measures in the vicinity or other efforts to reduce impacts from these erosional processes, and predicted water level rise scenarios. We recommend this detailed discussion to inform the selection of potential alternatives as well as the preferred alternative.

### Alternatives

The notice indicates that several alternatives were considered, and the final array of alternatives includes: a Rock Sill with Vegetated Berm, Stone Revetment, Stone Revetment with Vegetated Berm, or a Living Shoreline, along with the no the action alternative. Generally, we recommend consideration of alternatives that will provide long-term sustainability while providing additional benefits such as habitat enhancement or water quality improvements. We also recommend that the potential for tradeoffs be thoroughly evaluated. To support your study, evaluation of other recent studies of shoreline stabilization in Virginia may be helpful.

Potential measures that address the sources of degradation and enhance long-term stability of the restoration effort may also warrant consideration in the Study (e.g. additional stormwater controls.)

### **Impacts**

Biological Resources - Wildlife, Vegetation, and Aquatic Resources

We recommend that the EA provide an assessment of the habitat resources and species present in the study area, including: fauna, such as birds, fish, shellfish, and other aquatic species; submerged aquatic vegetation (SAV); species of special concern including Atlantic Sturgeon; wetlands; tidal flats, and any other rare and/or high value resource types present in the study area.

The EA should include a discussion of positive or adverse impacts to fauna and their habitat, including disturbance, sedimentation, and noise during construction, disturbance to submerged aquatic vegetation, and contribution to or amelioration of water quality impairments. Permanent or temporary impacts for construction should be evaluated.

We suggest that the EA include consideration of minimization measures, including time of year restrictions, avoidance of potential impacts to sensitive life stages (migration, spawning, nesting, etc.) and best management practices to mitigate noise, sedimentation and other impacts.

We recommend that correspondence regarding potential impacts to state and federal threatened and endangered

species, including consultation with National Marine Fisheries Service, US Fish and Wildlife Service, and state agencies be documented in the Study.

### **Invasive Species**

As disturbance and construction may introduce or disperse invasive species, the project's potential to spread invasive species including nonnative SAV should be evaluated in the EA along with prevention or mitigation measures.

Human environment -Social, Economic, and Community Impacts

We suggest that potential temporary or permanent impacts to boating, fishing, and other recreational or commercial uses be assessed; if necessary, minimization measures should explored.

We also recommend that noise, traffic, emissions, safety, impacts on properties, and other potential impacts from construction of the project on the local community be evaluated.

#### Cultural Resources

As you are aware, Section 106 of the NHPA requires federal agencies to take into consideration the impact that the action may have on historic properties that are listed or are eligible for inclusion on the National Register of Historic Places. We recommend consultation with the State Historic Preservation Office (SHPO) throughout the planning process and that the EA identify any potential impacts to historic resources and engagement with Native American tribes to identify any potential resources of concern. We also recommend that this coordination with the SHPO and tribes be fully documented in the Study.

#### **Cumulative Effects**

As part of the cumulative effects analysis, we also recommend that the EA discuss other measures taken or planned for resiliency in the area.

We request that you provide a copy of the EA to EPA when it is available for review. Please feel free to reach out to me if you have any questions on the recommended topics above or if we are able to contribute to the analysis.

Thank you, Carrie Traver

Carrie Traver
Life Scientist
Office of Communities, Tribes, & Environmental Assessment
U.S. Environmental Protection Agency, Region 3
1650 Arch Street – 3RA10
Philadelphia, PA 19103
215-814-2772
traver.carrie@epa.gov <mailto:traver.carrie@epa.gov>

----Original Message----

From: Woodward, Justine R CIV USARMY CENAO (USA) < Justine.R.Woodward@usace.army.mil < mailto:Justine.R.Woodward@usace.army.mil > >

Sent: Thursday, April 09, 2020 11:21 AM

To: Rudnick, Barbara < Rudnick.Barbara@epa.gov < mailto: Rudnick.Barbara@epa.gov >>

Subject: James River Shoreline Stabilization Project NEPA Scoping Notice

Good Morning Ms. Rudnick,

Please see the attached NEPA scoping request for a shoreline stabilization project on north bank of the James River

in Newport News, Virginia. Please provide a read receipt since a hard copy will not be sent due to the current circumstances. If you have any questions or require any additional information, please let me know.

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 757-201-7728 From: Christine Vaccaro - NOAA Federal

To: Woodward, Justine R CIV USARMY CENAO (USA)

Subject: [Non-DoD Source] Re: James River Shoreline Stabilization Project NEPA Scoping Notice

**Date:** Wednesday, April 15, 2020 2:22:52 PM

Hi Justine,

Please see a few comments below re: this project.

The James River, in the area of your proposed study/project, supports several listed species including Atlantic sturgeon, shortnose sturgeon, and 4 species of sea turtles that may utilize the lower James River. Atlantic sturgeon spawn in the James River, and this portion of the lower river may serve as a staging area for spawning adults. No early life stages are expected to be present in the brackish conditions in the vicinity of the project site, but juveniles, sub-adults and adults may be present. Only adult shortnose sturgeon are currently expected to use the James River, and sea turtles are transient in the area. Please see our website for additional information about the life stages of species that may occur, including literature citations that may help inform your analysis.

Blockedhttps://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater

The tables and mapper will be most helpful.

Based on the alternatives you list for construction activities related to this project, several stressors may occur (which could impact listed species) and should be considered in your project design and subsequent analyses. Information about putting together a strong stressor based analysis is also provided on our website: Blockedhttps://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultation-technical-guidance-greater-atlantic

Based on the information provided, the stressors you should be most focused on are noise (from potential pile driving), turbidity, habitat modification, and vessel traffic. Although, because details of the project are not given at this time, other stressors may also apply. Additionally, because you have several alternatives for the action, if one is not decided on by the time you produce an EA, you should include all potential alternatives in your analysis and analyze all potential effects that may occur as a result of the proposed action alternatives.

We hope this information will be helpful during the development of your BA. Please do not hesitate to reach out if you have questions.

Cheers, Chris

Chris Vaccaro
Fisheries Biologist
Protected Resources Division
NOAA Fisheries, Greater Atlantic Region
Gloucester, MA

Phone: 978-281-9167

Email: christine.vaccaro@noaa.gov < mailto:christine.vaccaro@noaa.gov >

For additional ESA Section 7 information and Critical Habitat guidance, please see: Blockedwww.greateratlantic.fisheries.noaa.gov/protected/section7 <Blockedhttp://www.greateratlantic.fisheries.noaa.gov/protected/section7>

On Thu, Apr 9, 2020 at 11:19 AM Woodward, Justine R CIV USARMY CENAO (USA) <Justine.R.Woodward@usace.army.mil <mailto:Justine.R.Woodward@usace.army.mil>> wrote:

Good Morning Ms. Vaccaro,

Please see the attached NEPA scoping request for a shoreline stabilization project on north bank of the James River in Newport News. Please provide a read receipt since a hard copy will not be sent due to the current circumstances. If you have any questions or require any additional information, please let me know.

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 757-201-7728 Matthew J. Strickler Secretary of Natural Resources Marine Resources Commission 380 Fenwick Road Bldg 96 Fort Monroe, VA 23651-1064

Steven G. Bowman Commissioner

May 14, 2020

U. S. Army Corps of Engineers Attn: Justine Woodward 803 Front Street Norfolk, VA 23510

Re: Feasibility Study

James River Shoreline Stabilization Project

#### Dear Ms. Woodward:

This will respond to the request for comments regarding the feasibility study for the James River Shoreline Stabilization Project, prepared by The U.S. Army Corps of Engineers, on behalf of the City of Newport News. Specifically, the City of Newport News has proposed to stabilize approximately 600 linear feet of shoreline along River Road between North Avenue and Government Ditch along the James River in Newport News, Virginia.

We reviewed the provided project documents and found the proposed project will be within the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and may require a permit from this agency. Per Section 104.1 of Title 28.2 of the Code of Virginia, living shorelines are the preferred alternative for stabilizing shorelines in the Commonwealth. A living shoreline approach should be considered during the feasibility study. The project area has a large fetch, and a breakwater system may be appropriate to consider for stabilizing this shoreline.

A private oyster ground lease is located approximately 300 feet from the shoreline. If any impacts are proposed within the oyster ground lease, the lease holder's concerns will be taken into consideration before a permit will be issued. Additionally, there is a pier located within the project area. Any riparian property owners within the project area will need to sign the application before it is submitted to us. Additionally, adjacent property owners to the project area will be given the opportunity to comment on the project before a permit will be issued.

Please be advised that the VMRC pursuant to Chapter 12, 13, & 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. Any jurisdictional impacts will be reviewed by the VMRC during the Joint Permit Application process.

U. S. Army Corps of Engineers May 14, 2020 Page Two

If you have any questions please contact me at 757-247-2254 or by email at Allison.lay@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,

Allison Lay

Environmental Engineer, Habitat Management

Allison Lay

AEL HM Matthew J. Strickler Secretary of Natural Resources

Clyde E. Cristman Director



Rochelle Altholz Deputy Director of Administration and Finance

Russell W. Baxter
Deputy Director of
Dam Safety & Floodplain
Management and Soil & Water
Conservation

Thomas L. Smith Deputy Director of Operations

May 8, 2020

Justin Woodward USACE-Norfolk District 803 Front Street Norfolk, VA 23510

Re: James River Shoreline Stabilization NEPA Scoping Request

Dear Ms. Woodward:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <a href="http://vafwis.org/fwis/">http://vafwis.org/fwis/</a> or contact Ernie Aschenbach at 804-367-2733 or <a href="maintain.english">Ernie.Aschenbach@dgif.virginia.gov</a>.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Tyle Musch

Tyler Meader Natural Heritage Locality Liaison



#### Commonwealth of Virginia

#### VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482
www.deq.virginia.gov

Matthew J. Strickler Secretary of Natural Resources David K. Paylor Director (804) 698-4000

#### **MEMORANDUM**

**TO**: Justine Woodward, U.S. Army Corps of Engineers

CC: DEQ Office of Environmental Impact Review, eir@deq.virginia.gov

**FROM**: Amber Foster, DEQ Principal Environmental Planner

**DATE**: April 16, 2020

**SUBJECT:** Scoping Request: Shoreline Stabilization, James River, City of Newport News

We have reviewed the scoping request submittal for the proposed project and offer the following comments regarding consistency with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations):

In the City of Newport News, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMA lands in Newport News include floodplains, highly erodible soils and all lands adjacent to and 100 feet landward of the RPA. The City of Newport News also designated Intensely Developed Areas (IDAs) as redevelopment areas of the City, which incorporates both the RPA and RMA.

The U.S. Army Corps of Engineers (USACE) Norfolk District and the City of Newport News are conducting a feasibility study to stabilize 600 linear feet of shoreline along the north bank of the James River located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road in the City of Newport News. The USACE is the lead federal agency and the City of Newport News is the non-federal sponsor for the study.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures that include rock sill with vegetated berm, stone revetment, stone revetment with vegetated berm, and living shoreline (stone toe and/or rock sill, vegetative erosion control, earthen berm).

Under the Federal Consistency Regulations of the Coastal Zone Management Act of 1972, federal actions in Virginia must be conducted in a manner "consistent to the maximum extent practicable" with the enforceable policies of the Virginia Coastal Zone Management Program. Those enforceable policies are administered through the Chesapeake Bay Preservation Act and Regulations. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated RPAs and RMAs, as provided in §9VAC25-830-130 and 140 of the Regulations. This includes the development of a water quality impact analysis (WQIA) for encroachment or impacts to the RPA, the minimization of land disturbance (including area of access and material staging), retaining existing vegetation, and minimizing impervious cover. In addition, Federal actions are also required to be consistent with the requirements of the Virginia Erosion and Sediment Control Handbook and stormwater management criteria consistent with water quality protection provisions of the Virginia Stormwater Management Regulations."

Provided adherence to the above requirements, particularly as it relates to the requirements to minimize land disturbance, retain existing vegetation and minimize impervious cover, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and Regulations.

From: Warren, Arlene

To: Woodward, Justine R CIV USARMY CENAO (USA)

Cc: rr Environmental Impact Review

Subject: [Non-DoD Source] Re: NEW SCOPING REQUEST-Shoreline Stabilization, James River, City of Newport News

**Date:** Tuesday, April 14, 2020 9:31:41 AM

Project Name: NEW SCOPING REQUEST-Shoreline Stabilization

Project #: N/A

UPC #: N/A

Location: James River, City of Newport News

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to public drinking water sources (groundwater wells, springs and surface water intakes). Potential impacts on public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

There are no public groundwater wells within a 1-mile radius of the project site.

There are no surface water intakes located within a 5-mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts on public drinking water sources due to this project.

Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

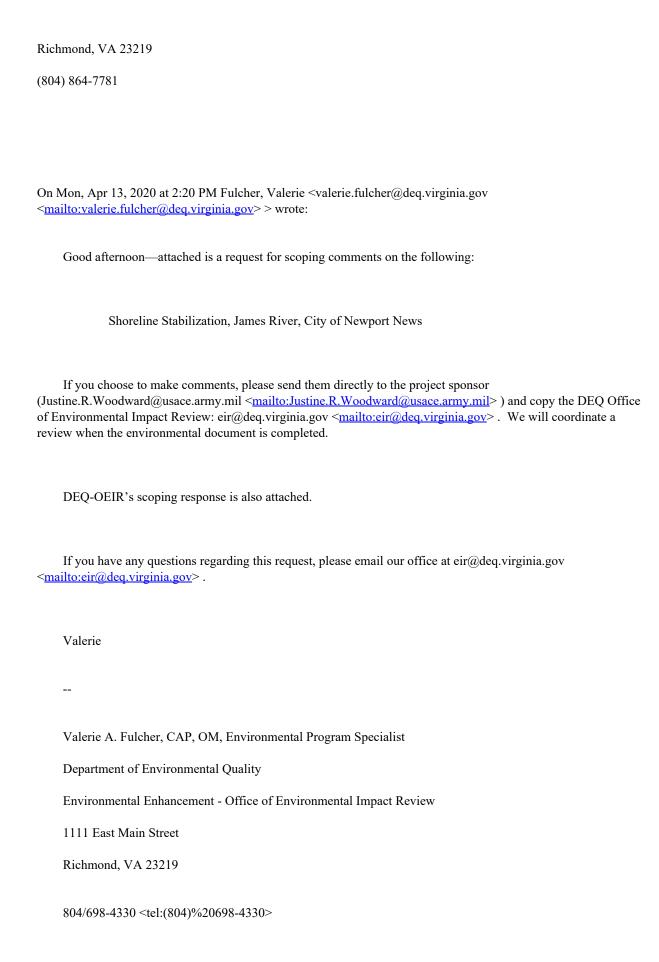
Arlene Fields Warren

GIS Program Support Technician

Office of Drinking Water

Virginia Department of Health

109 Governor Street



804/698-4319 <tel:(804)%20698-4319> (Fax)

email: Valerie.Fulcher@deq.virginia.gov < mailto: Valerie.Fulcher@deq.virginia.gov >

Blockedhttp://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx

For program updates and public notices please subscribe to Constant Contact: Blockedhttps://lp.constantcontact.com/su/MVcCump/EIR



## US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 8, 2020

Brent and Sharon Mathison 9304 River Rd Newport News, VA 23601-4519

Dear Mr. and Mrs. Mathison:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project.





## DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 8, 2020

Eric and Katherine Feldl 9306 River Rd Newport News, VA 23601-4519

Dear Mr. and Mrs. Feldl:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

ARMY CORPS OF ENGINEER NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 8, 2020

Christopher Ellis and Denise Gillman 9400 River Rd Newport News, VA 23601-4519

Dear Mr. Ellis and Ms. Gillman:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 8, 2020

Ralph and Carole Robinson 9406 River Rd Newport News, VA 23601-4519

Dear Mr. and Mrs. Robinson:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





### DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 8, 2020

John Newell 9408 River Rd Newport News, VA 23601-4519

Dear Mr. Newell:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project.





## DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 8, 2020

Dana Leaphart 9410 River Rd Newport News, VA 23601-4519

Dear Ms. Leaphart:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

April 8, 2020

Ryan Sykes 9412 River Rd Newport News, VA 23601-4519

Dear Mr. Sykes:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

Enclosure 1. Study Area for James River Shoreline Stabilization Project.





# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET

NORFOLK VA 23510-1011

April 8, 2020

Donald and Sandra Britt P.O. Box 1171 Newport News, VA 23601-4519

Dear Mr. and Mrs. Britt:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK

803 FRONT STREET NORFOLK VA 23510-1011

April 8, 2020

Joy Tomlin P.O. Box 1171 Newport News, VA 23601-4519

Dear Ms. Tomlin:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

Enclosure 1

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





# DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET

NORFOLK VA 23510-1011

April 8, 2020

John and Ann Pizzano 9506 River Road Newport News, VA 23601-4519

Dear Mr. and Mrs. Pizzano:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

To submit scoping comments, please contact: Justine Woodward by email: justine.r.woodward@usace.army.mil; or telephone: (757) 201-7728. Please submit comments by May 11, 2020.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section Planning and Policy Branch

Justine Woodward

Enclosure 1

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 8, 2020

Princeton Investors LLC 9508 River Road Newport News, VA 23601-4519

Dear Sir or Madam:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

To submit scoping comments, please contact: Justine Woodward by email: justine.r.woodward@usace.army.mil; or telephone: (757) 201-7728. Please submit comments by May 11, 2020.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section

Planning and Policy Branch

Justine Woodward

Enclosure 1

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





## DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

April 8, 2020

Vo Chinh and Thao Khau 9605 River Rd Newport News, VA 23601-4519

Dear Sir or Madam:

The U.S. Army Corps of Engineers Norfolk (USACE) District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News (Enclosure 1). The USACE is the lead federal agency and the City of Newport News is the nonfederal sponsor for the study.

The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.

The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 – 1508).

The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs.

To submit scoping comments, please contact: Justine Woodward by email: justine.r.woodward@usace.army.mil; or telephone: (757) 201-7728. Please submit comments by May 11, 2020.

Sincerely,

Justine Woodward

Biologist, Environmental Analysis Section

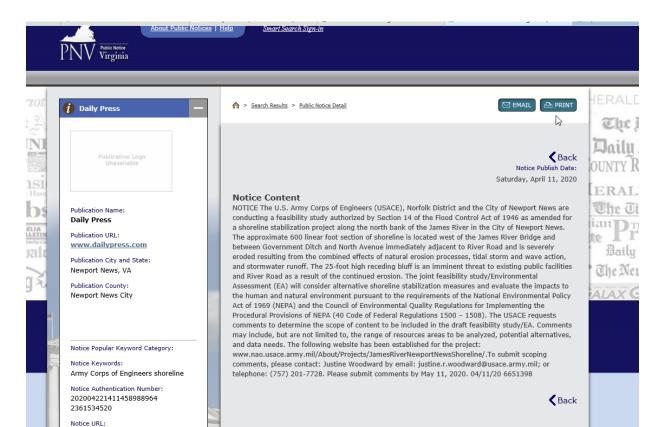
Planning and Policy Branch

Justins Woodward

Enclosure 1

**Enclosure 1. Study Area for James River Shoreline Stabilization Project.** 





**Daily Press** 

Publication Logo Unavailable

**Publication Name: Daily Press** 

Publication URL: www.dailypress.com

Publication City and State: Newport News, VA

**Publication County: Newport News City** 

Notice Popular Keyword Category:

Notice Keywords:

**Army Corps of Engineers shoreline** 

Notice Authentication Number: 202004221412112963154 2361534520

Notice URL:

Back

Notice Publish Date: Saturday, April 11, 2020

#### **Notice Content**

NOTICE The U.S. Army Corps of Engineers (USACE), Norfolk District and the City of Newport News are conducting a feasibility study authorized by Section 14 of the Flood Control Act of 1946 as amended for a shoreline stabilization project along the north bank of the James River in the City of Newport News. The approximate 600 linear foot section of shoreline is located west of the James River Bridge and between Government Ditch and North Avenue immediately adjacent to River Road and is severely eroded resulting from the combined effects of natural erosion processes, tidal storm and wave action, and stormwater runoff. The 25-foot high receding bluff is an imminent threat to existing public facilities and River Road as a result of the continued erosion. The joint feasibility study/Environmental Assessment (EA) will consider alternative shoreline stabilization measures and evaluate the impacts to the human and natural environment pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) and the Council of Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations 1500 - 1508). The USACE requests comments to determine the scope of content to be included in the draft feasibility study/EA. Comments may include, but are not limited to, the range of resources areas to be analyzed, potential alternatives, and data needs. The following website has been established for the project: www.nao.usace.army.mil/About/Projects/JamesRiverNewportNewsShoreline/.To submit scoping comments, please contact: Justine Woodward by email: justine.r.woodward@usace.army.mil; or telephone: (757) 201-7728. Please submit comments by May 11, 2020. 04/11/20 6651398

**Back** 

From: <u>Eric Feldl</u>

To: Woodward, Justine R CIV USARMY CENAO (USA)

Cc: <u>katy feldl</u>

Subject: [Non-DoD Source] Re: James River Newport News Shoreline CAP 14 at 9306 River Rd

**Date:** Thursday, April 16, 2020 6:45:16 PM

Thanks Justine

Eric

On Thursday, April 16, 2020, 5:17:07 PM EDT, Woodward, Justine R CIV USARMY CENAO (USA) <justine.r.woodward@usace.army.mil> wrote:

Good Afternoon Mr. Feldl,

Thank you for your inquiry. As part of the study we are in the scoping phase which involves requesting comments from the public and federal and state resource agencies. We are fully aware that the viewshed is important to the residents along River Road and that has been taken into consideration as part of the study. The alternatives may possibly consider vegetation at the top of the bank to assist with reducing stormwater runoff; however the type of vegetation at this time is unknown. We will be developing a planting plan that will be incorporated into the draft EA to be released this summer for public review and comment. Notification will be provided to the public, including adjacent residents, and we will also make the information available on the website.

Once again, thank you for the information you have provided and for your inquiry.

Regards,

Justine

Justine Woodward

**Biologist** 

Environmental Analysis Section

Norfolk District, U.S. Army Corps of Engineers

803 Front Street

Norfolk, VA 23510

757-201-7728

----Original Message-----

From: Eric Feldl [mailto:ekfeldl@yahoo.com <mailto:ekfeldl@yahoo.com>]

Sent: Sunday, April 12, 2020 4:21 PM To: Woodward, Justine R CIV USARMY CENAO (USA) < Justine.R. Woodward@usace.army.mil <mailto:Justine.R.Woodward@usace.army.mil>> Cc: katy feldl <kfeldl@yahoo.com <<u>mailto:kfeldl@yahoo.com</u>>> Subject: [Non-DoD Source] re: James River Newport News Shoreline CAP 14 at 9306 River Rd Justine, We received your letter regarding the above project and have some questions. I have reviewed the website and final array of alternatives A1, A2, A3, and A4 you provided. Our water view is very important to us and is the reason we purchased our house. For A1, A2, A4: I'm assuming that a "berm" would be raised vegetation or earth above the current ground level. Is that correct? If so, how high would those be? We are not fans of the shrubs that are located at the top of the shoreline of the Huntington Beach Park because they obstruct the view from the field to the water. For A2 Stone Revetment I'm assuming that this would be stone "riprap" placed on the hill and that this option would not impede our view. Is that correct? We have riparian rights on our property. It's important to us that we are able to maintain our current unobstructed water view. This is our primary concern. We also intend to file a permit for stairs at the waterfront with a deck and/or boat dock in the future. We would prefer a solution that doesn't prohibit that. Any clarification and details you can provide about the options listed would be greatly appreciated.

Thanks

Eric

(757) 329-2076

# APPENDIX A-6 ESSENTIAL FISH HABITAT ASSESSMENT NATIONAL MARINE FISHERIES SERVICE

# CONTINUING AUTHORITIES PROGRAM, SECTION 14

# EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS



#### EFH ASSESSMENT WORKSHEET

# **General Project Information** Date Submitted: Project/Application Number: Project Name: Project Sponsor/Applicant: Federal Action Agency (if state agency acting as delegated): Fast-41 or One Federal Decision Project: Yes No Action Agency Contact Name: Contact Phone: Contact Email: Longitude: Latitude: Address, City/Town, State: Body of Water: Project Purpose: Project Description:

Anticipated Duration of In-Water Work or Start/End Dates:

#### **Habitat Description**

EFH includes the biological, chemical, and physical components of the habitat. This includes the substrate and associated biological resources (e.g., benthic organisms, submerged aquatic vegetation, shellfish beds, salt marsh wetlands), the water column, and prey species.

Is the project in designated EFH<sup>2</sup>? Yes No

Is the project in designated HAPC<sup>2</sup>? Yes No

Is this coordination under FWCA only? Yes No

Total area of impact to EFH (indicate sq ft or acres):

Total area of impact to HAPC (indicate sq ft or acres):

Current water depths: Salinity: Water temperature range:

Sediment characteristics<sup>3</sup>:

What habitat types are in or adjacent to the project area and will they be permanently impacted? Select all that apply. Indicate if impacts will be temporary, if site will be restored, or if permanent conversion of habitat will occur. A project may occur in overlapping habitat types.

| Habitat Typ              | e Total impact (sq ft/acres) | Impacts are temporary | Restored to pre-existing conditions | Permanent<br>conversion of all<br>or part of habitat |
|--------------------------|------------------------------|-----------------------|-------------------------------------|--|
| Marine                   |                              |                       |                                     |  |
| Estuarine                |                              |                       |                                     |  |
| Riverine (tida           | al)                          |                       |                                     |  |
| Riverine (nor            | ı-tidal)                     |                       |                                     |  |
| Intertidal               |                              |                       |                                     |  |
| Subtidal                 |                              |                       |                                     |  |
| Water column             | n                            |                       |                                     |  |
| Salt marsh/ V<br>(tidal) | Vetland                      |                       |                                     |  |
| Wetland (non             | ı-tidal)                     |                       |                                     |  |

 $<sup>^2</sup>$  Use the tables on pages 7-9 to list species with designated EFH or the type of designated HAPC present.

<sup>3</sup> The level of detail is dependent on your project – e.g., a grain size analysis may be necessary for dredging.

| Habitat Type   | Total<br>impact (sq<br>ft/acres) | Impacts are temporary | Restored to pre-existing conditions | Permanent conversion of all or part of habitat |
|--|----------------------------------|-----------------------|-------------------------------------|--|
| Rocky/hard bottom <sup>4</sup> :                                       |                                  |                       |                                     |  |
| Sand   |                                  |                       |                                     |  |
| Shellfish beds or oyster reefs   |                                  |                       |                                     |  |
| Mudflats   |                                  |                       |                                     |  |
| Submerged aquatic vegetation (SAV) <sup>5</sup> , macroalgae, epifauna |                                  |                       |                                     |  |
| Diadromous fish<br>(migratory or<br>spawning habitat)                  |                                  |                       |                                     |  |

 $Indicate\ type(s)\ of\ rocky/hard\ bottom\ habitat\ (pebble,\ cobble,\ boulder,\ bedrock\ outcrop/ledge)$  and species of SAV:

### **Project Effects**

| Select all that apply | Project Type/Category  |
|-----------------------|--|
|                       | Hatchery or Aquaculture  |
|                       | Agriculture  |
|                       | Forestry   |
|                       | Military (e.g., acoustic testing, training exercises)  |
|                       | Mining (e.g., sand, gravel)  |
|                       | Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, beach renourishment, mitigation bank/ILF creation) |

<sup>&</sup>lt;sup>4</sup> Indicate type(s). The type(s) of rocky habitat will help you determine if the area is cod HAPC. <sup>5</sup> Indicate species. Provide a copy of the SAV report and survey conducted at the site, if applicable.

| Select all that apply | Project Type/Category  |
|-----------------------|--|
|                       | Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port) |
|                       | Energy development/use   |
|                       | Water quality (e.g., TMDL, wastewater, sediment remediation)                             |
|                       | Dredging/excavation and disposal   |
|                       | Piers, ramps, floats, and other structures   |
|                       | Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead)       |
|                       | Survey (e.g., geotechnical, geophysical, habitat, fisheries)                             |
|                       | Other  |

| Select<br>all that<br>apply | Potential Stressors Caused by the Activity      | Select all that apply and if temporary or permanent |      | Habitat alterations caused by the activity |
|-----------------------------|---|---|------|--|
|                             | Underwater noise                                | Temp  | Perm |  |
|                             | Water quality/turbidity/<br>contaminant release |   |      | Water depth change                         |
|                             | Vessel traffic/barge grounding                  |   |      | Tidal flow change                          |
|                             | Impingement/entrainment <sup>6</sup>            |   |      | Fill                                       |
|                             | Prevent fish passage/spawning                   |   |      | Habitat type conversion                    |
|                             | Benthic community disturbance                   |   |      | Other:                                     |
|                             | Impacts to prey species                         |   |      | Other:                                     |

\_

<sup>&</sup>lt;sup>6</sup> Entrainment is the voluntary or involuntary movement of aquatic organisms from a water body into a surface diversion or through, under, or around screens and results in the loss of the organisms from the population. Impingement is the involuntary contact and entrapment of aquatic organisms on the surface of intake screens caused when the approach velocity exceeds the swimming capability of the organism.

| Details: project impacts and mitigation  |              |          |
|--|--------------|----------|
| The level of detail that you provide should be associated with the proposed project. Attach s    |              | _        |
| Describe how the project would impact each of temporary and permanent impact descriptions        | * ±          |          |
|  |              |          |
| What specific measures will be used to avoid it controls, acoustic controls, and time of year re |              | •        |
| What specific measures will be used to minim   | ize impacts? |          |
| Is compensatory mitigation proposed?   | Yes          | No       |
| If no, why not? If yes, describe plans for mitig Include a conceptual compensatory mitigation    |              | <u> </u> |
|  |              |          |

| Fede | Federal Action Agency's EFH determination (select one)  |  |  |  |  |  |  |
|------|---|--|--|--|--|--|--|
|      | There is no adverse effect <sup>7</sup> on EFH or EFH is not designated at the project site.  EFH Consultation is not required. This is a FWCA-only request.  |  |  |  |  |  |  |
|      | The adverse effect <sup>7</sup> on EFH is not substantial. This means that the adverse effects are no more than minimal, temporary, or can be alleviated with minor project modifications or conservation recommendations.  |  |  |  |  |  |  |
|      | This is a request for an abbreviated EFH consultation.  |  |  |  |  |  |  |
|      | The adverse effect <sup>7</sup> on EFH is substantial.  This is a request for an expanded EFH consultation. We will provide more detailed information, including an alternatives analysis and NEPA document, if applicable. |  |  |  |  |  |  |

#### EFH and HAPC designations<sup>8</sup>

Use the <u>EFH mapper</u> to determine if EFH may be present in the project area and enter all species and lifestages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present. We recommend this for larger projects to help you determine what your impacts are.

| Species | EFH is       | Habitat        |                  |                                       |   |
|---------|--------------|----------------|------------------|---------------------------------------|---|
|         | EFH:<br>eggs | EFH:<br>larvae | EFH:<br>juvenile | EFH:<br>adults/<br>spawning<br>adults | present<br>based on text<br>description<br>(optional) |
|         |              |                |                  |                                       |   |
|         |              |                |                  |                                       |   |
|         |              |                |                  |                                       |   |
|         |              |                |                  |                                       |   |

<sup>&</sup>lt;sup>7</sup> An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

<sup>&</sup>lt;sup>8</sup> Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries.

| Species | EFH is designated/mapped for: |                |                  |                                       |  |  |
|---------|-------------------------------|----------------|------------------|---------------------------------------|--|--|
|         | EFH:<br>eggs                  | EFH:<br>larvae | EFH:<br>juvenile | EFH:<br>adults/<br>spawning<br>adults | Habitat<br>present<br>based on text<br>description<br>(optional) |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |
|         |                               |                |                  |                                       |  |  |

**HAPCs** 

Select all that are in your action area.

| Summer flounder: SAV <sup>9</sup>                    | Alvin & Atlantis Canyons                    |
|--|---|
| Sandbar shark  | Baltimore Canyon                            |
| Sand Tiger Shark (Delaware Bay)                      | Bear Seamount                               |
| Sand Tiger Shark (Plymouth-Duxbury-<br>Kingston Bay) | Heezen Canyon                               |
| Inshore 20m Juvenile Cod                             | Hudson Canyon                               |
| Great South Channel Juvenile Cod                     | Hydrographer Canyon                         |
| Northern Edge Juvenile Cod                           | Jeffreys & Stellwagen                       |
| Lydonia Canyon                                       | Lydonia, Gilbert & Oceanographer<br>Canyons |
| Norfolk Canyon (Mid-Atlantic)                        | Norfolk Canyon (New England)                |
| Oceanographer Canyon                                 | Retriever Seamount                          |
| Veatch Canyon (Mid-Atlantic)                         | Toms, Middle Toms & Hendrickson<br>Canyons  |
| Veatch Canyon (New England)                          | Washington Canyon                           |
| Cashes Ledge   | Wilmington Canyon                           |

\_

<sup>&</sup>lt;sup>9</sup> Summer flounder HAPC is defined as all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH. In locations where native species have been eliminated from an area, then exotic species are included. Use local information to determine the locations of HAPC.

# What specific measures will be used to avoid impacts, including project design, turbidity controls, acoustic controls, and time of year restrictions? If impacts cannot be avoided, why not?

The project has been designed to minimize subaqueous impacts to the extent practicable. Given the existing site conditions, including the approximate 25-foot receding bluff, the current bank requires a combination of fill and grading to achieve the desired 1V:3H slope. The exact siting of the sill will not be finalized until the Preconstruction, Engineering, and Design Phase; however, based on the current 10% design-level drawings, a maximum encroachment of 10 feet channelward of mean low water is anticipated.

There are no pile driving activities associated with the proposed action; therefore, no acoustic controls are proposed. The width of the James River at the project site is approximately 4.6 miles, and given the shallow depths of water which range from approximately 1-2 feet at mlw, no time of year restrictions are currently proposed.

The proposed project has the potential to temporarily displace federally managed fish species with EFH designations and their prey which are likely to utilize the nearshore environment where the project is proposed. However, once ambient conditions are restored following construction completion they would be expected to return.

#### What specific measures will be used to minimize impacts?

During construction, a turbidity curtain would be used if determined feasible at the site to minimize turbidity impacts during construction. Silt fences and construction matting may also be used in areas near the road at the top of the slope if necessary. Ambient conditions would be restored following construction completion.

Is compensatory mitigation proposed? If not, why not? IF yes, describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation and monitoring plan, if applicable.

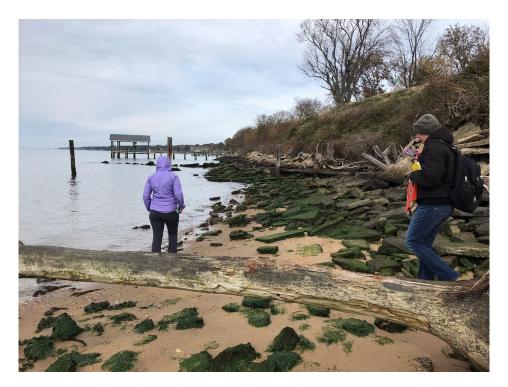
There is no compensatory mitigation proposed. There are no vegetated wetlands or Submerged Aquatic Vegetation (SAV) in the vicinity of the project site. The placement of Class III riprap stone would occur in intertidal and subtidal areas on top of the existing sandy substrate. The project designs are currently at a 10%; and the exact siting of the sill would be determined during the next phase of the project, the Preconstruction, Engineering, and Design (PED) Phase. At the southern extent of the project site, there are existing shellfish resources, including the Eastern oyster (*Crassostrea virginica*), and Atlantic ribbed mussels (*Geukensia demissa*) established on the existing concrete debris. The debris would be removed if determined to be within the footprint of the project during the PED Phase. The presence of the oysters in the area suggests that the stone material is likely to provide suitable habitat for oyster settlement in the future.



View of James River at northern extent of project site. Image taken 12/06/2019.



View looking towards southeast of project site. Image taken 12/06/2019.



Existing debris along James River shoreline. Image taken 12/06/2019.

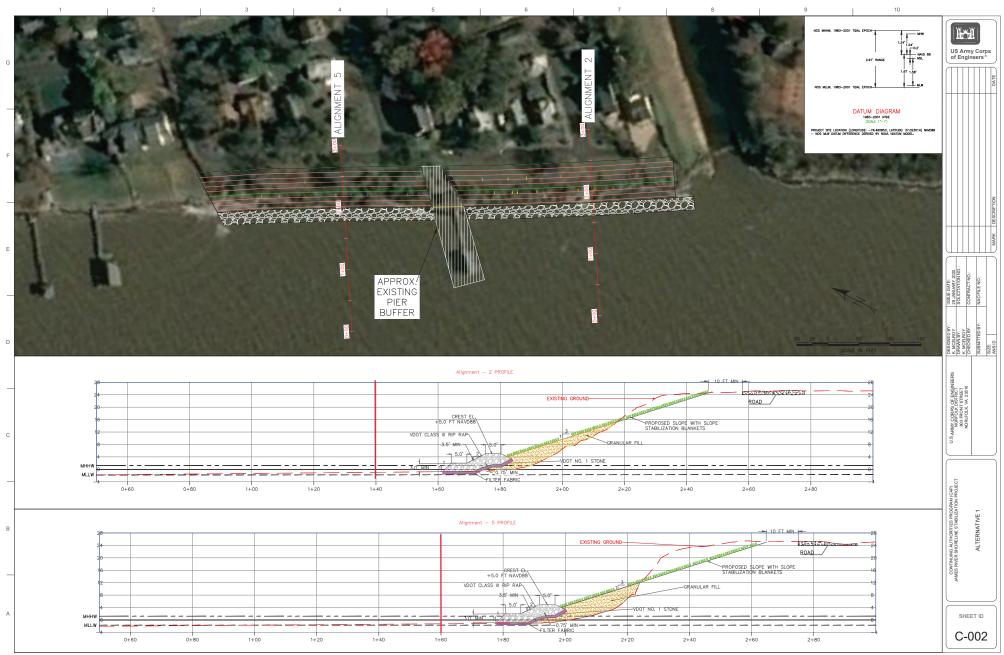


Eastern oyster and Atlantic ribbed mussels observed during low tide.

Image taken 12/06/2019.



View of southeastern extent of project site. Image taken 12/06/2019.



6/22/2020 title

**EFH Data Notice:** Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional Fishery Management Councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Greater Atlantic Regional Office Atlantic Highly Migratory Species Management Division

#### **Query Results**

Degrees, Minutes, Seconds: Latitude = 37°1'13" N, Longitude = 77°32'24" W Decimal Degrees: Latitude = 37.02, Longitude = -76.46

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

### \*\*\* W A R N I N G \*\*\*

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

#### **EFH**

| Show      | Link | Data<br>Caveats | Species/Management<br>Unit | Lifestage(s) Found at Location | Management<br>Council | FMP  |
|-----------|------|-----------------|----------------------------|--------------------------------|-----------------------|--|
|           | Ų    | •               | Little Skate               | Adult                          | New England           | Amendment 2 to the Northeast Skate Complex FMP             |
| <b>\S</b> | Į.   | •               | Atlantic Herring           | Juvenile<br>Adult              | New England           | Amendment<br>3 to the<br>Atlantic<br>Herring FMP           |
|           | Į.   | <b>②</b>        | Red Hake                   | Adult<br>Eggs/Larvae/Juvenile  | New England           | Amendment<br>14 to the<br>Northeast<br>Multispecies<br>FMP |
|           | Ų    | •               | Winter Skate               | Adult                          | New England           | Amendment 2 to the Northeast Skate Complex FMP             |

6/22/2020 title

| 0/22/2020  |          |                 |                            | uue                            |                       |   |
|--|----------|-----------------|----------------------------|--------------------------------|-----------------------|---|
| Show   | Link     | Data<br>Caveats | Species/Management<br>Unit | Lifestage(s) Found at Location | Management<br>Council | FMP   |
| <b>&gt;</b>  | <u> </u> | •               | Clearnose Skate            | Adult<br>Juvenile              | New England           | Amendment<br>2 to the<br>Northeast<br>Skate<br>Complex<br>FMP     |
| <b>\( \)</b>   | Ļ        | <b>(</b>        | Windowpane Flounder        | Juvenile                       | New England           | Amendment<br>14 to the<br>Northeast<br>Multispecies<br>FMP        |
| <b>&gt;</b>  | <u> </u> | •               | Sandbar Shark              | Juvenile<br>Neonate            | Secretarial           | Amendment<br>10 to the<br>2006<br>Consolidated<br>HMS FMP:<br>EFH |
| <b>&gt;</b>  | Ļ        | •               | Sand Tiger Shark           | Adult                          | Secretarial           | Amendment<br>10 to the<br>2006<br>Consolidated<br>HMS FMP:<br>EFH |
| 5  |          | •               | Bluefish                   | Adult<br>Juvenile              | Mid-Atlantic          | Bluefish  |
| <b>\(\beta\)</b>   | P        | •               | Atlantic Butterfish        | Adult<br>Juvenile              | Mid-Atlantic          | Atlantic<br>Mackerel,<br>Squid,&<br>Butterfish<br>Amendment<br>11 |
| <b>\(\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\</b> | <u>"</u> | •               | Summer Flounder            | Larvae<br>Juvenile<br>Adult    | Mid-Atlantic          | Summer<br>Flounder,<br>Scup, Black<br>Sea Bass                    |
| <b>\( \)</b>   | <u>"</u> | •               | Black Sea Bass             | Juvenile<br>Adult              | Mid-Atlantic          | Summer<br>Flounder,<br>Scup, Black<br>Sea Bass                    |

### **HAPCs**

| Show | Link | <b>Data Caveats</b> | HAPC Name       | <b>Management Council</b> |
|------|------|---------------------|-----------------|---------------------------|
|      |      | •                   | Summer Flounder | MAFMC                     |

### **EFH Areas Protected from Fishing**

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

6/22/2020 title

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. \*\*For links to all EFH text descriptions see the complete data inventory: open data inventory -->

Mid-Atlantic Council HAPCs,

No spatial data for summer flounder SAV HAPC.

From: <u>David OBrien - NOAA Federal</u>

To: Woodward, Justine R CIV USARMY CENAO (USA)

Subject: [Non-DoD Source] NAO District, James River Shoreline Stabilization, Newport News, VA

**Date:** Tuesday, September 29, 2020 4:32:20 PM

Hello Justine,

I am doing well and hope that you are too.

I have reviewed the coordination materials you sent regarding the proposed James River shoreline stabilization project, located along the James River in the City of Newport News, Virginia. As you know, the James River is designated as essential fish habitat (EFH) for 12 federally managed species and is also designated an anadromous fish use area by the Virginia Department of Wildlife Resources (DWR). Numerous species of anadromous fish use the lower James River as a migration corridor to upriver spawning areas.

The proposed shoreline stabilization project will address approximately 600 ln. ft. of eroding shoreline and approximately 25 ft. high bank located along River Rd., between North Avenue downriver to the drainage ditch located immediately upriver of Lake Biggins. At this early phase of the design (10%), you have stated the Class III armor revetment is anticipated to extend no more than 10 ft. channelward of mean low water, which would result in impacts to approximately. 20,445 sq. ft. of nonvegetated intertidal and 6,000 sq. ft. of subaqueous bottom habitat, both designated as EFH.

We acknowledge that efforts to minimize impacts to the marine environment while protecting the City's threatened infrastructure will likely require some habitat conversion and trade-offs. However, in order to minimize impacts to the extent practicable, we recommend aligning the toe of the revetment as far landward as possible to achieve the desired 3:1 slope of the graded bank and 10 ft. minimum buffer width between the top of bank and River Road. We support the proposed use of a turbidity curtain to the extent practicable to contain resuspended sediment and sediment runoff during construction. In addition, we recommend maintaining all erosion and sediment control measures throughout construction and beyond, including installation of a silt fence at the toe of the graded bank, until native vegetation can be established on the graded bank to prevent sediment from entering the river. Also, salvaging existing concrete rubble currently supporting oysters (Crassostrea virginica) and ribbed mussels (Geukensia demissa) to be incorporated into the structure as a veneer layer at the toe would be desirable from a habitat perspective.

Provided our recommendations above are adopted into the final design, NOAA Fisheries Service concurs with your determination that although impacts and habitat conversion resulting from the proposed 600 ft. shoreline stabilization project will occur, the impacts will not substantially adversely affect essential fish habitat (EFH). We are of the opinion that given the scope of the construction, limited channelwood encroachment (10 ft.) relative to the width of the James River (4.3 miles) at the project site, a time of year restriction to help protect the migration of anadromous fish is not warranted. However, if channelward encroachment or impacts to EFH increase during the

Preconstruction, Engineering and Design (PED) Phase, we ask that you reinitiate EFH consultation with my office. Also, I would appreciate notification when the draft feasibility report/EA is made available in early October.

Please note this EFH determination does not address threatened and endangered species under the purview of NOAA Fisheries Service. We understand you are coordinating with our Protected Resources Division regarding federally listed sea turtles, shortnose and Atlantic sturgeon known to the project area.

Thank you for the opportunity to comment on this project. Please feel free to contact me if you have any questions.

Take care and stay well, Dave

David L. O'Brien
Fisheries Biologist
NOAA Fisheries Service
P.O. Box 1346
1370 Greate Rd.
Gloucester Point, VA 23062
804-684-7828
david.l.obrien@noaa.gov <mailto:david.l.obrien@noaa.gov>

NOTICE: I am teleworking until further notice. I will be checking my phone messages regularly and will return calls as quickly as possible. Please stay well.

On Fri, Sep 18, 2020 at 12:31 PM Woodward, Justine R CIV USARMY CENAO (USA) <Justine.R.Woodward@usace.army.mil</pre>> wrote:

Good Afternoon Dave,

I hope you are doing well! Please see the attached EFH Assessment worksheet for a proposed shoreline stabilization project along the James River in Newport News. I am also coordinating with the Protected Resources Division for Atlantic and shortnose sturgeon and four species of sea turtles. Please note, we are currently preparing to release the draft feasibility report/EA in early October to the public.

If you require any additional information necessary to support the EFH consultation, please let me know. If you have any other questions or concerns, please don't hesitate to contact me. I look forward to hearing from you.

Have a good weekend!

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 From: Woodward, Justine R CIV USARMY CENAO (USA)

To: "David OBrien - NOAA Federal"

Subject: RE: [Non-DoD Source] NAO District, James River Shoreline Stabilization, Newport News, VA

**Date:** Friday, October 2, 2020 11:56:00 AM

Dave,

If any project changes occur during the Design phase that would result in additional impacts to EFH, we will certainly coordinate with you. Thank you!

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 757-201-7728

----Original Message-----

From: David OBrien - NOAA Federal [mailto:david.l.obrien@noaa.gov]

Sent: Friday, October 2, 2020 10:59 AM

To: Woodward, Justine R CIV USARMY CENAO (USA) < Justine.R. Woodward@usace.army.mil> Subject: Re: [Non-DoD Source] NAO District, James River Shoreline Stabilization, Newport News, VA

Hi Justine,

Thanks for getting back to me with your response.

Again, please let me know if project changes during the PED phase would result in additional impacts to EFH.

Best regards,

Dave

David L. O'Brien
Fisheries Biologist
NOAA Fisheries Service
P.O. Box 1346
1370 Greate Rd.
Gloucester Point, VA 23062
804-684-7828
david.l.obrien@noaa.gov <mailto:david.l.obrien@noaa.gov>

NOTICE: I am teleworking until further notice. I will be checking my phone messages regularly and will return calls as quickly as possible. Please stay well.

On Thu, Oct 1, 2020 at 4:42 PM Woodward, Justine R CIV USARMY CENAO (USA) <Justine.R.Woodward@usace.army.mil <mailto:Justine.R.Woodward@usace.army.mil>> wrote:

Good Afternoon Dave,

Thank you for your comments regarding this proposed project After some additional coordination with our engineers, we offer the following comments in response:

The City determined the requirement for the 10' buffer from the edge of the project to the road. The design is as close to the road as possible. The slopes established for the alternative designs are the most stable and constructible slopes given the information provided for our geotechnical slope stability analysis. It is possible there may be more available geotechnical information during the design phase that would allow us to adjust the slope slightly, but at this point with the information we have available, the slopes provided in the report are the most stable.

Additionally, we do not plan on using the existing rubble, and it will be removed from the site. The stone material that will be used to construct the project will be higher quality and of the appropriate Class III sizing and shape for the proposed structure. During the design phase, we will consider the possibility of relocating some of the material with existing shellfish resources attached, if feasible, to provide the habitat benefit. Lastly, erosion and sediment control measures will be maintained during the duration of the project including a wire-supported silt fence, until final stabilization has been achieved on all applicable portions of the site.

I did also want to let you know that we received concurrence from Brian Hopper on 09/21/20 regarding our NLAA determination for listed species that have the potential to be in the area. Lastly, I will be sure to provide you notification when the draft report/EA is released for public review.

Once again, thank you for your comments. Stay safe and I look forward to future coordination!

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 757-201-7728

----Original Message-----

From: David OBrien - NOAA Federal [mailto:david.l.obrien@noaa.gov < mailto:david.l.obrien@noaa.gov > ]

Sent: Tuesday, September 29, 2020 4:31 PM

To: Woodward, Justine R CIV USARMY CENAO (USA) <Justine.R.Woodward@usace.army.mil <mailto:Justine.R.Woodward@usace.army.mil> >

Subject: [Non-DoD Source] NAO District, James River Shoreline Stabilization, Newport News, VA

Hello Justine,

I am doing well and hope that you are too.

I have reviewed the coordination materials you sent regarding the proposed James River shoreline stabilization project, located along the James River in the City of Newport News, Virginia. As you know, the James River is designated as essential fish habitat (EFH) for 12 federally managed species and is also designated an anadromous fish use area by the Virginia Department of Wildlife Resources (DWR). Numerous species of anadromous fish use

the lower James River as a migration corridor to upriver spawning areas.

The proposed shoreline stabilization project will address approximately 600 ln. ft. of eroding shoreline and approximately 25 ft. high bank located along River Rd., between North Avenue downriver to the drainage ditch located immediately upriver of Lake Biggins. At this early phase of the design (10%), you have stated the Class III armor revetment is anticipated to extend no more than 10 ft. channelward of mean low water, which would result in impacts to approximately. 20,445 sq. ft. of nonvegetated intertidal and 6,000 sq. ft. of subaqueous bottom habitat, both designated as EFH.

We acknowledge that efforts to minimize impacts to the marine environment while protecting the City's threatened infrastructure will likely require some habitat conversion and trade-offs. However, in order to minimize impacts to the extent practicable, we recommend aligning the toe of the revetment as far landward as possible to achieve the desired 3:1 slope of the graded bank and 10 ft. minimum buffer width between the top of bank and River Road. We support the proposed use of a turbidity curtain to the extent practicable to contain resuspended sediment and sediment runoff during construction. In addition, we recommend maintaining all erosion and sediment control measures throughout construction and beyond, including installation of a silt fence at the toe of the graded bank, until native vegetation can be established on the graded bank to prevent sediment from entering the river. Also, salvaging existing concrete rubble currently supporting oysters (Crassostrea virginica) and ribbed mussels (Geukensia demissa) to be incorporated into the structure as a veneer layer at the toe would be desirable from a habitat perspective.

Provided our recommendations above are adopted into the final design, NOAA Fisheries Service concurs with your determination that although impacts and habitat conversion resulting from the proposed 600 ft. shoreline stabilization project will occur, the impacts will not substantially adversely affect essential fish habitat (EFH). We are of the opinion that given the scope of the construction, limited channelwood encroachment (10 ft.) relative to the width of the James River (4.3 miles) at the project site, a time of year restriction to help protect the migration of anadromous fish is not warranted. However, if channelward encroachment or impacts to EFH increase during the Preconstruction, Engineering and Design (PED) Phase, we ask that you reinitiate EFH consultation with my office. Also, I would appreciate notification when the draft feasibility report/EA is made available in early October.

Please note this EFH determination does not address threatened and endangered species under the purview of NOAA Fisheries Service. We understand you are coordinating with our Protected Resources Division regarding federally listed sea turtles, shortnose and Atlantic sturgeon known to the project area.

Thank you for the opportunity to comment on this project. Please feel free to contact me if you have any questions.

Take care and stay well, Dave

David L. O'Brien Fisheries Biologist

| NOAA Fisheries Service   |
|--|
| P.O. Box 1346  |
| 1370 Greate Rd.  |
| Gloucester Point, VA 23062   |
| 804-684-7828   |
| david.l.obrien@noaa.gov < <u>mailto:david.l.obrien@noaa.gov</u> > < <u>mailto:david.l.obrien@noaa.gov</u> >>           |
| manorion manager   |
| NOTICE: I am teleworking until further notice. I will be checking my phone messages regularly and will return          |
| calls as quickly as possible. Please stay well.  |
|  |
|  |
| On Fri, Sep 18, 2020 at 12:31 PM Woodward, Justine R CIV USARMY CENAO (USA)  |
| <justine.r.woodward@usace.army.mil <mailto:justine.r.woodward@usace.army.mil=""></justine.r.woodward@usace.army.mil>   |
| <mailto:justine.r.woodward@usace.armv.mil>&gt;&gt; wrote:</mailto:justine.r.woodward@usace.armv.mil>                   |
|  |
|  |
| Good Afternoon Dave,   |
|  |
| I hope you are doing well! Please see the attached EFH Assessment worksheet for a proposed shoreline                   |
| stabilization project along the James River in Newport News. I am also coordinating with the Protected Resources       |
| Division for Atlantic and shortnose sturgeon and four species of sea turtles. Please note, we are currently preparing  |
| to release the draft feasibility report/EA in early October to the public.   |
| to release the draft leasibility report/EA in early October to the public.   |
| If you require any additional information necessary to support the EFH consultation, please let me know.               |
| If you have any other questions or concerns, please don't hesitate to contact me. I look forward to hearing from you.  |
| if you have any other questions of concerns, please don't nestrate to contact the. I look forward to hearing from you. |
|  |
| Have a good weekend!   |
|  |
| Regards,   |
| <u>Justine</u>   |
| <del></del>  |
| Justine Woodward   |
| <u>Biologist</u>   |
| Environmental Analysis Section   |
| Norfolk District, U.S. Army Corps of Engineers   |
| 803 Front Street   |
| Norfolk, VA 23510  |
| <u>757-201-7728</u>  |
|  |
|  |
|  |
|  |

# APPENDIX A-7 NATIONAL HISTORIC PRESERVATION ACT SECTION 106 CONSULTATION DOCUMENTATION

## CONTINUING AUTHORITIES PROGRAM, SECTION 14

### EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS





NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Terry Clouthier Cultural Resource Director Pamunkey Indian Tribe 1054 Pocahontas Trail King William, VA 23086-2114

Dear Mr. Clouthier:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

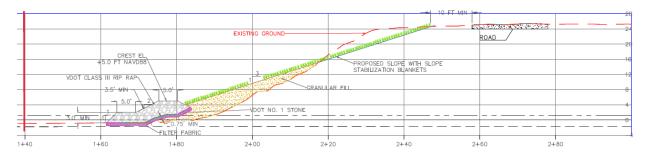


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Chief Samuel M. Bass Nansemond Indian Nation 3903 Manning Road Suffolk, Virginia 23437-8873

Dear Chief Bass:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

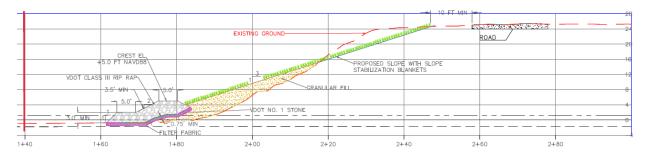


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



#### DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK

803 FRONT STREET NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Erin Thompson-Paden Director of Historic Preservation Delaware Nation 31064 State Highway 281 Anadarko, OK 73005

Dear Ms. Thompson-Paden:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

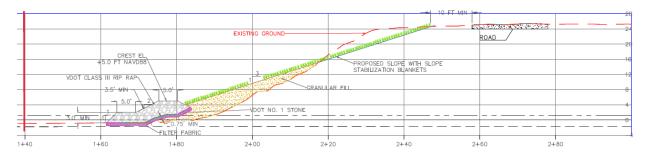


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Caitlin Rogers
Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730-9535

Dear Ms. Rogers:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

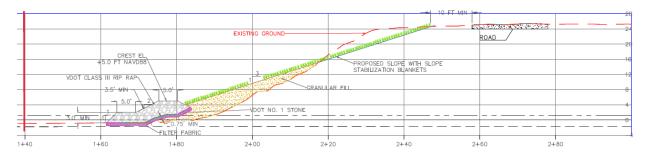


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Remedios Holmes Tribal Administrator Chickahominy Tribe Eastern Division 2895 Mt. Pleasant Road Providence Forge, VA 23140-3606

Dear Ms. Holmes:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

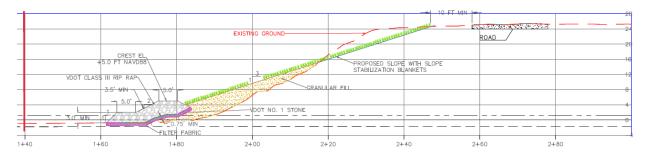


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



### US ARMY CORPS OF ENGINEERS

NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

August 28, 2020

SUBJECT: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline Newport News, Virginia

Samantha Henderson Project Review Archeologist DHR Headquarters, Richmond Central Office 2801 Kensington Avenue Richmond, VA 23221-2470

Dear Ms. Henderson:

The U.S. Army Corps of Engineers, Norfolk District (Corps), is studying an emergency streambank and shoreline protection project along the James River, Newport News, Virginia. The City of Newport News requested the Corps, Norfolk District to evaluate structural and non-structural measures that could be implemented as part of a Federal project under Section 14, Emergency Streambank and Shoreline Protection, of the Continuing Authorities Program (CAP). The focus of this study is to mitigate erosion along the James River in the vicinity of River Road, adjacent to the Government Ditch, which is threatening various public work utilities.

An approximate 600-foot section of the riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope. The project involves the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at a height of 5-feet (NAVD88); earthen sloped berm graded on a 1:3 slope; 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.

As part of the project, the Corps conducted a reconnaissance survey by a District archaeologist. The purpose was to inspect the project and determine if any resources were present and if any additional work should be required for the project. The project area was also reviewed using the VCHRIS data viewer. No known cultural resources are located within the proposed project area. The project area is heavily eroded, and the lower bank was inspected for debris and any signs of resources eroding from the bank and slope of the project area. None were observed. There is, however, considerable modern debris located within the tidal shoreline associated with modern dumping/shoreline stabilization which mainly consists of concrete debris. Because of the heavy erosion, the Corps has determined that the project area which consists of the shoreline, slope and immediate top of bank poses a low probability for the presences of cultural materials. Based upon the pedestrian survey of the project area, lack of known resources in the immediate area, and the limited project area, the Corps has determined the proposed project will have no effect to historic properties. The Corps proposes to move forward with the project utilizing its Fortuitous Finds Clause which will be placed within the project specifications. Should any resources be discovered during construction all work within the immediate area will be stopped until the resources can be ascertained, and appropriate parties notified.

The Corps requests your comments on the proposed no effect determination. Please contact Justine Woodward with any question or concerns by email at Justine.R.Woodward@usace.army.mil.

Sincerely,

Susan E. Layton

Susan Layton

Chief, Planning and Policy Branch

Norfolk District



Figure 1. Project Area and Area of Potential Effect.



Figure 2. View facing northwest.



Figure 3. View facing northwest.

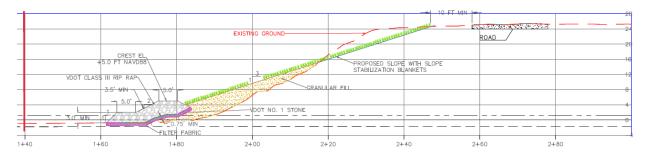
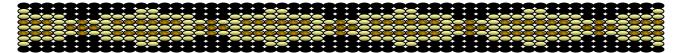


Figure 4. Proposed Project consists of a longitudinal rock sill for the length of the project area which is approximately 600 linear feet. The project would include re-grading a portion of the slope to a 1:3 slope, 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; 35,000 square feet of seeding; and 700 cubic yards of debris removal.



Catawba Indian Nation Tribal Historic Preservation Office 1536 Tom Steven Road Rock Hill, South Carolina 29730

Office 803-328-2427 Fax 803-328-5791

September 28, 2020

Attention: Susan E. Layton Department of the Army 803 Front Street Norfolk, VA 23510-1011

Re. THPO # TCNS # Project Description

2020-219-6 Emergency Streambank and Shoreline Protection, James River Shoreline

Dear Ms. Layton,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Wenonah G. Haire

Tribal Historic Preservation Officer

Cattle Rogers for



#### PAMUNKEY INDIAN TRIBE

Terry Clouthier Cultural Resource Director

#### TRIBAL GOVERNMENT

Tribal Office

1054 Pocahontas Trail King William, VA 23086

> (804) 843-2109 FAX (866) 422-3387

THPO File Number: 2020-771 Date: 09/30/2020

Susan E. Layton Chief, Planning and Policy Branch U.S. Army Corps of Engineers, Norfolk District Fort Norfolk 803 Front Street Norfolk, VA 23510

RE: Continuing Authorities Program, Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia

Dear Ms. Layton,

Thank you for contacting the Pamunkey Indian Tribe regarding the proposed undertaking relating to the emergency streambank and shoreline protection project along the James River shoreline in Newport News, Virginia. My office offers the following comments.

Due to the extremely limited potential to impact sites of significance to the Tribe, my office does not wish to remain a consulting party for the remainder of the undertaking.

However, should any human remains or pre-contact cultural or historic properties be inadvertently discovered, please cease all operations and contact our office immediately to reinitiate consultation for this undertaking.

Thank you for considering our cultural heritage in your decision-making process.

Please submit all correspondence via email whenever possible to the email below.

If you have any questions feel free to email me at terry.clouthier@pamunkey.org.

Sincerely,



From: <u>Henderson, Samantha</u>

To: Woodward, Justine R CIV USARMY CENAO (USA)

Subject: [Non-DoD Source] Re: James River Shoreline Stabilization Consultation Letter - Newport News, Virginia

**Date:** Tuesday, September 29, 2020 3:27:58 PM

#### Dear Ms. Woodward:

The Department of Historic Resources (DHR) has received the James River Shoreline Stabilization (DHR File No. 2020-0430) project for our review and comment. Based upon the documentation provided, DHR concurs with the U.S. Army Corps of Engineers' determination that no historic properties will be affected by the proposed undertaking.

Implementation of the undertaking in accordance with the finding of No Historic Properties Affected as documented fulfills the Federal agency's responsibilities under Section 106 of the National Historic Preservation Act. If for any reason the undertaking is not or cannot be conducted as proposed in the finding, consultation under Section 106 must be reopened.

Thank you for your consideration of historic resources. If you have any questions or if we may provide any further assistance at this time, please do not hesitate to contact me.

Regards,

Sam Henderson, Archaeologist Division of Review and Compliance

Phone: (804) 482-6088

Samantha.Henderson@dhr.virginia.gov <mailto:Samantha.Henderson@dhr.virginia.gov>

On Mon, Aug 31, 2020 at 9:27 AM Woodward, Justine R CIV USARMY CENAO (USA) <Justine.R.Woodward@usace.army.mil <mailto:Justine.R.Woodward@usace.army.mil> > wrote:

Good Morning Samantha,

Please see attached correspondence for your review. A hard copy will also be sent via certified mail. Please don't hesitate to contact me if you have any questions.

Regards, Justine

Justine Woodward Biologist Environmental Analysis Section Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510 757-201-7728 --

Samantha J. Henderson
Project Review Archaeologist
Review and Compliance Division
Virginia Department of Historic Resources
2801 Kensington Avenue | Richmond, VA 23221
(804) 482-6088 | samantha.henderson@dhr.virginia.gov < mailto:samantha.henderson@dhr.virginia.gov>

DHR is currently teleworking. Please consider contacting me via email rather than via a phone call as I am not at my desk.

# APPENDIX A-8 FISH AND WILDLIFE COORDINATION ACT CONSULTATION

## CONTINUING AUTHORITIES PROGRAM, SECTION 14

## EMERGENCY STREAMBANK AND SHORELINE PROTECTION

JAMES RIVER SHORELINE, NEWPORT NEWS





## United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office 177 Admiral Cochrane Drive Annapolis, Maryland 21401 http://www.fws.gov/chesapeakebay

April 12, 2021

Colonel Patrick V. Kinsman District Engineer U.S. Army Corps of Engineers 803 Front Street Norfolk, Virginia 23510-1096

Attn: Richard M. Harr, PWS, CES, Water Resources Division, Planning and Policy Branch, Planning Resource Section

RE: U.S. Fish and Wildlife Coordination Act 2(b) Report for the James River Shoreline Stabilization Draft Integrated Feasibility Study/Environmental Assessment Report February 4, 2021

#### Dear Colonel Kinsman:

This constitutes the report of the U.S. Fish and Wildlife Service (Service) on the proposed James River Shoreline Stabilization project that may be funded as part of the Continuing Authorities Program Section 14 of the Flood Control Act of 1946, as amended (P.L. 79-526), Emergency Streambank and Shore Protection. It is submitted in accordance with Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat 401, as amended; 16 U.S.C. *et seq.*); Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1513 *et seq.*); and the Coastal Barrier Resource Act (CBRA) (16 U.S.C. § 3501 et seq; 12 U.S.C. § 1441 *et seq.*). The Service previously submitted a Planning Aid Report dated March 25, 2021, containing information on the baseline biological conditions and environmental impacts. The present report summarizes pertinent information from our previous report and sets forth the Service's official position on the U.S. Corps of Engineers, Norfolk Districts (Corps) recommended plan as described in the Draft Integrated Feasibility Report/Environmental Assessment dated November 5, 2020.

#### **Project Description**

The Integrated Feasibility Report/Environmental Assessment Report evaluated four alternatives against the No Action Alternative. All alternatives proposed using rock, vegetation, or a combination of the two, to stabilize a 600-foot length of shoreline along the James River in Newport News, Virginia. The purpose of the proposed action is to stabilize the existing shoreline along a 600-foot section of the James River and prevent future erosion resulting from combined



effects of storm surge, sea level rise, and stormwater runoff. The project would provide long-term protection to existing public utilities on adjacent upland and eliminate unsafe conditions associated with the current steep slope. The Preferred Alternative selected by the Corps is Alternative 1, a rock sill with vegetated slope. The entire slope would be graded back to a 1V:3H slope, with placement of Virginia Department of Transportation (VDOT) Class III rip rap on top of VDOT number 1 stone and filter fabric at the toe. This Alternative was chosen as the lowest cost alternative and had minimal environmental impacts.

#### **Service Comments**

Minimizing hardened substrate and using more nature-based design reduces impact on the infaunal community. Living shorelines reduce erosion, improve marine habitat and spawning area, improve water quality, and filter groundwater and storm water runoff (NOAA Fisheries 2021). The Service reviewed the Feasibility Study/Environmental Assessment with the objective of identifying the alternative that would meet the purpose and need while providing the largest benefit to fish and wildlife habitat.

While all the alternatives will work to stabilize the shoreline, Alternative 4 is the best alternative from a fish and wildlife benefit perspective. Alternative 4 is a living shoreline with vegetated slope. This consists of regrading a portion of the slope to a 1V:4H, transitioning to a 1V:10H for wetland planting, and placement of filter fabric and VDOT number 1 stone topped with VDOT Class III rip rap. Alternative 4 meets the purpose and need and provides the largest benefits to fish and wildlife resources. Living shorelines maintain natural connections between land and water ecosystems that enhance resilience, increase storm water infiltration, and promote slow inland water transfer. When compared to hardened shorelines, evidence shows living shorelines are able to perform better. Marsh vegetation and oyster reefs (if present) attenuate waves and trap sediment which can allow the marsh to grow in elevation to accommodate sea level rise. If appropriately designed, the shoreline can provide fish habitat and promote marsh migration (NOAA Fisheries 2021). Incorporating oysters, native high and low marsh vegetation, submerged aquatic vegetation (SAV), a sandy or cobble beach, or other natural shoreline features can provide additional functioning habitats.

#### **Conclusion**

The Service believes that Alternative 4 provides better environmental benefits to fish and wildlife resources than Alternative 1. However, we do recognize that the cost of implementation is a significant driver in decision-making for the Corps. Although we do not believe that Alternative 1 is the best alternative for fish and wildlife habitat, we recognize that it still enhances ecological value for fish and wildlife resources. The Service recognizes that choosing Alternative 1 is a reasonable compromise between cost and ecological benefit.

The Service appreciates the opportunity to provide comment on the James River Shoreline Project Feasibility Study/Environmental Assessment. If there are any questions, please contact Amy O'Donnell, of my staff, at <a href="mailto:amy\_odonnell@fws.gov">amy\_odonnell@fws.gov</a>.

GENEVIEVE PULLIS

Digitally signed by GENEVIEVE PULLIS

Date: 2021.04.14 08:37:59

-04'00'

Genevieve LaRouche Field Supervisor

cc: Cindy Shultz, U.S Fish and Wildlife Service, Virginia Field Office

#### References

NOAA Fisheries. Understanding Living Shorelines. Accessed 2/11/2021 <a href="https://www.fisheries.noaa.gov/insight/understanding-living-shorelines">https://www.fisheries.noaa.gov/insight/understanding-living-shorelines</a>

USFWS, 2021. Draft Fish and Wildlife Planning Aid Report On James River Shoreline Stabilization Project, Newport News, Virginia Authorized under Section 14 of the Flood Control Act of 1946



## United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office 177 Admiral Cochrane Drive Annapolis, Maryland 21401 http://www.fws.gov/chesapeakebay

March 25, 2021

Richard Harr Project Manager Norfolk District, U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510

**RE:** James River Shoreline Restoration Project

Dear Richard Harr,

Enclosed is the U.S. Fish and Wildlife Service's Coordination Act Report for the proposed James River Shoreline Project in Newport News, Virginia. The project has been reviewed, impacts have been assessed and the attached letter and report serve to satisfy the requirements of the Fish and Wildlife Coordination Act (FWCA; 16 U.S.C. § 661 et seq). The report summarizes pertinent information regarding effects of the U.S. Army Corps of Engineers' plan to continue with the James River shoreline restoration. The alternative selected by the U.S. Army Corps of Engineers, "Preferred Alternative," involves a rock sill with a vegetated slope. The U.S. Fish and Wildlife Service has found the project contains actions that are not likely to have effects on the area's fish and wildlife resources, and have actions found to be beneficial for fish and wildlife resources.

We appreciate the opportunity to participate in this project. If there are any questions, please contact Amy O'Donnell <a href="mailto:amy\_odonnell@fws.gov">amy\_odonnell@fws.gov</a>.

Sincerely,

GENEVIEVE Digitally signed by GENEVIEVE PULLIS

Date: 2021.03.25
10:11:14 -04'00'

Genevieve LaRouche Field Supervisor



## Final Planning Aid Report: James River Shoreline Restoration, Newport News Virginia

Prepared for: U.S. Army Corps of Engineers Norfolk District

Prepared by: Amy O'Donnell

Chesapeake Bay Field Office U.S. Fish and Wildlife Service March 2021

#### **Executive Summary**

This document constitutes the planning aid report (PAR) of the U.S. Fish and Wildlife Service (Service) to assist the U.S. Army Corps of Engineers (Corps) with the development of the James River Shoreline study. The James River Shoreline, Newport News, Virginia study is authorized by the Continuing Authorities Program (CAP), Section 14 of the Flood Control Act of 1946, as amended (P.L.79-526), Emergency Streambank and Shore Protection. The purpose of the Section 14 program is to construct emergency streambank and shore protection to prevent natural erosion processes from damaging highways, bridge approaches, public works, churches, public and private non-profit hospitals, schools, water and sewer lines, and other public or non-profit facilities that offer public services to all, and known historic properties eligible or listed on the National Register of Historic Places. The PAR and subsequent Fish and Wildlife Coordination letter are submitted in accordance with Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat 401, as amended; 16 U.S.C. et seq.); Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1513 et seq.); and the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). The PAR summarizes information on biological resources and project impacts that are both positive and negative to Service resources.

## Table of Contents

| Executive Summary  | ii |
|--|----|
| Introduction   | 1  |
| Project Description                                      | 1  |
| Detailed Alternative Plan Description                    | 2  |
| Resources Without the Project                            | 4  |
| Baseline Environmental Conditions                        | 4  |
| Effects on Fish and Wildlife Resources                   | 5  |
| Data Quality   | 5  |
| Submerged Aquatic Vegetation                             | 5  |
| Wetlands   | 6  |
| Migratory Birds  | 6  |
| Data Metrics   | 6  |
| At-risk species  | 7  |
| American Oystercatcher (Haematopus palliates)            | 7  |
| Ruddy Turnstone (Arenaria interpres)                     | 8  |
| Cerulean Warbler (Setophaga cerulea)                     | 8  |
| Threatened and Endangered Species                        | 8  |
| Northern Long-eared Bat <i>Myotis septentrionalis</i>    | 8  |
| Green Sea Turtle ( <i>Chelonia mydas</i> )               | 9  |
| Kemp's Ridley Sea Turtle ( <i>Lepidochelys kempii</i> )  | 9  |
| Leatherback Sea Turtle (Dermochelys coriacea)            | 10 |
| Loggerhead Sea Turtle (Caretta caretta)                  | 10 |
| Atlantic Sturgeon (Acipenser oxyriynchus oxyriynchus)    | 10 |
| Shortnose Sturgeon (Acipenser brevirostrum)              | 11 |
| Fish and Shellfish Resources                             | 11 |
| Anadromous and Catadromous Fish                          | 11 |
| Essential Fish Habitat                                   | 11 |
| Coastal Barrier Resources Act                            | 12 |
| Conclusion   | 13 |
| References   | 15 |
| Appendix A. IPaC Resource List                           | 17 |
| Appendix B. Results from eBird Survey of Huntington Park | 27 |

#### Introduction

The U.S Army Corps of Engineers (Corps) requested assistance from the U.S. Fish and Wildlife Service (Service) in identifying positive and/or negative effects from a project along the James River shoreline, Newport News, Virginia. The Service developed this Planning Aid Report (PAR) to help the Corps identify, with respect to fish and wildlife resources, the least harmful and most beneficial alternatives for this project. The proposed action is to stabilize the existing shoreline along a 600-foot section of the James River; it is intended to prevent future erosion resulting from the combined effects of storm surge, sea level rise, and stormwater runoff. The project is needed to provide long-term protection to existing public utilities on the adjacent upland, including River Road, and to eliminate unsafe conditions associated with the steep slope. This project is authorized under the Continuing Authorities Program (CAP), Section 14 of the Flood Control Act of 1946, as amended (P.L.79-526), Emergency Streambank and Shore Protection. The purpose of the Section 14 program is to construct emergency streambank and shore protection to prevent natural erosion processes from damaging highways, bridge approaches, public works, churches, public and private non-profit hospitals, schools, water and sewer lines, and other public or non-profit facilities that offer public services to all, and known historic properties eligible or listed on the National Register of Historic Places. The PAR only evaluates impacts to fish and wildlife resources and their habitats and is not meant to be the sole document in which decisions are made on the preferred alternatives for this project.

#### **Project Description**

The project area lies in the City of Newport News, Virginia. The City of Newport News is located on the Lower Peninsula in eastern Virginia, adjacent to the Chesapeake Bay, approximately 65 miles southeast of Richmond. The study area is located entirely within the City along the north bank of the James River, west of the James River Bridge (US-17/US-258). It is bound on the south by the Government Ditch, to the north by North Avenue, and extends eastward to River Road (Figure 1).

The purpose of the proposed action is to stabilize the existing shoreline along the 600-foot section of the James River, the primary objective is to reduce the risk future erosion poses to existing infrastructure. Based on identified problems that the bank erosion causes within the study area, a planning objective has been established to aid in development and evaluation of the alternative plans discussed within this document. The primary objective is to stabilize the eroding shoreline to reduce the risk that River Road and the other public utilities within the vicinity will be damaged and compromised by continuous erosion over the period of analysis. The local sponsor, the City of Newport News, has provided support for the proposed shoreline project.



Figure 1. Location of the Study Area provided by the Corps

### Detailed Alternative Plan Description

In addition to the No Action/Future Without Project Alternative, the following measures are considered as in this study:

<u>Alternative 1</u>: Rock Sill with Vegetated Slope. This will consist of the entire slope being graded back to a 1V:3H slope, placement of VDOT Class III rip rap on top of VDOT number 1 stone and filter fabric at the toe.

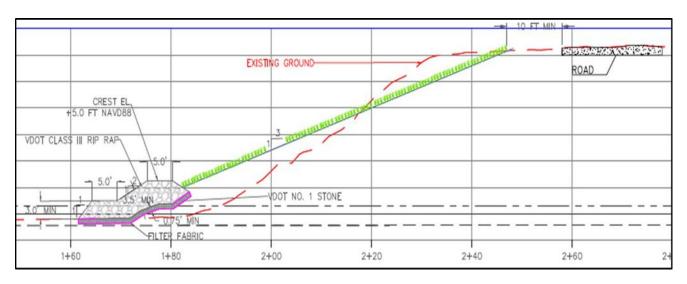


Figure 2. Alternative 1 Rock Sill with Vegetated Slope

<u>Alternative 2:</u> Full Rock Revetment. This consists of re-grading the slope to a 1V:3H slope, placement of filter fabric, placement of VDOT number 1 stone, and the placement of VDOT Class III rip rap.

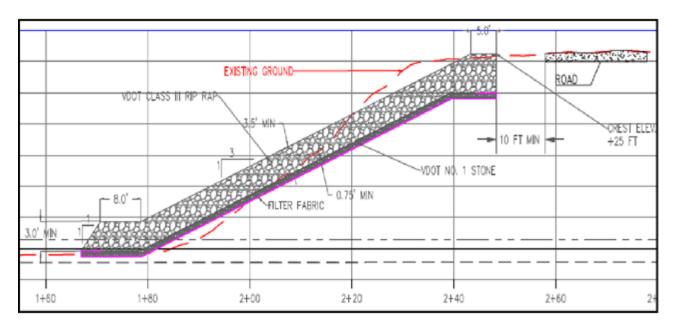


Figure 3: Alternative 2. Full Rock Revetment.

<u>Alternative 3:</u> Partial Rock Revetment with vegetated slope. This consists of re-grading the slope to 1V:3.5H slope that will be vegetated, placement of filter fabric with VDOT number 1 stone, and topped with VDOT Class III rip rap.

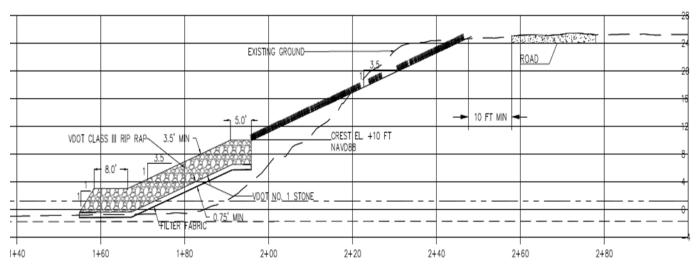


Figure 4. Alternative 3. Partial Rock Revetment with Vegetated Slope.

<u>Alternative 4:</u> Living Shoreline with vegetated slope. This consists of re-grading a portion of the slope to a 1V:4H, then transition to a 1V:10H for wetland planting, placement of filter fabric, VDOT number 1 stone topped with VDOT Class III rip rap. Alternative 4 would extend further channelward of mean low water than Alternative 1 with the potential for additional, minor impacts to Essential Fish Habitat and State-owned subaqueous bottomlands.

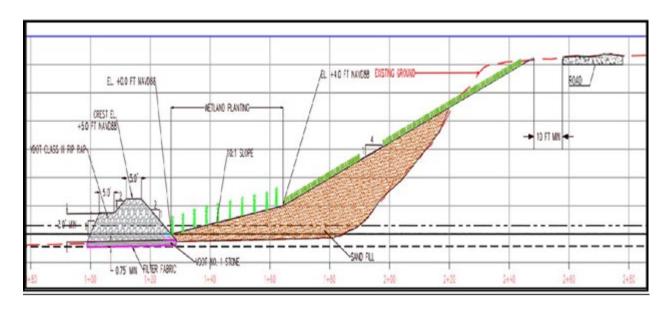


Figure 5. Alternative 4. Living Shoreline with Vegetated Slope.

#### Alternatives Considered but Dismissed

An initial array of alternatives was developed early in the planning process and included vertical steel sheet piling, rock-filled timber cribs, and breakwaters. The vertical steel sheet piling was determined to be cost prohibitive. The rock-filled timber cribs were determined to have only a lifecycle of 25 years which was not sufficient for long-term protection of the shoreline. The breakwaters were determined to require modeling and would not combat wind-erosion effects. There would also be substantial impacts to state-owned submerged lands channelward of mean low water with the construction of breakwaters.

In accordance with Engineering Regulation 1105-2-100, the recommended plan is considered to be justified if it is the least cost of all alternative streambank protection plans, is environmentally acceptable and in compliance with Federal and state regulations, and is also less than the cost to relocate the threatened facilities.

## Resources Without the Project

#### **Baseline Environmental Conditions**

Climate change is one of the most visible environmental consequences of sea level rise (SLR) in Virginia. Sea level along the coasts is slowly rising. Impacts from waves and storm surges are increasing as waters

are pushed into coastal areas and low-lying streets. The relative SLR rate on Virginia's coasts, defined as local water level relative to land, is one of the highest of all United States coasts, and the rate appears to be accelerating. SLR rates from tidal gauges in Virginia over the past 10 to 30 years are between 4 and 6 mm/year, compared to global mean rate of ~1.7mm/year over the past century as measured by tidal gauges (Ezer and Atkinson 2015). Relative SLR is primarily the rate of three processes: globally due to warming ocean temperatures and melting land ice, land subsidence (sinking), and ocean dynamics. Impacts of subsidence and ocean dynamics is evident in Virginia. Virginia's coast is sinking due to glacial isostatic adjustment and underwater extraction. Glacial isostatic adjustment (GIA) is the earth responding to the loss of the Laurentide ice sheet tens of thousands of years ago (Ezer and Atkinson 2015). The earth is rising in northern regions (New York and Quebec), while sinking in regions south of New York. This adjustment has been estimated to cause subsidence of 0.6 to 1.88mm/year. The second factor affecting Virginia's subsidence is groundwater withdrawal, which has a more local effect than GIA. The extent of this effect extends to the lower Chesapeake Bay region in the heavily populated areas of Virginia Beach and Norfolk areas; the subsidence rate has been estimated to be between 2.0 and 4.8 mm/year. Ocean dynamics is the impact of offshore ocean currents, but many studies find that variations in sea level are correlated with changes in Gulf Stream flow: high water levels and increased floods often happen during periods when the Gulf Stream is weakening. Using this information to predict sea level is a great challenge (Ezer and Atkinson 2015).

Wave action and the shifting and transport of sand particles is an ongoing natural ecological process that exists within shoreline landscapes. Wave intensity is a factor that can affect long-term shoreline stability. Wave energy results from a combination of factors. This may include tidal current dynamics, water depth, temperature, and wind conditions. In this area of the river, fetch ranges from approximately 3 to 8 miles in distance from the project site moving mostly from the southwest. Consequently, the shoreline is subject to erosion as a result of unimpeded wave action, particularly during repeated storm events. Further degradation of the aquatic environment will continue due to erosion in the absence of shoreline stabilization measures.

#### Effects on Fish and Wildlife Resources

#### Data Quality

The following is a description of priority Service resources for the project area. The information represents the best available current information that could be gathered from existing sources. Whenever possible, project specific information was used.

#### Submerged Aquatic Vegetation

Submerged aquatic vegetation (SAV) are submerged flowering plants found in shallow marine waters, such as bays and lagoons. SAV provides food, habitat, and nursery areas for numerous vertebrate and invertebrate species. The vast biodiversity and sensitivity to changes in water quality inherent in SAV communities makes them an important indicator of the overall health of coastal ecosystems. The U.S. Environmental Protection Agency has designated SAV as a special aquatic site under Section 404(b)(1) of

the Clean Water Act due to its important role in the estuarine ecosystem for nesting, spawning, nursery cover, and forage areas for fish and wildlife. A Service review of the aerial mapping surveys of SAV conducted by the Virginia Institute of Marine Science (VIMS) from 1985 to 2020 revealed that no SAV occurred near the project area during this period (VIMS SAV Mapper 2021).

#### Wetlands

The Service has always recognized the importance of wetlands to waterfowl, other migratory birds, and wildlife, and considers these habitats a trust resource. Trust resources are natural resources that the Service has been entrusted with protecting for the benefit of the American people. The Service's responsibility for protecting wetland habitats comes largely from the Fish and Wildlife Coordination Act. Since the 1950s, the Service has been particularly concerned about wetland losses and their impacts on fish and wildlife populations. According to the U.S. Fish and Wildlife Service Wetland Mapper (accessed February 5, 2021), there are two wetland types in the study area: estuarine/marine wetlands and estuarine/marine deep water.

The no action alternative will not change the overall health of the wetlands or their ability to deal with sea level rise and subsidence. The other four options all involve either a rock sill or partial or full revetment. Generally a hardened shoreline is not preferred over a naturalized shoreline design that mimics natural features. Other Corps projects have incorporated bank restoration, wetland restoration, or utilizing oyster reefs to assist in absorbing wave energy. These restoration alternatives are preferred by the Service as they mimic natural features, improve water quality, and reduce erosion. Alternative 4, which involves a rock sill and wetland plantings on the landside, could benefit wetlands in the area by attenuating wave action along shoreline and affording wetland plants to grow along the slope of the bank. This alternative has the greenest infrastructure. Full revetment would remove suitable habitat altogether, and a partial revetment, while including some planting, would be less beneficial than a natural restoration tactic or alternative one.

#### Migratory Birds

#### **Data Metrics**

Migratory birds are an important trust resource. The Service works with partners to protect, restore, and conserve bird populations and their habitats for the benefit of future generations. The following data bases were used to gather information on migratory birds within the project area, including data from the Service's Information, Planning and Consultation system (IPaC), eBird, Audubon Society, and Atlantic Coast Joint Venture. This was done in order to provide a more complete analysis of the resources that are found within the described project area and represents the "best available science" for this project. IPaC is a project planning tool that is used to streamline the Service's environmental review process. It is used to identify migratory birds, endangered species, interjurisdictional fish, marine mammals, wetlands and Refuge lands. IPaC official species lists are valid for 90 days. After 90 days project proponents should reconfirm their results by requesting an updated IPaC species list for their project area to ensure accurate and up-to-date information. Another resource used to examine wildlife presence is eBird, a website launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society, which provides rich data sources for bird abundance and distribution at a variety of spatial and

temporal scales (Sullivan et al. 2009). This site is primarily used for citizen science, so data should be used cautiously. However, when unusual birds or unusual high counts are reported, the regional experts review the data and verify potential for incorrect species identification.

A polygon of the project area was mapped in IPaC (Appendix A). From this data a list of migratory birds as well as Birds of Conservation Concern was created (Table 1). IPaC identified 55 migratory bird species for this site (IPaC report, 2/4/2021). The relevant species of conservation concern are presented below and are the subset of birds identified in IPaC that relate to the 1988 Fish and Wildlife Coordination Act mandating the Service to, "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973."

Table 1. Bird of Conservation Concern

| Common Name              | Scientific Name              | Breeding Season  |
|--------------------------|------------------------------|------------------|
| American Oystercatcher * | Haematopus palliatus         | Apr 15 to Aug 31 |
| Bald Eagle               | Haliaeetus leucocephalus     | Oct 15 to Aug 31 |
| Black Skimmer            | Rynchops niger               | May 20 to Sep 15 |
| Cerulean Warbler *       | Dendroica cerulea            | Apr 29 to Jul 20 |
| Least Tern               | Sterna antillarum            | Apr 20 to Sep 10 |
| Prothonotary Warbler     | Protonotaria citrea          | Apr 1 to Jul 31  |
| Red-headed Woodpecker    | Melanerpes erythrocephalus   | May 10 to Sep 10 |
| Red-throated Loon        | Gavia stellata               | Breeds elsewhere |
| Ruddy Turnstone*         | Arenaria interpres morinella | Breeds elsewhere |
| Rusty Blackbird          | Euphagus carolinus           | Breeds elsewhere |

<sup>\*</sup>indicates At-risk species

#### At-risk species

At-risk species are species that are declining but are not yet determined to be threatened or endangered. This includes species that are proposed for listing, candidates for listing, and/or petitioned for listing under the Endangered Species Act. The Service may also consider state species of greatest conservation need. The species detailed below were identified in the IPaC search for this project area.

#### American Oystercatcher (Haematopus palliates)

The American oystercatcher is a common coastal salt marsh and sandy beach shorebird. Its bright redorange bill is sturdy and laterally flattened, built for opening mussels and oysters. In young birds, the bill is pinkish brown and dusky black toward the tip. It has a yellow eye and an orange-red eye ring. Breeding and non-breeding plumage is almost identical in American oystercatchers. They have black heads and necks, dark blackish-brown underparts, and white wing and upper-tail patches. Their legs are a tan or sand color. Males and females look alike but females are larger and heavier (Prince William Network 2017). American oystercatchers are shy and intolerant of people. Since coastal property is always in demand for recreation and development, human disturbance is perhaps the greatest threat to breeding American oystercatchers. The American oystercatcher builds nests in open, sandy areas where

they are vulnerable to predators like red fox, cats, dogs, or other birds (Prince William Network 2017). Pollution is another threat to the oystercatcher population if the levels are high enough to affect the shellfish these shorebirds feed on (Prince William Network 2017). This species is not known to nest within the project area; therefore the proposed alternatives are not expected to impact the population trends for American oystercatchers other than temporary displacement during construction. If material used mimics preferred habitat for American oystercatchers, it may benefit the species by offering substrate used for feeding.

#### Ruddy Turnstone (*Arenaria interpres*)

The ruddy turnstone is a chunky sandpiper with short legs. This species nests on high arctic tundra of North America and Eurasia and is commonly found wintering along the coastlines of six continents. While migrating, it is seen mostly along the coast. Its preferred habitats are beaches, mudflats, jetties, and rocky shores. This bird is named for its unusual feeding habit; it inserts its bill under stones or shells and flips them over to find food underneath. For a larger object, several will work together to flip it over. They lay up to four eggs which are olive-green with spots of brown. Their diet is variable and includes insects, crustaceans, and mollusks. They have also been known to eat worms, small fish, sea urchins, and other bird eggs (Audubon 2020b). This species is not known to nest anywhere around the project area. The proposed alternatives are not expected to impact population trends for ruddy turnstone other than temporary displacement during construction. If material used mimics preferred habitat for ruddy turnstone, it may benefit the species by offering substrate used for feeding.

#### Cerulean Warbler (Setophaga cerulea)

The cerulean warbler is a small migratory bird. The males are brightly colored blue above and white below with white wing bars, white tail spots and black necklace, and black streaking along the side and back. The female is a duller turquoise color above and yellow-white below with a pale blue crown and a white or yellow line over the eye. They are considered area-sensitive. They prefer to breed only in large forest tracts, building open cup nests in the middle to upper branches of deciduous trees 30 to 60 feet above the ground. Three or four eggs are laid in May or Juneand incubated for about 2 weeks. This species is not likely to nest near the project area due to lack of appropriate nesting habitat. The proposed alternatives are not expected to impact population trends for cerulean warblers other than temporary displacement during construction.

#### Threatened and Endangered Species

IPaC identified only one threatened species, the northern long-eared bat (*Myotis septentrionalis*). The bald eagle was identified due to its federally protected status under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). The nearest bald eagle nest to the project site is located approximately 2 miles from the project site (Center for Conservation Biology; 2020). NOAA National Marine Fisheries Service (NMFS) Section 7 mapper identified several species listed below.

#### Northern Long-eared Bat Myotis septentrionalis

The northern long-eared bat is a medium-sized bat that uses caves and mines for hibernacula during the

winter months and commonly roosts in trees during the summer (Wisconsin Department of Natural Resources 2013). The current range of the northern long-eared bat spans throughout much of Canada, including all territories except Nunavut, Canada, and in the United States from Maine to North Dakota, extending south to Wyoming, Nebraska, Kansas, Oklahoma, Louisiana, and all states further east to the coast (USDA Forest Service 2014). The main threats to the northern long-eared bat are white-nose syndrome, habitat loss and degradation, and hibernaculum disturbance (Wisconsin Department of Natural Resources 2013). Although the northern long-eared bat was identified in preliminary screening, the beach shoreline and non-vegetated eroding bank is not suitable habitat for this species, therefore, the project will have no effect on this species.

#### Green Sea Turtle (Chelonia mydas)

The green sea turtle, federally listed as threatened, grows to a maximum size of approximately 1 meter in shell length, and can weight nearly 200 kg. They have a small head, single-clawed flippers, and a heart-shaped shell. The carapace of the shell has 5 vertebral scutes, 4 pairs of coastal scutes, and 12 pairs of marginal scutes. The head has a single pair of prefrontal scales and four postorbital scales behind each eye, with are distinguishing characteristics that differentiate this species from other hardshell sea turtles. The term "green" refers to the subdermal fat, the carapace is generally light to dark brown and changes as the turtle grows from hatchling to adult. This species is globally distributed, and is believed to inhabit coastal waters of over 140 countries and nest in over than 80 countries worldwide (Seminoff et al. 2015). They spend a majority of their lives in coastal foraging grounds, including shallow waters on open coastline and in protected bays and lagoons. They rely primarily on marine algae and SAV for their diet, with some populations feeding extensively on invertebrates. Green turtles nest on sandy, ocean-facing beaches. Characteristics vary but typical nesting beaches have intact dune structures and native vegetation. The clutches are laid at night at the base of a primary dune. Mean clutch size varies, an average is about 100 eggs per clutch (Seminoff et al. 2015). This species is regarded as a species of conservation concern. They are impacted by a variety of sources such as coastal development, beachfront lighting, erosion from sand mining, non-native vegetation, and sea level rise which affects hatchlings and nesting turtles. Fishing and marine pollution are shown to affect foraging and migrating green turtles, and fishery bycatch (trawling, gill net, and dredging) are also threats (Seminoff et al. 2015). Disease and predation are continuing threats to the North American population. The Service recommends that the Corps pursue appropriate coordination and consultation with National Marine Fisheries Servive (NMFS) which has Federal jurisdiction over the green sea turtle.

#### Kemp's Ridley Sea Turtle (Lepidochelys kempii)

The Kemp's Ridley sea turtle, federally listed as endangered, is one of the smallest of the sea turtles with adults reaching about 2 feet in length. The core habitat for Kemp's Ridley sea turtle occurs in the nearshore and inshore waters of the northern Gulf of Mexico, 95 percent of worldwide nesting occurs in Tamaulipas, Mexico with occasional nesting in North Carolina, South Carolina, and Florida. Adult and sub-adult Kemp's Ridley sea turtles primarily occupy nearshore habitat that contain muddy or sandy bottoms where prey can be found. Hatchlings typically associate with floating Sargassum seaweed and juveniles remain within Gulf of Mexico currents while others are swept into the Atlantic Ocean by the Gulf Stream. Nesting occurs from April into July along the coast of Mexico, with an average of two and a

half times per season. Clutch size is around 100 eggs. The decline of the Kemp's Ridley sea turtle is due primarily to human activities, including the direct harvest of adults and eggs and incidental capture in commercial fishing operations. Other threats include marine debris, disease, chemical pollution, noise, and habitat degradation (NMFS et al. 2011). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction over Kemp's Ridley sea turtle.

#### Leatherback Sea Turtle (*Dermochelys coriacea*)

The leatherback sea turtle, federally listed as endangered, is the largest, deepest diving, and most migratory and wide-ranging of all the sea turtles. They inhabit open ocean and nest on sandy beaches backed with vegetation and sloped sufficiently so that distance to dry sand is limited. The leatherback sea turtle is distributed worldwide in tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans. Nesting occurs from March to July at an average of five to seven times within the nesting season. Clutch size averages 80 to 85 eggs. The decline of leatherback sea turtles is attributed to exploitation by humans for their eggs and meat, as well as incidental take in numerous commercial fisheries in the Pacific. Other factors include degradation of nesting habitat from coastal development, disorientation of hatchlings by beachfront lighting, nest predation by native and non-native predators, degradation of foraging habitat, marine pollution and debris, and watercraft strikes (NMFS and USFWS 2013). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction over leatherback sea turtle.

#### Loggerhead Sea Turtle (Caretta caretta)

The loggerhead sea turtle, federally listed as endangered, is characterized by a large head with blunt jaws. It is found worldwide in tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans, and is widely distributed throughout its range. The loggerhead sea turtle may be found hundreds of miles out to sea as well as in inshore areas such as bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers. Foraging occurs in coral reefs, rocky places, and shipwrecks. Nesting occurs mainly on open beaches or along narrow bays having suitable sand and it is often found in association with other species of sea turtles. Loggerheads are known to nest from one to seven times within a nesting season. Average clutch size varies from 100 to 126 eggs. Threats include loss or degradation of nesting habitat from coastal development and beach armoring, disorientation of hatchlings by beachfront lighting, nest predation by native and nonnative predators, degradation of foraging habitat, marine pollution and debris, watercraft strikes, disease, and incidental take from channel dredging and commercial trawling, longline, and gill net fisheries (NMFS and USFWS 2008). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction over loggerhead sea turtle.

#### Atlantic Sturgeon (Acipenser oxyriynchus oxyriynchus)

Atlantic sturgeon, federally listed as endangered, is an anadromous species occurring on the Atlantic Coast of North America. Atlantic sturgeon are long-lived, anadromous fish reported to reach lengths of 459 cm and body weights of 364.9 kg. The Atlantic sturgeon is a bottom-feeder without teeth and has four whiskers halfway between its snout and mouth. The species has five rows of armor-like scales, called scutes, and the tail is longer on the top than on the bottom (ASSRT 2007). The species tends to

reach maturity at 16 and 17 years for males and females, respectively. The number of eggs that can be produced is about 25,000 eggs per kg of body weight and females are thought to spawn once every 2 to 6 years, whereas males are thought to spawn every 1 to 5 years. Juveniles tend to spend 1 to 3 years in freshwater before spending their adult life in the marine environment. Spawning typically occurs in the spring over large gravel and other substrates when flow, pH, and other cues are optimal (ASSRT 2007). Populations of Atlantic sturgeon can be found from Quebec, Canada down along the Atlantic Coast and Gulf Coast to Louisiana with possible extirpation in Rhode Island and presumed extirpation in Washington, D.C. (NatureServe 2017). The primary threats for this species include habitat degradation including alteration and obstruction, vessel strikes, urbanization, pollution, and fishery by-catch (ASSRT 2007). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction over Atlantic sturgeon.

#### Shortnose Sturgeon (*Acipenser brevirostrum*)

Shortnose sturgeon is an anadromous species occurring on the Atlantic Coast of North America (Collins et al. 2000). Sturgeon grow in freshwater and then spend their adult life in saltwater. Juveniles tend to spend 1 to 3 years in freshwater before entering the marine environment. Spawning typically occurs in the spring over large gravel and other substrates when flow, pH, and other cues are optimal (Florida Fish and Wildlife Conservation Commission, 2013). The primary threats for this species include habitat degradation including alteration, urbanization, pollution, and fishery by-catch (Florida Fish and Wildlife Conservation Commission, 2013). Dam construction has also had a particularly detrimental effect on sturgeon populations (Balazik 2012). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction.

#### Fish and Shellfish Resources

#### Anadromous and Catadromous Fish

The Anadromous Fish Conservation Act (Act) is a Federal law enacted in 1965 to conserve, develop, and enhance the anadromous fish resources of the U.S. that are subject to depletion from water resources development and other causes, or with respect to which the U.S. has made conservation commitments by international agreements, and the fish in the Great Lakes and Lake Champlain that ascend streams to spawn. The provisions of the Act are found under 16 USCS §§ 757a-757f. Inter-jurisdictional, catadromous and anadromous fish are a Service trust resource. Anadromous fish spend most of their adult lives in saltier water but return each year to spawn in freshwater. Catadromous fish spend most of their adult lives in freshwater and return to saltwater to spawn. The Service and our partners are working to protect the health of aquatic habitats, recover and restore populations of native fish, and provide opportunities to enjoy the many benefits of healthy aquatic resources.

#### Essential Fish Habitat

One of the priorities of National Oceanic and Atmospheric Administration (NOAA) is Essential Fish Habitat (EFH). Using the best available science, NOAA along with regional fishery management councils identify and map EFH for each life stage of over 1,000 federally managed species (see species present within the project area in Table 2). EFH includes a variety of habitat in which fish are able to spawn, breed, feed, and grow to maturity. These habitats include wetlands, reefs, seagrass, rivers, and coastal

estuaries. High priorities for EFH are referred to as Habitat Areas of Particular Concern (HAPC) due to major ecological functions, sensitivity to decline, stress from development, and/or rare habitat. Using NOAA's EFH Mapper, several species were identified to use the habitat around the project area (NOAA EFH 2020). The Service recommends that the Corps pursue appropriate coordination and consultation with NMFS who has Federal jurisdiction over EFH.

Table 2. Species within the project area identified with the essential fish habitat mapper

| Species                                    | Lifestage (s) Found at<br>Location |
|--|------------------------------------|
| Little Skate ( <i>Leucoraja erinacea</i> ) | Adult                              |
| Atlantic Herring (Clupea harenus)          | Juvenile, adult                    |
|  | Adult,                             |
| Red Hake (Urophycis chuss)                 | Eggs/larvae/juvenile               |
| Winter Skate (Leucoraja ocellata)          | Adult                              |
| Clearnose Skate (Raja eglanteria)          | Adult, juvenile                    |
| Windowpane Flounder (Scophthalmus          |                                    |
| aquosus)                                   | Juvenile                           |
| Sandbar Shark (Carcharhinus plumbeus)      | Juvenile, neonate                  |
| Sand Tiger Shark (Carcharias taurus)       | Adult                              |
| Bluefish (Pomatomus saltatrix)             | Adult, juvenile                    |
| Atlantic Butterfish (Peprilus triacanthus) | Adult, juvenile                    |
| Summer Flounder (Paralichthys dentatus)    | Larvae, Juvenile, Adult            |
| Black Sea Bass (Centropristis striata)     | Juvenile, adult                    |

#### Coastal Barrier Resources Act

The Coastal Barrier Resources Act (CBRA) and its amendments prohibit most new Federal expenditures that tend to encourage development or modification of coastal barriers. The laws do not restrict activities carried out with private or other non-Federal funds and only apply to the areas that are within the defined John H. Chafee Coastal Barrier Resource System (CBRS). The James River shoreline project area has no CBRA areas.



Figure 6. The extent of the mapped CBRA zone relative to the proposed project.

#### Conclusion

Under the no-action alternative the shoreline would remain in its current state and condition. Erosion and degradation of the shoreline would continue, resulting in impacts to upland habitat, nearby roads, water quality and local aquatic species for this segment of the James River.

Alternative 1 involves the construction of a rock sill with a vegetated slope. This will offer minimal benefits to fish and wildlife resources. Alternative 2 is a full rock revetment. This will have no benefits to fish and wildlife resources. Alternative 3 is a partial rock revetment with vegetated slope. This alternative also offers very limited benefits to fish and wildlife resources. Alternative 4, a living shoreline with vegetated slope and wetland planting, offers the highest benefits of fish and wildlife resources of the alternatives offered. However, the Service would like the Corps to reconsider the potential for a greener shoreline. Under Alternatives Considered but Dismissed, breakwaters were mentioned. For fish and wildlife resources, segmented breakwaters would offer a greener shoreline instead of a rock sill with Alternative 4. Segmented breakwaters can help promote SAV in shallow water, offering quiescent conditions along with sediment transport. Segmented breakwaters help stabilize sediment in the area to reach dynamic equilibrium and this promotes balance between sediment and marsh species (CCRM 2021). Living shorelines built with sills parallel to the shoreline reduce wave energy and prevent erosion. They provide habitat and ecosystem services (habitat for fish and other wetland species), maintain

natural connections between land and water ecosystems to enhance resilience, increase storm water infiltration, and slow inland water transfer (SAGE 2021). It is an alternative to a more hardened shoreline (such as revetment). Evidence shows that during major storm activity, living shorelines are able to perform better than a hardened shoreline. Marshes and oyster reefs act as barriers to waves. A mere 15 feet of marsh can absorb up to 50 percent of wave energy. Marshes also trap sediment from the water which can allow marshes to continue to grow in elevation to accommodate for sea level rise (NOAA Fisheries 2021). Also, as per Code of Virginia § 28.2-104.1. (Living shorelines; development of general permit; guidance), "The Commission shall permit only living shoreline approaches to shoreline management unless the best available sciences shows that a living shoreline approach is not suitable, the Commission shall require the applicant to incorporate, to the maximum extent possible, elements of living shoreline approaches into permitted projects" (Virginia State Law Portal 2021). There are also multiple living shoreline projects up river (Jamestown Beach Restoration) and down river (multiple projects in Norfolk including Virginia Zoo and Hermitage Museum restoration sites) from the proposed project area that can show efficacy for what type of living shoreline is suitable for the area such as oyster reefs and segmented breakwaters (CCRM VIMS Project Mapper). While there may be a concern for state-owned subaqueous bottomlands, wetland restoration occurring landward could mitigate impacts to the bottomlands. If the shoreline is designed for fish and wildlife resources, it can provide fish habitat and promote marsh migration versus seaward erosion (NOAA Living Shoreline 2021). Areas with shorelines that mimic natural coastal habitat have higher populations of fish and other living organisms, which is beneficial for shorebirds. Many types of shoreline protection can result in negative impacts when rock sills are involved. Minimizing hardened, unnatural surfaces would reduce the impact on infaunal community. Incorporating oyster, native high and low marsh vegetation, native SAV, sandy or cobble beach, or other natural shoreline features can add additional functional habitats. Incorporating breaks or openings in breakwaters or rock sills facilitates natural water flushing and allows a variety of aquatic organisms to access habitat. Fish habitat enhancement structures can be added to the rock sills (NOAA 2015). Because of the ability to reduce erosion, improve marine habitat and spawning area, improve water quality, and even potential to filter stormwater and groundwater runoff, the Service recommends an alternative with living shoreline and to consider including oyster reef structures and/or segmented breakwater to promote submerged land habitat quality and provide the most benefits for fish and wildlife resources.

#### References

Atlantic Sturgeon Status Review Team (ASSRT). 2007. Status Review of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). Report to National Marine Fisheries Service, Northeast Regional Office. February 23, 2007. 174 pp.

Audubon Ruddy Turnstone. 2020b. <a href="https://www.audubon.org/field-guide/bird/ruddy-turnstone">https://www.audubon.org/field-guide/bird/ruddy-turnstone</a> Accessed 2/3/2021

Balazik, M. 2012. Life history analysis of James River Atlantic Sturgeon (Acipenser oxyrinchus oxyrinchus) with implications for management and recovery of the species. PhD Dissertation.

Center for Coastal Resources Management: Living Shorelines Design Options- Offshore Breakwater System. <a href="http://ccrm.vims.edu/livingshorelines/design\_options/offshore\_breakwater.html">http://ccrm.vims.edu/livingshorelines/design\_options/offshore\_breakwater.html</a> Accessed 3/4/21

Center for Conservation Biology Mapping Portal Bald Eagle Nest; Accessed February 11, 2021 https://ccbbirds.org

Center for Conservation Biology VIMS Living Shoreline Project Mapper <a href="https://vims-wm.maps.arcgis.com/apps/MapJournal/index.html?appid=95bfc110379844d5809bce8d09487538#">https://vims-wm.maps.arcgis.com/apps/MapJournal/index.html?appid=95bfc110379844d5809bce8d09487538#</a> Accessed 3/4/2021

Collins, M.R., S.G. Rogers, T.I.J. Smith, and M.L. Moser. 2000. Primary factors affecting sturgeon populations in the southeastern United States: fishing mortality and degradation of essential habitats. Bulletin of Marine Science. 66:917-928.

Ezer, T and L.R. Atkinson. 2015. Sea Level Rise in Virginia- Causes, Effects and Response. Virginia Journal of Science. Vol 66 No 3.

Florida Fish and Wildlife Commission. 2013. A species action plan for the Atlantic sturgeon Acipenser oxyrinchus oxyrinchus. Tallahassee, Florida. 42 pp.

Maryland Department of Natural Resources Marine Mammals and Sea Turtle FAQs. 2020. https://dnr.maryland.gov/fisheries/Pages/oxford/marine-mammal-FAQ.aspx Accessed 12/21/2020

National Marine Fisheries Service and U.S. Fish and Wildlife Service. 2008. Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*), Second Revision. National Marine Fisheries Service, Silver Spring, MD

National Marine Fisheries and U.S. Fish and Wildlife Service. 2013. Leatherback Sea Turtle (*Dermochelys coriacea*) 5-Year Review: Summary and Evaluation. 93pp.

National Marine Fisheries Service, U.S. Fish and Wildlife Service, and SEMARNAT. 2011. Bi-National Recovery Plan for the Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Second Revision. National Marine Fisheries Service. Silver Spring, Maryland 156 pp. + appendices

NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <a href="http://explorer.natureserve.org">http://explorer.natureserve.org</a>.

NOAA Fisheries Essential Fish Habitat <a href="https://www.fisheries.noaa.gov/national/habitat-conservation/essential-fish-habitat-conservation/essential-fish-habitat-to-conservation/essential-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-habitat-fish-ha

NOAA Fisheries. Understanding Living Shorelines. Accessed 2/11/2021 <a href="https://www.fisheries.noaa.gov/insight/understanding-living-shorelines">https://www.fisheries.noaa.gov/insight/understanding-living-shorelines</a>

NOAA. 2015. Guidance for Considering the Use of Living Shorelines.

https://www.habitatblueprint.noaa.gov/wp-content/uploads/2018/01/NOAA-Guidance-for-Considering-the-Use-of-Living-Shorelines 2015.pdf

Prince William Network. 2017. List of Shorebird Profiles. http://migration.pwnet.org/pdf/Shorebird Profiles1.pdf Accessed 3/28/2017

SAGE Living Shorelines Brochure. <a href="https://coast.noaa.gov/data/digitalcoast/pdf/living-shoreline.pdf">https://coast.noaa.gov/data/digitalcoast/pdf/living-shoreline.pdf</a> Accessed 2/11/2021

Seminoff, J.A., C.D. Allen, G.H. Balazs, P.H. Dutton, T. Eguchi, H.L. Haas, S.A. Hargrove, M.P. Jensen, D.L. Klemm, A.M. Lauritsen, S.L. MacPherson, P. Opay, E.E. Possardt, S.L. Pultz, E.E. Seney, K.S. Van Houtan, R.S. Waples. 2015. Status Review of the Green Turtle (Chelonia mydas) Under the U.S. Endangered Species Act. NOAA Technical Memorandum, NOAA- NMFS-SWFSC-539. 571pp

U.S. Department of Agriculture Forest Service (USDAFS). 2014. Biological Assessment for Activities Affecting Northern Long-Eared Bats on Southern Region National Forests. <a href="https://www.fs.usda.gov/Internet/FSE">https://www.fs.usda.gov/Internet/FSE</a> DOCUMENTS/stelprd3843091.pdf

U.S. Fish and Wildlife Service. 2020. Species of Concern: Cerulean Warbler Fact Sheet. <a href="https://www.fws.gov/Midwest/es/soc/birds/cerw/cerw-fctsheet.html">https://www.fws.gov/Midwest/es/soc/birds/cerw/cerw-fctsheet.html</a>

U.S. Fish and Wildlife Wetlands Mapper Accessed 2/5/2021 <a href="https://www.fws.gov/wetlands/data/Mapper.html">https://www.fws.gov/wetlands/data/Mapper.html</a>

VIMS SAV Mapper Accessed 2/5/2021

https://www.vims.edu/research/units/programs/sav/access/maps/index.php

Virginia State Law Portal. https://law.lis.virginia.gov/vacode/28.2-104.1/ Accessed 3/3/2021

Wisconsin Department of Natural Resources. 2013. Northern long-eared bat (Myotis septentrionalis) species guidance. Madison, WI. 10 pp.

2/4/2021

IPaC: Explore Location resources

**IPaC** 

U.S. Fish & Wildlife Service

## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for CONSUL additional information applicable to the trust resources addressed in that section.

#### Location

Newport News County, Virginia



## Local office

Virginia Ecological Services Field Office

**4** (804) 693-6694

(804) 693-9032

6669 Short Lane Gloucester, VA 23061-4410

http://www.fws.gov/northeast/virginiafield/

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

## Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

#### **Mammals**

NAME STATUS

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

2/9

**Northern Long-eared Bat** Myotis septentrionalis Wherever found

Threatened

No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045

#### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty  $Act^{1}$  and the Bald and Golden Eagle Protection  $Act^{2}$ .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <a href="http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php">http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php</a>
- Measures for avoiding and minimizing impacts to birds
   <a href="http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php">http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php</a>
- Nationwide conservation measures for birds <u>http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

2/4/2021

#### IPaC: Explore Location resources

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS
ACROSS ITS ENTIRE RANGE.
"BREEDS ELSEWHERE" INDICATES
THAT THE BIRD DOES NOT LIKELY
BREED IN YOUR PROJECT AREA.)

American Oystercatcher Haematopus palliatus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/8935

Bald Eagle Haliaeetus leucocephalus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1626

Black Skimmer Rynchops niger

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/5234

Cerulean Warbler Dendroica cerulea

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/2974

Least Tern Sterna antillarum

This is a Bird of Conservation Concern (BCC) only in particular Bird

Conservation Regions (BCRs) in the continental USA

Prothonotary Warbler Protonotaria citrea

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 15 to Aug 31

Breeds Oct 15 to Aug 31

Breeds May 20 to Sep 15

Breeds Apr 29 to Jul 20

Breeds Apr 20 to Sep 10

Breeds Apr 1 to Jul 31

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

4/9

Red-headed Woodpecker Melanerpes erythrocephalus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Sep 10

Red-throated Loon Gavia stellata

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Ruddy Turnstone Arenaria interpres morinella

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

Rusty Blackbird Euphagus carolinus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

### **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

#### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

5/9

#### Breeding Season (

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

#### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

#### No Data (-)

A week is marked as having no data if there were no survey events for that week.

#### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the  $\underline{\text{Avian Knowledge Network (AKN)}}$ . This data is derived from a growing collection of  $\underline{\text{survey, banding, and citizen science datasets}}$ .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

#### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

#### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

#### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

#### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

### **Facilities**

## National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns. JSULTAT

THERE ARE NO REFUGE LANDS AT THIS LOCATION

#### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of **Engineers District.** 

#### WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

#### **Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

https://ecos.fws.gov/ipac/location/JFCYDYIDC5AMTNNVJVHIYNIF3E/resources

8/9

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted.

Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain welland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wellands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

# Appendix B. Results from eBird Survey of Huntington Park (2/5/2021)

| A                     | Carada Caraa            | C                     | Duninia Mandalan                              |
|-----------------------|-------------------------|-----------------------|---|
| American Black Duck   | Canada Goose            | Green Heron           | Prairie Warbler                               |
| A                     | Camalina Chialasta      | Great Crested         | Dl - Mti                                      |
| American Coot         | Carolina Chickadee      | Flycatcher            | Purple Martin                                 |
| Amaniaan Cuass        | Caralina Muan           | Haming Cull           | Red-bellied                                   |
| American Crow         | Carolina Wren           | Herring Gull          | Woodpecker                                    |
| American Goldfinch    | Cedar Waxwing           | Hooded Merganser      | Red-eyed Vireo                                |
| American Redstart     | Chimney Swift           | Horned Grebe          | Red-winged Blackbird                          |
| American Robin        | Chipping Sparrow        | House Finch           | Ring-billed Gull                              |
| American Wigeon       | Common Goldeneye        | House Sparrow         | Ring-necked Duck                              |
| Bald Eagle            | Common Grackle          | House Wren            | Rock Pigeon                                   |
| Baltimore Oriole      | Common Loon             | Killdeer              | Royal Tern                                    |
| Barn Swallow          | Common Yellowthroat     | Laughing Gull         | Ruby-crowned Kinglet                          |
|                       |                         | Lesser Black-backed   | , , <u>, , , , , , , , , , , , , , , , , </u> |
| Belted Kingfisher     | Cooper's Hawk           | Gull                  | Ruddy Duck                                    |
| Black-and-white       |                         |                       |   |
| Warbler               | Dark-eyed Junco         | Magnolia Warbler      | Solitary Sandpipe                             |
|                       | Double-crested          |                       |   |
| Blackpoll Warbler     | Cormorant               | Mallard               | Song Sparrow                                  |
| Black-throated Blue   |                         |                       |   |
| Warbler               | Downy Woodpecker        | Merlin                | Spotted Sandpiper                             |
| Blue Grosbeak         | Eastern Bluebird        | Mourning Dove         | Summer Tanager                                |
| Blue Jay              | Eastern Towhee          | Northern Cardinal     | Tree Swallow                                  |
| Blue-gray Gnatcatcher | Eastern Wood-Pewee      | Northern Flicker      | Tufted Titmouse                               |
| Boat-tailed Grackle   | European Starling       | Northern Mockingbird  | Turkey Vulture                                |
|                       |                         |                       | White-breasted                                |
| Bonaparte's Gull      | Fish Crow               | Northern Parula       | Nuthatch                                      |
|                       |                         | Northern Rough-winged |   |
| Brown Creeper         | Fox Sparrow             | Swallow               | White-eyed Viero                              |
|                       |                         |                       | White-throated                                |
| Brown Pelican         | Gadwall                 | Northern Waterthrush  | Sparrow                                       |
| Brown Thrasher        | Golden-crowned Kinglet  | Orchard Oriole        | Wilson's Warbler                              |
| Brown-headed Cowbird  | Gray Catbird            | Osprey                | Wood Duck                                     |
| Brown-headed          |                         |                       |   |
| Nuthatch              | Great Black-backed Gull | Peregrine Falcon      | Yellow Warbler                                |
|                       |                         |                       | Yellow-bellied                                |
| Bufflehead            | Great Blue Heron        | Pied-billed Grebe     | Sapsucker                                     |
|                       | Great Egret             | Pine Warbler          | Yellow-billed Cuckoo                          |
|                       |                         |                       | Yellow-rumped Warbler                         |

# **APPENDIX B**



## **FINAL REAL ESTATE PLAN**

**CAP Section 14** 

Emergency Streambank and Shoreline Protection

James River Shoreline Feasibility Study

Newport News, Virginia

Prepared for

U.S. Army Corps of Engineers North Atlantic Division Norfolk District

Prepared by

Alicia Barrette
Realty Specialist
Real Estate Division
Acquisition, Management, and Disposal Branch
Norfolk District

## Table of Content

| 1.  | Preamble  | 1 |
|-----|---|---|
| 2.  | Statement of Purpose  |   |
| 3.  | Project Purpose and Features  |   |
|     | a) Project Purpose  | 2 |
|     | b) Recommended Plan   |   |
|     | c) Required Lands, Easements, and Right-of-Ways (LER)                 | 2 |
| V.  | d) Appraisal Information  |   |
| 4.  | LER Owned by the Non-Federal Sponsor                                  | 4 |
| 5.  | Non-Standard Estates  |   |
| 6.  | Existing Federal Projects   | 6 |
| 7.  | Federally-Owned Land  |   |
| 8.  | Navigational Servitude  | 5 |
| 9.  | Real Estate Maps  | 5 |
| 10. | Induced Flooding  | 5 |
| 11. | Baseline Cost Estimate for Real Estate (BCERE)                        | 5 |
| 12. | Public Law 91-646, Uniform Relocation Assistance                      |   |
| 13. | Mineral and Timber Activity   | 7 |
| 14. | Land Acquisition Experience and Capability of the Non-Federal Sponsor | 7 |
| 15. | Land Use Zoning   | 7 |
| 16. | Schedule of Real Estate Acquisition                                   | 7 |
| 17. | Relocation of Facilities or Public Utilities                          | 8 |
| 18. | Hazardous, Toxic, and Radioactive Waste (HTRW)                        | 8 |
| 19. | Project Support   | 8 |
| 20. | Risks Associated with Advanced Land Acquisition                       | 8 |
| 21. | Recommendation  | 9 |

## Attachments:

Exhibit "A" - Real Estate Map

Exhibit "B" – Estates Required
Exhibit "C" – NFS Capability Assessment

## 1. Preamble

a) <u>Study Authorization</u>: The James River Shoreline, Newport News, Virginia study is authorized by Section 14 of the Flood Control Act of 1946, as amended (P.L.79-526), Emergency Streambank and Shore Protection. The Purpose of the Section 14 program is to construct emergency streambank and shore protection to prevent natural erosion processes from damaging highways, bridge approaches, public works, churches, public and private non-profit hospitals, schools, water and sewer lines, and other public or non-profit facilities that offer public services to all, and known historic properties eligible or listed on the National Register of Historic Places.

If an eligible facility is in imminent danger of failure, and after a request for a project has been received from a potential non-federal sponsor stating its desire to participate in a solution, the Corps will conduct a feasibility study to analyze the problem, develop a solution, and determine the feasibility of a solution. In the feasibility phase, the first \$100,000 is 100 percent federally funded. Any additional feasibility study costs require an executed Feasibility Cost Sharing Agreement, stating that all costs above the initial \$100,000 are cost-shared 50 percent federal and 50 percent non-federal.

- b) Official Study Designation: Continuing Authorities Program, Section 14 Emergency Streambank and Shoreline Protection, James River Shoreline Feasibility Study (the "Study").
- c) <u>Study Location</u>: The project area is located along the east bank of the James River west of River Road between North and South Avenues in Newport News, Virginia. The section of the bank is approximately 600 feet long. The shoreline in this area has been severely eroded by wind and wave action from the James River.
- d) Non-Federal Sponsor: The non-Federal partner for the Study is the City of Newport News, Virginia (the "Sponsor" or "NFS"). The City of Newport News will also serve as the non-Federal sponsor for the construction of the Study's Recommended Plan (defined in paragraph 3(b)) at a 50% (Federal) and 50% (non-Federal) cost share. In accordance with the Project Partnership Agreement (PPA) between the Sponsor and the Department of the Army (the "Government"), which is scheduled to be executed in January 2022, the Sponsor will be responsible for performing or ensuring the performance of the Lands, Easements, Rights-of-Way, Relocation, and Disposal Area (LERRD) requirements for the Study's Recommended Plan as outlined in this Real Estate Plan (REP).

## 2. Statement of Purpose

This REP is presented in support of the Study, and describes the real estate required to implement the project. The purpose of the REP is to identify the LERRD necessary to support construction, operation and maintenance of the proposed project elements described in the Study, and to outline the costs and real estate considerations associated with project implementation.

This Study is preliminary and written to the level of detail of the main report, other details may be added and is intended for planning purposes only. Both the final real property lines and land value estimates are subject to change even after approval of this report. There may be modifications to the plans that occur during the Design and Implementation phase, thus changing the final acquisition area(s) and/or administrative and land costs.

## 3. Project Purpose and Features

- a) Study Purpose: The purpose of this study is to determine if constructing emergency streambank protection to prevent bank erosion from damaging River Road and other public works utilities on River Road is feasible and economically justified. The study identifies the least cost alternative, and the recommended plan is justified if total project costs are less than costs of relocating the threatened road and public utilities. Federal costs are limited to not more than \$5,000,000 for one locality. Cost of lands, easements, right-of-way, relocations of utilities, disposal areas, and the operation and maintenance of the project, once completed, are a non-federal responsibility.
- b) Recommended Plan: The recommended plan, Alternative 1, consists of the stabilization of approximately 600 linear feet eroding riverbank along the James River with the construction of a longitudinal rock sill running the length of the project area at an elevation of 5-feet (NAVD88); earthen sloped berm graded on a 1 Vertical to 3 Horizontal (1V:3H) slope; approximately 2,900 tons of Virginia Department of Transportation (VDOT) Class III riprap and 800 tons of VDOT No. 1 stone; an estimated 4,300 cubic yards of fill; 1,600 square yards of geotextile filter fabric; approximately 35,000 square feet of seeding; and 700 cubic yards of debris removal. This plan will impact 8 parcels of land, 3 of which are owned by the Sponsor.
- c) Required Lands, Easements, Right-of-Ways (LER): In accordance with the executed PPA, the Sponsor will be responsible for acquiring or ensuring the acquisition of all the LER required for the construction, operation and maintenance of the Recommended Plan. Table-1 reflects the required real estate to implement the Recommended Plan.

Since this report was prepared during a feasibility level study, the size of the required real estate interests presented are preliminary estimates based only on existing, readily available Geographic Information System (GIS) data. The LER requirements are subject to change with plan optimization during the Recommended Plan's design and implementation phase when final plans, specifications and detailed drawings are prepared.

Table 1 LERRD details

| Parcel ID # | Estate Required              | Ownership | Required<br>Acreage |
|-------------|------------------------------|-----------|---------------------|
| 272000129   | Temporary Work Area Easement | Private   | .154 Acres          |
| 272000261   | Bank Protection Easement     | Private   | .079 Acres          |
| 272000242   | Bank Protection Easement     | Private   | .023 Acres          |
| 268000542   | Bank Protection Easement     | Private   | .023 Acres          |
| 272000239   | Bank Protection Easement     | Private   | .082 Acres          |
| 272000130   | Bank Protection Easement     | NFS Owned | .544 Acres          |
| 272000262   | Bank Protection Easement     | NFS Owned | .38 Acres           |
| 272000301   | Bank Protection Easement     | NFS Owned | .01 Acres           |

Parcel Id # 272000129 is proposed currently as the staging area for the project. However, this area may not be utilized as the City of Newport may have available areas in the vicinity that could

be utilized instead. Access to the project will be using River Road for any land access and water access is available as well.

The following details the minimum interest in real property required for the Recommended Plan.

- (1) <u>Permanent Bank Protection Easement (USACE Standard Estate No. 21)</u> Approximately 1.141 acres are required for permanent bank protection easement to construct, operate, and maintain the recommended plan, there are 7 tax parcels (4 privately-owned and 3 publicly-owned) impacted by this easement.
- (2) <u>Temporary Work Area Easement (TWAE) (USACE Standard Estate No. 15</u> Approximately .154 acres are required in TWAEs for work and staging purposes. The term of the purposed TWAE would be for 12 months.

The easement for the lands acquired by the Sponsor must contain the USACE-approved standard estate language as written herein (see **Exhibit "B"** for the estate language). After the PPA is fully executed and once the final design of the Recommended Plan is complete, a general written description of the final LER (with corresponding real estate maps required will be provided to the Sponsor in their formal written *Notice to Proceed with Real Estate Acquisition* letter (hereinafter, the "NTP").

Once the Sponsor receives the NTP from USACE, the Sponsor will commence real estate acquisition activities. To delineate the precise boundary of the required estate and to mitigate against potential boundary disputes, a boundary land survey with a corresponding legal description for each required estate will be completed by the Sponsor. Further, the Sponsor is advised to obtain a chain of title and title insurance on all acquired property to identify potential encumbrances and to protect against "defects" in title. To ensure easements acquired remain in effect in the event of a foreclosure, a Subordination of Mortgage is necessary for properties with an existing mortgage(s). The Sponsor must work with the property owners and their mortgage lenders to execute the appropriate agreement that allows the mortgage to be subordinate to the easement. USACE will remain in close coordination with the Sponsor throughout the real estate acquisition process for support and guidance.

After the Sponsor completes its acquisition efforts and prior to USACE's issuance of the solicitation for construction contracts, the Sponsor must provide USACE with copies of all real estate conveyance agreements recorded in their respective county and a signed *Authorization for Entry* (with an attorney's Certificate of Authority) for all the LER USACE identified in the NTP for that construction contract. USACE will examine and evaluate all records received to ensure sufficient real property interests are available to support construction. USACE will then certify in writing to the appropriate USACE District elements that the real estate for the Recommended Plan has been obtained and the solicitation for construction contract(s) may commence.

d) <u>Appraisal Information</u>: In accordance with USACE Real Estate Policy Guidance Letter No. 31, CEMP-CR, 11 Jan 19, subject: Real Estate Policy Guidance Letter No. 31-Real Estate

<sup>&</sup>lt;sup>1</sup> A defective title is when real property has a publicly-recorded encumbrance, such as a lien, mortgage, or judgment, where title ownership cannot be legally transferred to another party free and clear.

Support to Civil Works Planning (hereinafter referred to as "PGL 31"), a land appraisal cost estimate, or a "rough order of magnitude" estimate, was completed for the Recommended Plan since the value of real estate (land, improvements and severance damages) was not expected to exceed ten percent of the total costs of the Recommended Plan. A cost estimate is <u>not</u> a full appraisal. To establish a more accurate land valuation for the required real estate, a full land appraisal based on surveyed boundaries of the Recommended Plan's final design plans is required.

The appraisal cost estimate represents the estimated market value of the real estate required for the Recommended Plan. It also serves to identify the estimated compensation amount paid to land owners for the purchase of the required real estate. The appraisal cost estimate does not include the incidental costs (e.g., appraisals, surveys, title, attorney fees, etc.) that would be incurred to facilitate and complete the acquisition of real estate. The appraisal cost estimate is an item of the Recommended Plan's 01-Lands & Damages cost account. It is incorporated into the Base Line Cost Estimate for Real Estate (BCERE) under the "Land Payments" and "Land Payments under PL 91-646" line items. See paragraph 11 for the BCERE and the Recommended Plan's overall estimated real estate costs.

An appraisal cost estimate was completed by a licensed USACE staff appraiser who concluded, as of June 17, 2020, the market value (i.e., property owner's compensation amount) for the Recommended Plan's required real estate is approximately **\$450,000**. Table-3 provides a summary of the estimated market value for the real estate required.

Table-2: Estimated Market Value of the Required Real Estate

| Estate Type         | Estimated Market Value |
|---------------------|------------------------|
| Permanent Easements | \$440,000.00           |
| Temporary Easements | \$10,000.00            |
| Total               | \$450,000.00           |

## 4. LER Owned by the Non-Federal Sponsor

The City of Newport News currently owns three parcels of land within the required project footprint in fee. This land consists of .934 acres out of the 1.295 acres required for the project. The Sponsor confirmed that they have no competing needs for the land and will grant an authorization for entry for construction here in accordance with ER 405-1-12. There is a confirmed encroachment on Sponsor owned Parcel 272000301. The Sponsor will need to resolve the encroachment prior to the certification of lands to proceed with construction. The Sponsor can receive credit for the currently owned land required for the project and the land required will be valued as of the date of the authorization for entry for construction to determine the creditable amount.

## 5. Non-Standard Estates

Currently, there are no proposed non-standard estates for the Recommended Plan. Non-standard estates are necessary only when there is no corresponding USACE approved standard estate for the real property interest required, or when changes to a corresponding standard estate (or previously approved non-standard estate) are desired. In such situations, a non-standard

estate will be drafted in collaboration with the Sponsor, then distributed for approved by the District Chief of Real Estate or Headquarters USACE, as appropriate.

## 6. Existing Federal Project

There are no existing federal projects within the project area. However, adjacent to the project is The Government Ditch. The Government Ditch is a Section 205 project of the Flood Control Act approved 30 June 1948. Built for drainage to minimize flooding in the area from Newmarket Creek. The proposed shoreline protection will help prevent future damages to The Government Ditch where it feeds into the James River.

## 7. Federally-Owned Land

The Recommended Plan includes no Federally-owned lands as part of its LER requirements.

## 8. Navigational Servitude

The application of Navigational Servitude is not available for the Recommended Plan. Navigational Servitude is the dominant right of the Federal government under the Commerce Clause of the U.S. Constitution (Article 1, Section 8, Clause 3) to use, control, and regulate the navigable waters of the United States and the submerged lands thereunder for various commerce-related purposes, including navigation and flood control. Generally, the Federal government does not acquire interests in real property that it already possesses or over which its use or control is or can be legally exercised. If navigational servitude is found to be available, then the Federal Government will generally exercise its right thereunder and, to the extent of such rights, will not acquire a real property interest in the land to which the navigational servitude applies.

## 9. Real Estate Maps

Real estate maps are provided in **Exhibit "A"**. The GIS tax parcel data and ownership was obtained from the City of Newport News in May 2019, with their last update occurring in March 2020. The lot boundaries delineated in the real estate maps do not represent legal boundaries and should not be used to provide a legal determination of land ownership. The parcels boundaries are not survey data and should not be used as such. There may be boundary discrepancies between what is shown on the real estate maps and the property's actual deeded boundary. The GIS tax parcel data obtained is intended for planning purposes only to provide a reasonable representation of parcel boundaries and project features. Surveys of the Recommended Plan's final design are needed to determine the levee/floodwall's precise location on properties based on the property's deeded legal description.

## 10. Induced Flooding

The Recommended Plan does not induce flooding.

## 11. Baseline Cost Estimate for Real Estate (BCERE)

a) The BCERE establishes the estimated financial costs (for both the Government and Sponsor) that are attributed to the Recommended Plan's real estate requirements. It is recorded in the 01-Lands & Damages project cost account. The Recommended Plan's total estimated real estate cost is \$647,200.00. Table-4 provides a summary of the BCERE.

Table-3: BCERE Summary

| Project Account   | Federal Costs | Non-Federal Cost | Total BCERE |
|-------------------|---------------|------------------|-------------|
| 01-Lands &Damages | \$34,000      | \$613,200        | \$647,200   |

b) For civil works projects that are cost-shared between the Federal government and a non-Federal interest, the Water Resources Development Act of 1986 ("WRDA 86" or "Public Law 99-662") assigns the NFS the responsibility of providing the <u>LER</u>, performing the facility/utility relocations, and fulfilling any disposal area requirements (collectively referred to as "LERRD") for the project. All LERRD requirements must be performed in accordance with the project's PPA, WRDA 86, and Public Law 91-646 (Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970) as amended.

The valuation of LER for crediting purposes for continuing authority projects constructed pursuant to Section 14 of the Flood Control Act of 1946, is the same as for other projects except for cases in which the required LER is part of the tract of land that includes the facility or structure being protected. In such cases, the NFS shall not receive credit for the value of LER it provides that are owned by the NFS when the PPA for the project is executed.

LERRD costs represent an NFS's estimated upfront direct and indirect financial costs in fulfilling its real estate responsibilities. The NFS receives credit for their actual associated costs if found to be reasonable, allowable, and allocable. They must document all their LERRD expenses (i.e., receipts, invoices, official certified timesheets, etc.) and submit to USACE for review and approval as part of their claim for credit.

The Sponsor's estimated LERRD costs is \$613,200.00, which represents their approximate upfront financial obligation in fulfilling their real estate responsibilities to implement the Recommended Plan. The Sponsor is aware of its requirement to document all LERRD expenses for its claim for credit.

## 12. Public Law 91-464, Uniform Relocation Assistance

Public Law 91-646 provides uniform equitable treatment of persons and businesses displaced by a Federal or Federally-assisted project. Along with the PPA, it requires the NFS to provide assistance and certain benefits to be paid to all persons and businesses that are displaced and must be relocated from their residence or place of business due to a Federally-funded project. The cost incurred by the NFS to provide relocation assistance is part of its LERRD responsibilities.

There are no anticipated relocations under PL 91-646 required for this project.

## 13. Mineral and Timber Activity

There are no known present or anticipated mineral extraction or timber harvesting activities within the LER required for the Recommended Plan.

## 14. Land Acquisition Experience and Capability of the Non-Federal Sponsor

The Sponsor's assessment of their real estate acquisition capabilities is provided in **Exhibit "C"**. The Sponsor has been identified as highly capable of performing or ensuring the performance of its real estate responsibilities. They possess the professional capability to acquire the real estate for the Recommended Plan and have sufficient general and legal authority to do so. The Sponsor has been advised of Public Law 91-646 requirements and the requirements for documenting expenses for credit purposes. The Sponsor has successfully acquired real estate for similar USACE cost-share projects, such the Government Ditch.

## 15. Land Use Zoning

No application or enactment of local zoning ordinances is anticipated in lieu of or to facilitate the Recommended Plan's LERRD requirements.

## 16. Schedule of Real Estate Acquisition

Table -3: Forecasted Real Estate Acquisition Schedule

| Milestone   | Date          |
|---|---------------|
| Execution of Project Partnership Agreement with Sponsor             | January 2022  |
| Notice to Proceed with Real Estate Acquisition furnished to Sponsor | January 2022  |
| USACE receives Authorization for Entry from Sponsor                 | February 2023 |
| USACE Certifies the Real Estate for the Recommended Plan            | March 2023    |
| USACE Commences with Advertising for Construction Contracts         | April 2023    |

## 17. Relocation of Facilities or Public Utilities

There are no facility or utility relocations anticipated within the project area at this time. The purpose of the project is to prevent any issues with the utilities so no relocations in the future will be necessary. However, a contingency for any possible facility/utility relocations requirements that may be identified in design and implementation have been accounted for in the total project costs and has been identified in the risk register.

## 18. Hazardous, Toxic, and Radioactive Waste (HTRW)

There are no known hazardous, toxic and radioactive waste materials at this time that would affect the implementation or operation of the Recommended Plan.

## 19. Project Support

There may be opposition from landowners of the existing private dock and two that are currently in the permitting process for construction. We are currently working with the Sponsor on a solution. The existing dock has an armored shoreline that could possibly tie into the construction of the Project. If the two other landowners receive permit approvals and build two new docks, unless the docks are constructed with an armored shoreline, they will have to be demolished prior to construction of the Project. Another option would be for the landowners to construct the new docks after the Project is constructed. The homeowners could then work with the Sponsor and USACE to obtain a consent to cross the project area for building purposes. We should make sure that there is communication and coordination with these landowners to ensure project success. The risk of landowner opposition to the project is greater if there is a requirement for pier demolition.

## 20. Risk Associated with Advanced Land Acquisition

The NFS has been advised of the risks associated with advance land acquisition activities, as indicated below, in a letter dated January 20, 2021.

Risks associated with advanced land acquisition include, but are not limited to, the following:

- Congress may not appropriate funds to construct the proposed project.
- The proposed project may otherwise not be funded or approved for construction.
- A Project Partnership Agreement (PPA) mutually agreeable to the NFS and the Government may not be executed and implemented.
- The NFS may incur liability and expense by virtue of its ownership of contaminated lands, or interests therein, whether such liability should arise out of local, state, or Federal laws, or regulations including liability arising out of Comprehensive Environmental Response Compensation and Liability Act (CERCLA), as amended.
- The NFS may acquire interests or estates that are later determined by the Government to be inappropriate, insufficient, or otherwise not required for the project.
- The NFS may initially acquire insufficient or excessive real property acreage which may
  result in additional negotiations and/or benefit payments under Public Law 91-646, as
  well as, the payment of additional fair market value to affected landowners which could
  have been avoided by delaying acquisition until after the PPA execution and the
  Government's notice to commence acquisition; and performance of LERRD.
- The NFS may incur costs or expenses in connection with its decision to acquire real
  estate interest and/or perform LERRD in advance of the executed PPA and the
  Government's notice to proceed which may not be creditable under the provisions of
  Public Law 99-662 or the PPA.

## 21. Recommendation

This report has been prepared in accordance with Corps of Engineers Regulation 405-1-12, Chapter 12. Recommend approval of this draft Real Estate Plan, that includes preliminary estimates of impacts, potential required property rights and interests, and a cost estimate based on identified limitations, factors, and assumptions as identified to the extent practicable at this time, be accepted for the purposes herein.

Prepared by:

ALICIA BARRETTE

Date

-04'00'

Realty Specialist

. .

CARRIER-

TAL,DONNA.L.12633

32039

Digitally signed by CARRIER-TAL.DONNA.L.1263332039

Date: 2021.06.25 19:46:34

Approved by:

DONNA CARRIER-TAL, ESQ

Date

Chief, Real Estate Office Real Estate Contracting Officer

EXHIBIT "A"



# EXHIBIT "B" REQUIRED ESTATES

#### BANK PROTECTION EASEMENT

A perpetual and assignable easement and right-of-way in, on, over and across the land hereinafter described for the location, construction, operation, maintenance, alteration, repair, rehabilitation and replacement of a bank protection works, and for the placement of stone, riprap and other materials for the protection of the bank against erosion; together with the continuing right to trim, cut, fell, remove and dispose therefrom all trees, underbrush, obstructions, and other vegetation; and to remove and dispose of structures or obstructions within the limits of the right-of-way; and to place thereon dredged, excavated or other fill material, to shape and grade said land to desired slopes and contour, and to prevent erosion by structural and vegetative methods and to do any other work necessary and incident to the project; together with the right of ingress and egress for such work; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however to existing easements for public roads and highways, public utilities, railroads and pipelines.

## TEMPORARY WORK AREA EASEMENT:

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. \_\_\_\_\_, \_\_\_\_ and \_\_\_\_\_), for a period not to exceed 1 year, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a work area, including the right to move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the James River Bank Stabilization Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

## EXHIBIT "C"

#### APPENDIX 12-E

# ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

## I. Legal Authority:

a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? (yes/no)

Yes. The City has and may exercise all powers which are now or may hereafter be conferred upon or delegated to cities under the Constitution and laws of the Commonwealth, pursuant to Section 2.01 of the City Charter issued by the Virginia General Assembly.

Article VII. Local Government, Sections 8 and 9 assume the right of the City to hold and manage its real property and impose conditions on the allowance of use and conveyance of interests in the City's real property.

Virginia Code Section 15.2-1800 indicates a locality may acquire by purchase, gift, devise, bequest, exchange, lease as lessee, or otherwise, title to, or any interests in any real property.

b. Does the sponsor have the power of eminent domain for this project? (yes/no)

Yes. Under Virginia Code Sections 15.2-1901, 15.2-1901.1 and 15.2-1902 localities have the power of condemnation for acquisition of (i) streets and roads, (ii) drainage facilities, (iii) water supply and sewage disposal systems, and any governmentally owned utilities. Restoration of the embankment would involve preservation of the road and any stormwater and City owned sanitary sewer facilities. As to ecosystem restoration, that might be one of the benefits but not the primary one. Localities also have a right of eminent domain to acquire property by eminent domain for purposes of prevention of pollution of water and for the purposes of erection of infrastructure to accomplish this goal. Va. Code Section 15.2-2109.

c. Does the sponsor have "quick-take" authority for this project? (yes/no)

Yes generally. Virginia Code Section 15.2-1902 and 15.2-1904.A. indicate that the City may use quick-take (Chapter 3 of Title 25.1, codified as Section 25.1-300, et seq.) for projects involving (i) streets and roads, (ii) drainage facilities, (iii) water supply and sewerage disposal systems, and (iv) oyster beds. Anything not within this enumerated purposes must use the slow take method (Virginia Code 25.1-200 et seq.).

The quick-take process requires that the City obtain an acquisition plat, an evaluation of value or appraisal if the interest is valued over \$25,000.00 (or if the owner demands an appraisal if the value is over \$10,000.00), a public meeting before City Council and an ordinance allowing acquisition voluntarily or by condemnation. A bona fide offer is then made. If the landowner accepts the offer, the take can take less that sixty days. If the offer is not accepted, a certificate of take must be filed after mandatory notices. The take occurs at that point. Our experience indicates that this process takes 120 to 150 days.

After this a petition for condemnation must be filed and the matter goes into litigation.

d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? (yes/no)

No. All lands within the project boundaries are located within the  $\operatorname{City}$  of  $\operatorname{Newport}$   $\operatorname{News}$ .

 Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? (yes/no)

None of the property to be acquired is owned by the federal government, the state government, other local government entities or a public service corporation with the power of eminent domain.

## II. Human Resource Requirements:

a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? (yes/no)

Yes, they are familiar with P. L. 91-646, and have experience through previous highway projects where the City received federal money. However, even with past experience, they may need a refresher and re-familiarize themselves with the process.

Currently there are no homeowner relocations anticipated for this project, however if this assessment changes in PED, the City is competent in completing this requirement as required.

b. If the answer to II.a. is "yes," has a reasonable plan been developed to provide such training? (yes/no)

Yes, the City would have a review of the federal statutes by anyone who will work on the property acquisitions.

c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? (yes/no)

Yes. They have handled eminent domain cases and voluntary real estate sales as required for the needs of the city on a regular basis. They have sufficient knowledge of real estate acquisitions from the years of experience.

d. Is the sponsor's projected in-house staffing level sufficient considering its other work load, if any, and the project schedule? (yes/no)

Yes, the staffing level is sufficient to accomplish the real estate requirements for this project.

e. Can the sponsor obtain contractor support, if required in a timely fashion? (yes/no)

Yes. Outside counsel and/or ROW agents can be brought in if necessary.

f. Will the sponsor likely request USACE assistance in acquiring real estate? (yes/no) (If "yes," provide description)

No, the City is capable of obtaining all the required real estate for the project.

## III. Other Project Variables:

Will the sponsor's staff be located within reasonable proximity to the project site? (yes/no)

Yes. They are located within four miles of the site.

Has the sponsor approved the project/real estate schedule/milestones? (yes/no)

Preliminary milestones have been received by the City. Currently the milestones are estimates, during PED the milestones will be established and the NFS will be involved in establishing them.

#### IV. Overall Assessment:

Has the sponsor performed satisfactorily on other USACE projects? (yes/no/not applicable)

Yes. The Government Ditch project is an example

b. With regard to this project, the sponsor is anticipated to be: highly capable/fully capable/moderately capable/marginally capable/ insufficiently capable. (If sponsor is believed to be "insufficiently capable, " provide explanation)

The NFS is anticipated to be highly capable in accomplishing obtaining the real estate requirements for this project.

#### Coordination:

- Has this assessment been coordinated with the sponsor? (yes/no) a.
- Does the sponsor concur with this assessment? (yes/no) (If "no," provide explanation

Prepared by:

Alicia Barrette Realty Specialist

Reviewed and approved by:

CARRIER-Digitally signed by CARRIER-TAL.DONNA.L.1263 TAL.DONNA.L.1263332039 Date: 2021.06.25 19:47:25

332039 -04'00'

Donna Carrier-Tal, Esq. Chief, Real Estate Office Real Estate Contracting Officer

## **ENGINEERING APPENDIX**

# James River Shoreline, Newport News, VA Continuing Authority Program, Section 14 Emergency Streambank & Shoreline Protection

## **APPENDIX C**

**AUGUST 2021** 



# **Table of Contents**

| 1.0 Stu | idy Area and Purpose                                     | 7  |
|---------|--|----|
| 2.0 De  | finitions  | 10 |
| 3.0 Exi | sting Site Conditions                                    | 15 |
| 4.0 Alt | ernatives  | 19 |
| 4.1.    | Focused Alternatives Array                               | 19 |
| 4.2.    | Alternatives Evaluation, Comparison, and Selection       | 20 |
| 4.3.    | Description of the Selected Plan Alternative             | 20 |
| 5.0 Hy  | draulics, Hydrology, & Coastal Analysis                  | 21 |
| 5.1.    | Tidal Datum and Astronomical Tides                       | 21 |
| 5.2.    | Historical Storms  | 22 |
| 5.3.    | Hydrology  | 25 |
| 5.4.    | Relative Sea Level Change (RSLC)                         | 29 |
| 5.5.    | Rates of Relative Sea Level Change                       | 29 |
| 5.6.    | Land Subsidence  | 33 |
| 5.7.    | Stillwater Elevations With and Without RSLC              | 34 |
| 5.8.    | Wind Climate   | 37 |
| 5.9.    | Wave Climate   | 39 |
| 5.10.   | Shoreline Change   | 43 |
| 6.0 Su  | rveying, Mapping, and Other Geospatial Data              | 45 |
| 6.1.    | Surveys & Mapping  | 45 |
| 6.2.    | Horizontal and Vertical Datums                           | 45 |
| 7.0 Ge  | otechnical Engineering Analysis                          | 46 |
| 7.1.    | Site Description   | 46 |
| 7.2.    | Regional Geology   | 46 |
| 7.3.    | General Subsurface Stratigraphy                          | 47 |
| 7.4.    | Geotechnical Engineering Evaluation of Alternatives      | 48 |
| 7.5.    | Geotechnical Engineering and Construction Considerations | 53 |
| 8.0 Alt | ernative Design Considerations                           | 57 |
| 8.1.    | Introduction   | 57 |
| 8.2.    | Alternative 1- Rock Sill with Vegetated Slope            | 57 |
| 8.3.    | Alternative 2- Full Rock Revetment                       | 59 |

| 8.4.  | Alternative 3- Partial Rock Revetment with Vegetated Slope            | 60            |
|-------|---|---------------|
| 8.5.  | Alternative 4- Living Shoreline with Vegetated Slope                  | 60            |
| 9.0 C | Cost Analysis   | 64            |
| 10.0  | Risk and Uncertainty  | 65            |
| 11.0  | Constructability  | 65            |
| 12.0  | Preconstruction Engineering and Design (PED) Consideration            | 68            |
| 12.1  | . Updated Surveys   | 68            |
| 12.2  | . Subsurface Geotechnical Exploration and Re-evaluation of Design Slo | ope Stability |
| 12.3  | . Design Refinements  | 69            |
| 12.4  | . Existing Pier Assumptions   | 69            |
| 13.0  | References  | 70            |
| 14.0  | List of Attachments   | 72            |
| Attac | chment 1: James River Newport News Alternative Quantity Summaries     | 73            |
| Attac | chment 2: Cost Estimate Sub Appendix                                  | 75            |
| Attac | chment 3: Focused Alternatives 10% Drawings                           | 108           |
| Attac | chment 4: GeoStudio Slope Stability Analysis                          | 114           |
| Attac | chment 5: Schnabel Geotechnical Report Provided by Newport News       | 12            |

# **List of Figures**

| Figure 1.1 Satellite image of project location (Image from Google Earth Pro)                   | 7   |
|--|-----|
| Figure 1.2 Satellite image of project vicinity (Image from Google Earth Pro)                   | 8   |
| Figure 1.3 Six Typical Shoreline Profiles around Chesapeake Bay (Hardaway and Byrne 1999)      | 9)9 |
| Figure 2.1 Typical Rock Revetment  | 10  |
| Figure 2.2 Stone sill with marsh planting on Chester River, Kent County, Md                    | 11  |
| Figure 2.3 Living shoreline behind rock sill in Newport News, VA                               |     |
| Figure 2.4 Example of Vegetated Slope in Newport News, VA                                      | 12  |
| Figure 3.1 Shoreline erosion from the top of the bank in the southern end of the project area  | 15  |
| Figure 3.2 Rip rap/debris at the toe of the existing slope                                     | 16  |
| Figure 3.3 Existing slope vegetation along the southern end of the project area                | 17  |
| Figure 3.4 Shoreline erosion and existing debris from the toe of the slope in the southern end |     |
| the project areathe  | 17  |
| Figure 3.5 Shoreline erosion from the top of the bank in the northern end of the project area  | 18  |
| Figure 3.6 Private pier and existing rock stabilization within project area                    | 18  |
| Figure 5.1 Location of Sewells Point Gauge compared to project site                            | 21  |
| Figure 5.2 Sewells Point Datum Diagram   |     |
| Figure 5.3 Project Location Datum Diagram  | 22  |
| Figure 5.4 Predicted vs. Verified water levels during Hurricane Isabel in 2003                 | 24  |
| Figure 5.5 Predicted vs. Verified water levels during Hurricane Sandy in 2012                  | 24  |
| Figure 5.6 Predicted vs. Verified water levels during Hurricane Dorian in 2019                 | 25  |
| Figure 5.7 Average Monthly Precipitation in Newport News                                       | 25  |
| Figure 5.8 TR Reference Map  |     |
| Figure 5.9 Summary Matrix of Observed and Projected Climate Trends                             | 28  |
| Figure 5.10 NOAA Sea Level Trend at Sewells Point (access May 15, 2020)                        | 29  |
| Figure 5.11 Relative Sea Level Rise Curves from USACE calculator                               | 31  |
| Figure 5.12 Historical Sea Level Rise with USACE SLC Scenarios for Sewells Point (86386        | 10) |
| for the entire period of record  | 33  |
| Figure 5.13 Historical Sea Level Rise with USACE SLC Scenarios for Sewells Point (86386        |     |
| for the years 2000 - 2020  |     |
| Figure 5.14 NACCS model save points near the project location                                  |     |
| Figure 5.15 NACCS Stillwater elevations for Save Point 17351                                   |     |
| Figure 5.16 Location of DOMV2 Gauge compared to project site                                   | 38  |
| Figure 5.17 IEM Windrose Plot for DOMV2  |     |
| Figure 5.18 Iso-wave Height Contours in James River, VA (Basco and Shin, 1993)                 |     |
| Figure 5.19 Spatial Distribution of (A) Wave Height Vectors and (B) Peak Wave Period Vectors   |     |
| during Peak of Hurricane Isabel (2003) in Front of Project Site (Coordinates: WGS1984, U       |     |
| 18N Projection System) (CH2MHILL 2013)   |     |
| Figure 5.20 Erosion Factor as a function of wind speed for different water elevation (Faghera  |     |
| and Wiberg 2009)   |     |
| Figure 5.21 Google Earth Image showing the change in shoreline                                 |     |
| Figure 7.1 LiDAR River Bank Profiles   |     |
| Figure 7.2 Location of river bank profiles Arc 1 through 7                                     | 49  |

| Figure 7.3 Alternative 1 Design Concerns   | 55   |
|--|------|
| Figure 7.4 Alternative 3 Design Concern  | 55   |
| Figure 8.1 Results from CEDAS: ACES Run  | 58   |
| Figure 8.2 Results from CEDAS: ACES Run for Wave Runup and Overtopping at NACCS      | 1 YR |
| Event  | 59   |
| Figure 8.3 Salient Formation Diagram (Image courtesy of CEM V-3-21)                  | 61   |
| Figure 8.4 Dimensionless plot of nearshore breakwater projects for Y/ds versus Ls/Lg | 62   |
| Figure 8.5 Location of Kettle Pond Relative to this Project                          | 63   |
| Figure 11.1 Potential Laydown Areas  | 66   |
|  |      |

# **List of Tables**

| Table 2.1 Saffir-Simpson Hurricane Scale  | 13      |
|---|---------|
| Table 5.1 Historical Storm Events   | 23      |
| Table 5.2 Estimated Increase in Relative Sea Level Rise Rates (in feet)                   | 32      |
| Table 5.3 Extreme Surge Levels and Total Water Levels at Sewells Point Station based o    | n Data  |
| from 1960 to 2011 (CH2MHILL 2013)   | 34      |
| Table 5.4 NACCS Mean (50%) and 98% Confidence Limits Stillwater elevations for Save       | e Point |
| 17351 Adjusted to Present Day   | 36      |
| Table 5.5 Additional Increase in SLR predicted 20 years, 50 years, and 100 years into the | future  |
| (in feet) from project start year of 2022 to 2122.  | 37      |
| Table 5.6 NACCS Wave Heights  | 42      |
| Table 7.1 Generalized Subsurface Soil Properties Used in GeoStudio Analysis               | 51      |
| Table 7.2 Soil Properties for Additional Materials Used in GeoStudio Analysis             | 52      |
| Table 7.3 GeoStudio Slope Stability Analysis Results                                      | 53      |
| Table 8.1 Conditions for the Formation of Salient (Table V-3-6 from the CEM)              | 61      |
| Table 11.1 Monthly Anticipated Adverse Weather Delay Work Days Based on (5) day Work      | (Week   |
|   | 67      |

## 1.0 Study Area and Purpose

The City of Newport News is located in eastern Virginia adjacent to the Chesapeake Bay and about 65 miles southeast of Richmond. The project area is located entirely within the City along the north bank of the James River, west of the James River Bridge (US Routes 17/258) and between Newmarket Creek and North Avenue, immediately adjacent to River Road. An approximately 600-foot section of riverbank along the James River is severely eroded by the combined effects of natural erosion processes; river flow, water level rise, and tidal, storm, and wind driven wave action. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land, threatening existing public utilities, including River Road, electric, gas, communications, public water and sewer lines, as well as creating dangerous conditions associated with the steep slope.

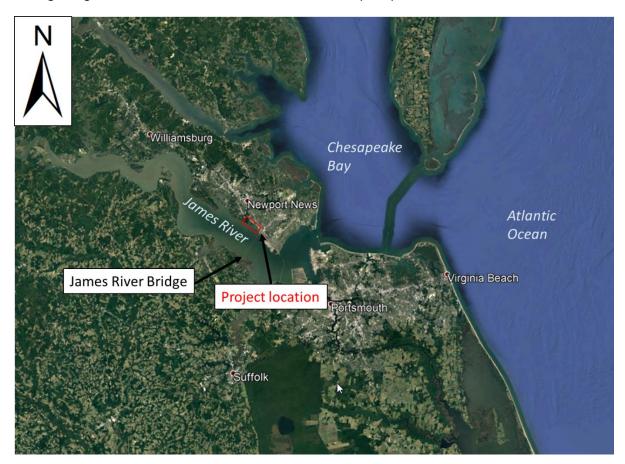


Figure 1.1 Satellite image of project location (Image from Google Earth Pro)



Figure 1.2 Satellite image of project vicinity (Image from Google Earth Pro)

The tidal shorelines of the Chesapeake Bay are generally classified into six basic types depending on the height of the upland banks (**Figure 1.3**). The stability of the bank face is dependent upon the width and type of shore zone features. Wide soft engineering features such as beaches/dunes and marsh zones can offer significant wave protection even during storms (Hardaway and Byrne 1999). The project area best fits into the High Bank type of shoreline, where upland elevation is greater than 10 feet above mean low water. Bank erosion takes place at the shoreline and higher up the bank, where wave and storm surge action during hurricanes cause bank erosion and slumping from wave undercutting and can threaten the high bank, or bluff. Thus, any shoreline protection measures should consider stabilizing not only the lower shoreline but the slope of the bank as well.

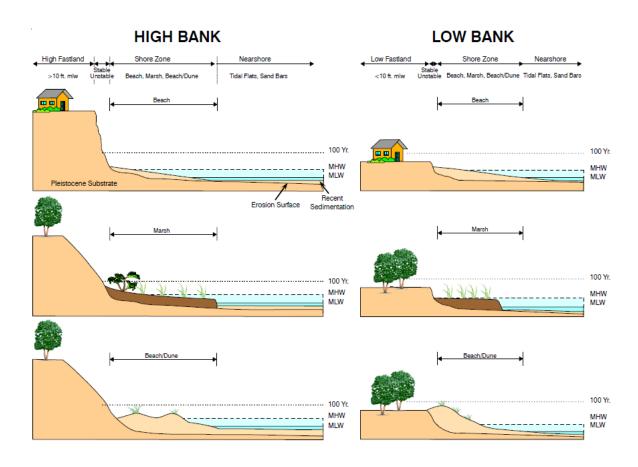


Figure 1.3 Six Typical Shoreline Profiles around Chesapeake Bay (Hardaway and Byrne 1999)

The purpose of the study is to evaluate the site, identify options for bank stabilization measures, and recommend a preferred alternative for the project.

## 2.0 **Definitions**

Below are definitions to words that are used in this analysis.

Revetments (Figure 2.1) are shoreline/river bank armoring systems that protect the base of eroding river banks and upland shorelines. They are by far the most common means of shoreline/river bank defense currently in use within the study area. Revetments are typically placed atop a graded slope. This slope may be achieved by excavating eroding banks in a landward direction (commonly referred to as bank "layback") or via the placement of fill materials in a seaward direction or by a combination of both cut and fill. The dimensions of the revetment are dependent on existing bank conditions and design parameters such as storm surge and wave height. These parameters also determine the size of the stone required for long-term structural integrity. Generally, two interlocking faces of armor stone are laid over a bedding stone layer with filter cloth between the earth sub-grade and the bedding layer. The size of materials used within the revetment depends on the typical storm surge and wave heights experienced at the location.



Figure 2.1 Typical Rock Revetment

Sills (Figure 2.2) combine elements of rock revetments and offshore breakwaters. Rock sills generally have a "free standing" cross section similar to breakwaters, however they are usually smaller than breakwaters. Rock sills are typically built parallel and close to shore and are usually continuous. Sills may be used in higher wave energy environments to establish intertidal marsh grasses in the lee of the sill. The dimensions of the sills are dependent on existing bank conditions and design parameters such as storm surge and wave height. These parameters also determine the size of the stone required for long-term structural integrity. Generally, two interlocking faces of armor stone are laid over a core stone layer with filter cloth between the earth sub-grade and the core layer. The size of materials used within

the revetment depends on the typical storm surge and wave heights to be protected against at the location (Hardaway and Byrne 1999).

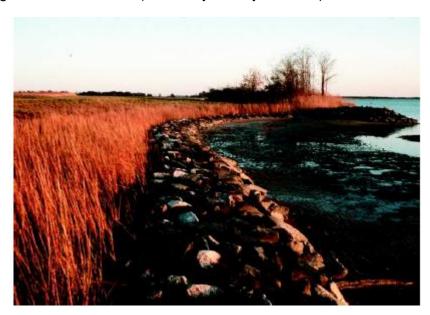


Figure 2.2 Stone sill with marsh planting on Chester River, Kent County, Md.

• <u>Living Shoreline</u> (Figure 2.3) is a broad term that encompasses a range of shoreline stabilization techniques along estuaries, bays, and other generally sheltered shorelines. A living shoreline incorporates natural vegetation or other living, natural, "soft" elements alone or in combination with some type of harder shoreline structure, like oyster reefs, rock sills, or anchored large wood for added stability. Figure 2.3 is an example of a living shoreline constructed fairly recently along the James River shoreline approximately 2.3 miles north of the project site.



Figure 2.3 Living shoreline behind rock sill in Newport News, VA.

• <u>Vegetated Slope</u> is term used in this report to describe a slope, typically located up in the higher bank of a shoreline above a rock structure planted with native grasses.



Figure 2.4 Example of Vegetated Slope in Newport News, VA.

- <u>Fetch</u> is the distance of open water over which wind can blow and generate waves in an areas. The greater the fetch, the greater the potential wave energy (Hardaway and Byrne 1999).
- <u>Low energy shorelines</u> have average fetch exposures of less than 1 nautical mile and are often found along tidal creeks and small tributary rivers (Hardaway and Byrne 1999).
- <u>Medium energy shorelines</u> typically occur along the main tributary estuaries with average fetch exposures of 1 to 5 nautical miles (Hardaway and Byrne 1999).
- <u>High energy shorelines</u> average fetch exposures of over 5 nautical miles. These occur along the main stem of the bay and at the mouths of tributary estuaries (Hardaway and Byrne 1999).
- <u>Tropical Storm</u> refers to a localized intense cyclonic circulation, intense low pressure wind system, forming over tropical oceans with high winds above 39 miles per hour (mph) to 73 mph, heavy rainfall, large waves, and tidal surges.
- <u>Hurricane</u> is a term applied to an intense cyclonic storm originating in the tropical and subtropical latitudes of the Atlantic Ocean north of the equator. These storms normally gain intensity as they pass over land or move into the northern latitudes, where conditions are such that the energy of the storm cannot be maintained. A hurricane is characterized by low barometric pressure, high winds (over 74 mph), heavy rainfall, large waves, and tidal surges. Intensity of hurricanes are classified and rated based on the Saffir-Simpson Hurricane Scale. A 1-5 rating system is used where Category 5 being the most intense and Category 1 being the least intense.

Table 2.1 Saffir-Simpson Hurricane Scale

| CATEGORY | WIND (MPH) | WIND (MPH)   |
|----------|------------|--------------|
| 5        | >156       | Catastrophic |
| 4        | 131 – 155  | Extreme      |
| 3        | 111 – 130  | Extensive    |
| 2        | 96 – 110   | Moderate     |
| 1        | 74 - 95    | Minimal      |

• Northeaster (also Nor'easter) is the term given to storms that occur during the fall, winter, and spring months along the Atlantic Coast. A Northeaster is characterized by high winds circulating around an essentially stationary low pressure, producing high tides, large waves, and heavy rainfall along the coast. Like all cyclonic winds systems in the northern hemisphere, the wind direction is always rotating inward and counter-

clockwise about the low pressure area. Typically, winds originate from the northeast quadrant relative to this area, hence the term "northeaster." Northeasters sometimes develop into complex storms with more than one influencing pressure cell. The location of high pressure centers and low pressure centers with respect to each other may greatly intensify the wind speeds that would be expected from a single storm cell. Strong winds reaching almost hurricane strength may occur over many thousands of square miles. Northeasters may form with little or no advance warning and have been known to persist for as long as a week to ten days; however, the average duration of a northeaster is only about two or three days.

## 3.0 Existing Site Conditions

The Project Delivery Team (PDT) visited the project site two times. Photos of erosion along the shoreline, existing riprap/debris at the toe of the existing slope, trees and existing vegetation on the steep slopes are shown in **Figure 3.1** to **Figure 3.6**. A private pier is also located within the project. All the alternatives developed during this study assume the private pier will remain in place and shoreline stabilization will take place on either side of the existing private pier. This decision was made as the during the site visits a rock sill (along the shoreline underneath the pier) and concrete stairs were observed as existing shoreline stabilization at this property. For the purposes of this feasibility study, it is assumed that all the alternatives in this report will be able to tie in to the existing rock and stabilized slope (**Figure 3.6**) along this private property. This assumption will need to be verified during PED as well as the size of the existing rock in this location confirmed. See the Real Estate Plan for more information regardingthe private properties along the project shorelines.



Figure 3.1 Shoreline erosion from the top of the bank in the southern end of the project area

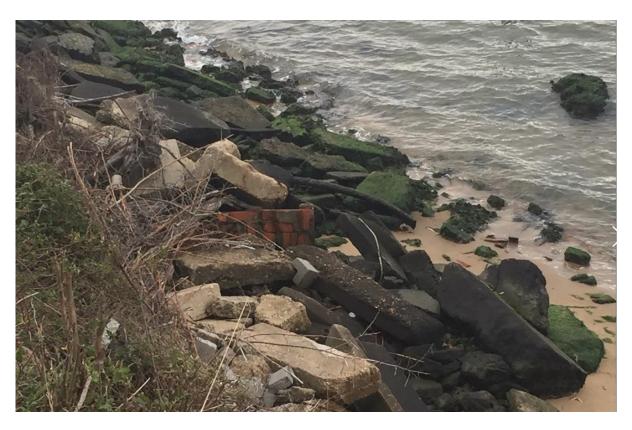


Figure 3.2 Rip rap/debris at the toe of the existing slope



Figure 3.3 Existing slope vegetation along the southern end of the project area

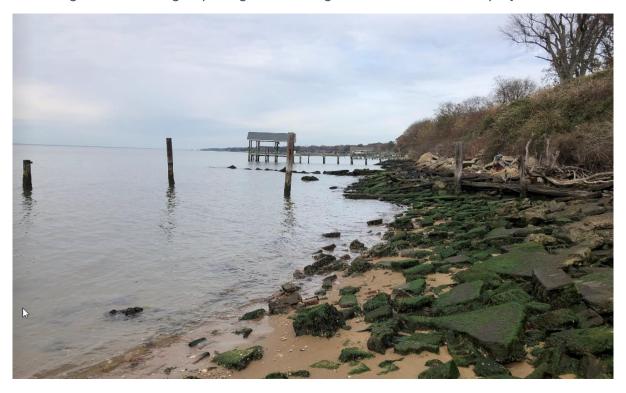


Figure 3.4 Shoreline erosion and existing debris from the toe of the slope in the southern end of the project area



Figure 3.5 Shoreline erosion from the top of the bank in the northern end of the project area



Figure 3.6 Private pier and existing rock stabilization within project area

#### 4.0 Alternatives

## 4.1. Focused Alternatives Array

The Engineering Team members assisted the Planning and Environmental team members during the Plan Formulation process. This included the Planning Objectives, Preliminary Plan Formulation, including the No-Action Alternative and Alternatives consisting of different elements. The formulation considered three general types of shoreline erosion control solutions:

- "Hard" or structural solution (i.e. seawall or stone revetment)
- "Soft" or "natural" solution (i.e. beach nourishment and vegetative planting aimed at stabilizing soil
- "Hybrid" solution (i.e. combination of structural and soft elements)

Hard control methods can have serious negative effects on the natural environment compared to the other solutions. On the other hand, soft methods often cannot provide long-term control in high-energy wave environments. Hybrid methods attempt to incorporate the strengths of both categories and have recently become popular at several sites along the Chesapeake Bay estuary. The hybrid category known as "living shorelines" combines both soft and hard erosion control measures.

For this site, both "hard" and "hybrid" erosion control alternatives were considered based on experience with similar projects in the Chesapeake Bay area, as well as by evaluating other shoreline stabilization projects along the James River shoreline in the vicinity of the project site. It is believed that the "soft" erosion control option would not be feasible for this site since erosion is taking place in front of a high bluff, mostly during moderate wave and high water levels within the project reach. It is also believed that as the adjacent shorelines to the project site are already hardened with revetments and rock sills that the structural solutions will not negatively impact the existing shoreline environment. All alternatives consider stabilizing not only the lower shoreline but the slope of the bank as well.

The following is a description of the final array of alternatives:

- 1) Alternative 0- No Action.
  - No action would be taken in this study area.
- 2) Alternative 1- Rock sill with vegetated slope
  - Rock sill at the bottom of the slope constructed to an elevation of +5 ft NAVD88 and biodegradable erosion control blankets from the top of the rock sill to the top of the shoreline bank (approximately +25 ft NAVD88)
- 3) Alternative 2- Full rock revetment
  - Rock revetment constructed along the full slope and bank of the shoreline (approximately +25 ft NAVD88)
- 4) Alternative 3- Partial rock revetment with vegetated slope
  - Rock revetment construction to an elevation of +10 ft NAVD88 and biodegradable erosion control blankets from the top of the partial revetment to the top of the shoreline bank (approximately +25 ft NAVD88)
- 5) Alternative 4- Living Shoreline with vegetated slope

 Offshore rock sills constructed to an elevation of +5 ft NAVD88, placement of clean sand fill and planting of Spartina alternifora (Smooth/saltmarsh Cordgrass) and Spartina patens (Saltmeadow cordgrass), and biodegradable erosion control blankets from the top of the wetland fill to the top of the shoreline bank (approximately +25 ft NAVD88)

More information regarding the design considerations for each alternative is provided in the subsequent paragraphs in this Appendix.

## 4.2. Alternatives Evaluation, Comparison, and Selection

Quantities and costs were developed for each alternatives (shown in **Attachment 1: James River Newport News Alternative Quantity Summaries**). This was done using available existing LiDAR data, hydrographic survey data, historical dredging data, and engineering and environmental assumptions. From this information costs were developed, the Least Cost Alternative from the array was chosen as the selected plan.

## 4.3. **Description of the Selected Plan Alternative**

The selected plan is Alternative 1. This plan consists of constructing a continuous rock sill along parallel to the existing shoreline with a crest elevation of +5 ft NAVD88, crest width of 5 ft, and installing biodegradable erosion control blankets from the top of the rock sill to the top of the shoreline bank on a 1V:3H slope to create a vegetated slope. It is estimated that this alternative will require approximately 2900 tons of VDOT Class III riprap, 800 tons of VDOT No. 1 Stone, 4300 CY of fill, 1600 SY of geotextile filter fabric, 700 CY of debris removal, and 35,000 SF of biodegradable erosion control blankets.

## 5.0 Hydraulics, Hydrology, & Coastal Analysis

## 5.1. Tidal Datum and Astronomical Tides

The tidal data record available for the project shoreline is the National Oceanographic and Atmospheric Administration (NOAA) Sewells Point VA tide gauge. The Sewells Point Gauge (Station ID: 8638610) is approximately ten miles inside the Chesapeake Bay located on Naval Station Norfolk in the vicinity of Pier 6 from Decatur Avenue at Latitude 36° 56.8' N and Longitude 76° 19.8' W. The gauge is located approximately 9.5 miles from the project.

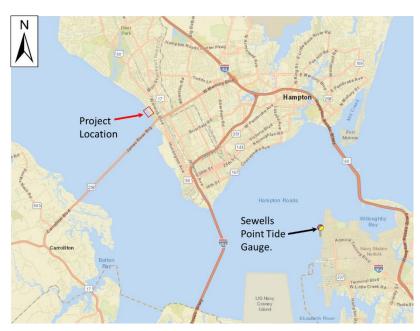


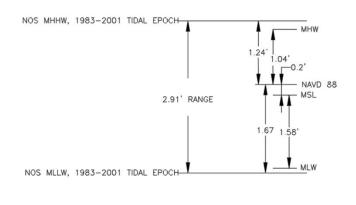
Figure 5.1 Location of Sewells Point Gauge compared to project site

The Sewells Point Gauge was established in July 1, 1927 with the present reinstallation on December 11, 1995. Historical trends are determined using measurement data from tide gauge records. All tide levels at Sewells Point have increased from the year that the tide level was initially recorded and account for past, present, and anticipated future increase in sea level. The tides in the study area are semi-diurnal, with a mean tide range of approximately 2.43 ft at the gauge and spring tide range of 2.76 ft (**Figure 5.2**). NOAA's Vertical Datum Transformation (VDatum) software was used to calculate the datums at the project site (**Figure 5.3**). Both datum diagrams are relative to NAVD88.

# Datums for 8638610, Sewells Point, VA All figures in feet relative to NAVD88 MHHW: 1.15 **DHQ**: 0.2 MHW: 0.95 0.5 NAVD88: 0 MSL: -0.25 MTL: -0.23 GT: 2.76 MN: 2.43 0.5 MLW: -148 1.5 MLLW: -1.61 DLQ: 0.12 Datun

Figure 5.2 Sewells Point Datum Diagram

NOAA/NOS/CO-OPS



DATUM DIAGRAM
1983-2001 NTDE

PROJECT SITE LOCATION (LONGITUDE: -76.460853, LATITUDE: 37.023014) NAVD88 - NOS MLW DATUM DIFFERENCE DERIVED BY NOAA VDATUM MODEL.

Figure 5.3 Project Location Datum Diagram

## 5.2. Historical Storms

Three general types of major storms affect the Chesapeake Bay area of Hampton Roads in the form of tropical storms, hurricanes and northeasters. **Table 5.1** displays the date of historical storm events where the water surface elevations reached over 4.0 ft NAVD 88, the type of storm,

and the peak water surfaces elevations. The peak water surface elevations were measured by the NOAA – Sewells Point tide gauge and reference to NAVD 88.

Table 5.1 Historical Storm Events

|    | Storm Event- Date & Name   | Type of Storm  | Peak Water Surface<br>Elevations (in feet<br>NAVD88) |
|----|----------------------------|----------------|--|
| 1  | August 1933 (No Name)      | Hurricane      | 6.41   |
| 2  | September 1933 (No Name)   | Hurricane      | 4.51   |
| 3  | September 1936 (No Name)   | Hurricane      | 5.11   |
| 4  | April 1956 (No Name)       | Northeaster    | 4.71   |
| 5  | March 1962 (Ash Wednesday) | Northeaster    | 5.61   |
| 6  | April 1978 (No Name)       | Northeaster    | 4.74   |
| 7  | February 1998              | Northeaster    | 4.93   |
| 8  | September 1999 (Floyd)     | Hurricane      | 4.37   |
| 9  | September 2003 (Isabel)    | Hurricane      | 6.28   |
| 10 | October 2006               | Northeaster    | 4.92   |
| 11 | November 2009 (Nor'lda)    | Northeaster    | 6.13   |
| 12 | December 2009              | Northeaster    | 4.5  |
| 13 | August 2011 (Irene)        | Hurricane      | 5.94   |
| 14 | October 2012 (Sandy)       | Hurricane      | 5.2  |
| 15 | October 2015 (Joaquin)     | Hurricane      | 4.89   |
| 16 | September 2016 (Hermine)   | Tropical Storm | 4.55   |
| 17 | October 2016 (Matthew)     | Hurricane      | 4.25   |
| 18 | September 2019 (Dorian)    | Hurricane      | 4.17   |

**Figure 5.4** thru **Figure 5.6** are plots of the water surface elevation (the predicted versus the verified water levels) measured at the NOAA – Sewells Point Gage, during some of the storm events shown in **Table 5.1**. The peaks shown in the figures are what is shown in the **Table 5.1**.

The largest storm event that has occurred in the past 20 years was Hurricane Isabel in 2003 which produce a maximum water level of 6.28 ft NAVD 88.

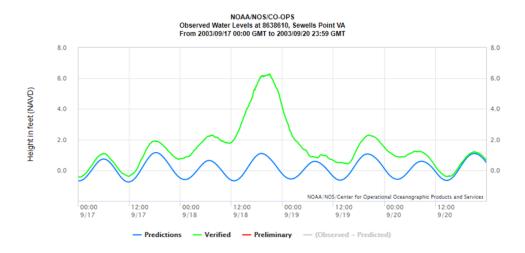


Figure 5.4 Predicted vs. Verified water levels during Hurricane Isabel in 2003

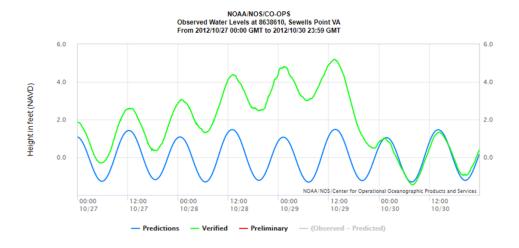


Figure 5.5 Predicted vs. Verified water levels during Hurricane Sandy in 2012

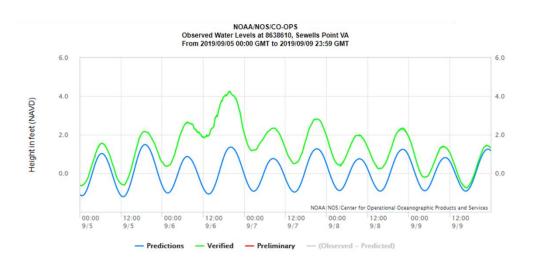


Figure 5.6 Predicted vs. Verified water levels during Hurricane Dorian in 2019

## 5.3. Hydrology

Hydrologic processes are very sensitive to changes in temperature, which can affect the form of precipitation (rain and snow). Precipitation intensity and volume are also affected, along with the timing and volume of runoff, and the conditions that cause or enhance drought. Occasionally, during brief periods, the climatic conditions vary due to storms of both extra-tropical and tropical origin. **Figure 5.7** displays the average monthly precipitation amount for the City of Newport News.

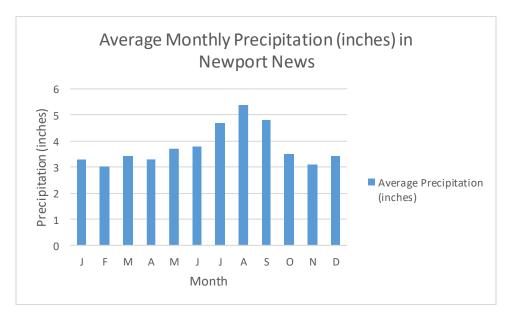


Figure 5.7 Average Monthly Precipitation in Newport News

The USACE May 2015 Civil Works Technical Report, CWTS-2015-09 for the Mid-Atlantic Region of the U.S., focuses on temperature, extreme precipitation events, stream flow trends and future findings. The report encompasses the HUC 02 region and also indicates the HUC 04 boundaries within (see **Figure 5.8**). The technical reports states that air temperatures in the Mid-

Atlantic region will increase over the next century and predicts that the mean air temperature will be increased anywhere from 4.5 degrees to 10°F. The report continues that projections of precipitation and hydrology in the study region are less certain than those associated with air temperature. However, the majority of the studies performed in this HUC region projected increases in precipitation and streamflow through the 21st century. Extreme high events (storms and floods) are projected to increase in the future. Low flows, however, have been projected to increase in the future as a result of the projected temperature increases. This is summarized in **Figure 5.9** which is a matrix of observed and projected climate trends from CWTS-2015-09.

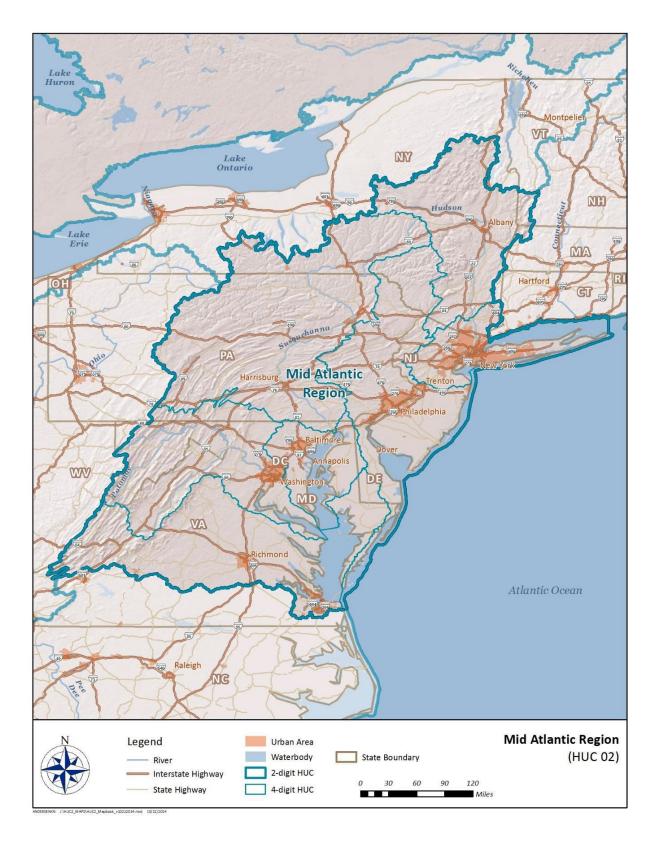
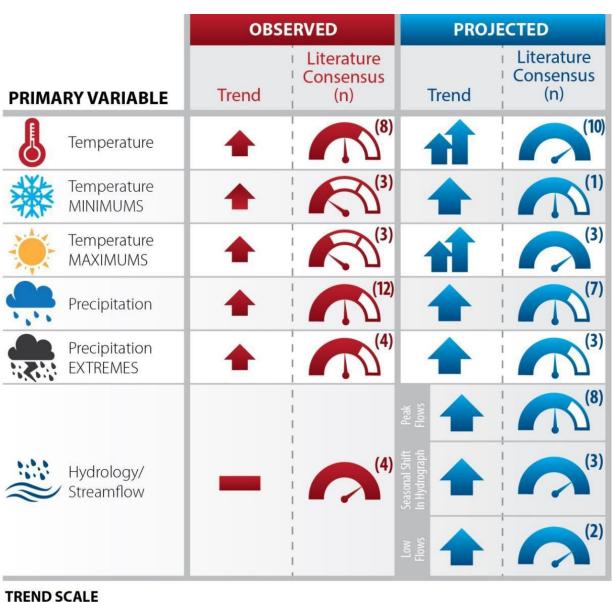


Figure 5.8 TR Reference Map





## LITERATURE CONSENSUS SCALE



Figure 5.9 Summary Matrix of Observed and Projected Climate Trends

# 5.4. Relative Sea Level Change (RSLC)

Relative (local) SLC is the local change in sea level relative to the elevation of the land at a specific point on the coast. Relative SLC is a combination of both global and local SLC caused by changes in estuarine and shelf hydrodynamics, regional oceanographic circulation patterns (often caused by changes in regional atmospheric patterns), hydrologic cycles (river flow), and local and/or regional vertical land motion (subsidence or uplift). RSLC is predicted to continue in the future as the global climate changes. According to National Oceanographic and Atmospheric Administration (NOAA), RSLC for the Sewells Point tide gauge averages 0.0154 feet per year (4.7 mm/year) (Figure 5.10). Additionally, USACE Engineer Regulation (ER) 1100-2-8162 "Incorporating Sea Level Change in Civil Works Programs", provides guidance that documents how to incorporate RSLC into civil works and explains the three different accelerating eustatic (worldwide changes in sea level) SLR scenarios (USACE 2019a). These include a conservative scenario (historic rate of sea level change), an intermediate scenario and a high scenario. Figure **5.10** shows a plot of the monthly mean sea level at the Sewells Point tide gage. The average seasonal cycle is removed and monthly average (represented by the blue curve) is represented along with the linear trend with its 95% confidence interval. This was obtained after accounting for the average seasonal cycle. The plotted values are relative to the 1983-2001 mean sea level datum.

#### 8638610 Sewells Point, Virginia 8638610 Sewells Point, Virginia 4.70 +/- 0.22 mm/yr 0.60 Linear Relative Sea Level Trend Upper 95% Confidence Interval ower 95% Confidence Interval Monthly mean sea level with the 0.30 average seasonal cycle removed 0.15 Meters 0.00 -0.15 -0.30 -0.451920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 EXPORT TO TEXT EXPORT TO CSV SAVE IMAGE The relative sea level trend is 4.7 millimeters/year with a 95% confidence interval of +/- 0.22 mm/yr based on monthly mean sea level data from

Relative Sea Level Trend

Figure 5.10 NOAA Sea Level Trend at Sewells Point (access May 15, 2020)

1927 to 2019 which is equivalent to a change of 1.54 feet in 100 years.

## 5.5. Rates of Relative Sea Level Change

USACE Sea Level Change Curve Calculator (based on information from ER 1100-2-8162) was used to observe the increase rate in RLSC. The calculator tool is used to observe not only the low curve rate of RSLC, but also the intermediate curve rates and high curve rates.

The historic rate of future RSLC (or USACE Low Curve) is determined directly from NOAA gauge data gathered in the vicinity of the project area. The intermediate rate (or USACE Intermediate Curve) of local mean RSLC is estimated by considering the modified National Research Council (NRC) projections and adding the appropriate value to the local rate of vertical land movement. The intermediate rate of relative (local) sea level rise is based on the modified NRC Curve I, since its value is comparable to that of the IPCC projection. NRC Curve I is based on the general equation  $E(t) = 0.0017t + bt^2$ , where the constant 0.0017 = the IPCC 2007 annual rate of eustatic RSLC in meters;

t = time in years (relative to the year when the curves were developed) and;

 $b = 2.71E^{-5}$ .

The high rate (or USACE High Curve) of mean RSLC is estimated by determining the modified NRC Curve III value and adding it to the local rate of vertical land movement. This high rate scenario exceeds the 2001 and 2007 IPCC projections and considers the potential rapid loss of ice from Antarctica and Greenland. NRC Curve III is also based on the general equation  $E(t) = 0.0017t + bt^2$ ; however, the constant "b" changes to  $b = 1.13E^{-4}$ .

For both the intermediate and high rates of RSLC, the NRC curves accelerate upward over time beginning in the year 1992 when the curves were developed; therefore, it is necessary to estimate RSLC for a particular time horizon relative to 1992. Engineer Pamphlet (EP) 1100-2-1 "Procedures to Evaluate Sea Level Change: Impacts, Responses and Adaptation", recommends analyzing the effects of RSLC on the project at three future time periods post construction. Figure 5.11 shows an image of the RLSC low, intermediate, and high curve from 1992, which corresponds to the midpoint of the current National Tidal Datum Epoch of 1983-2001 and thus the year of the current datums, through the year 2122 as this is estimated to be 100 years post construction. The historic rate of relative sea level rise measured at the Sewells Point tide gage, 0.0154 feet per year (4.7 mm/year), was entered in the calculator to obtain the rates and curves. **Table 5.2** shows the computed SLC rates (relative to 1992) from the present year and the years that follow per the construction schedule stated in the alternatives description. USACE Civil Works projects are required to incorporate and consider the intermediate RLSC rates for plan formulation, as well as the low and high rates for sensitivity analysis.

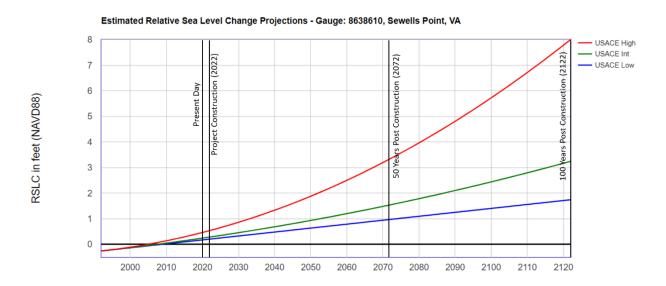


Figure 5.11 Relative Sea Level Rise Curves from USACE calculator.

Table 5.2 Estimated Increase in Relative Sea Level Rise Rates (in feet).

| Estimated Relative Sea Level Change |   |       |       |  |  |  |  |  |
|-------------------------------------|---|-------|-------|--|--|--|--|--|
| from 1992 To 2122                   |   |       |       |  |  |  |  |  |
| 8638610, Sewells Point, VA          |   |       |       |  |  |  |  |  |
| User Def                            | User Defined Rate: 0.0154 feet/yr                 |       |       |  |  |  |  |  |
| All values are ex                   | All values are expressed in feet relative to LMSL |       |       |  |  |  |  |  |
| Year                                | USACE   | USACE | USACE |  |  |  |  |  |
| icai                                | Low   | Int   | High  |  |  |  |  |  |
| 1992                                | 0   | 0     | 0     |  |  |  |  |  |
| 2020                                | 0.43  | 0.5   | 0.72  |  |  |  |  |  |
| 2022                                | 0.46  | 0.54  | 0.8   |  |  |  |  |  |
| 2027                                | 0.54  | 0.65  | 0.99  |  |  |  |  |  |
| 2032                                | 0.62  | 0.76  | 1.21  |  |  |  |  |  |
| 2037                                | 0.69  | 0.87  | 1.44  |  |  |  |  |  |
| 2042                                | 0.77  | 0.99  | 1.7   |  |  |  |  |  |
| 2047                                | 0.85  | 1.12  | 1.97  |  |  |  |  |  |
| 2052                                | 0.92  | 1.24  | 2.26  |  |  |  |  |  |
| 2057                                | 1   | 1.38  | 2.57  |  |  |  |  |  |
| 2062                                | 1.08  | 1.51  | 2.9   |  |  |  |  |  |
| 2067                                | 1.16  | 1.66  | 3.24  |  |  |  |  |  |
| 2072                                | 1.23  | 1.8   | 3.61  |  |  |  |  |  |
| 2077                                | 1.31  | 1.95  | 3.99  |  |  |  |  |  |
| 2082                                | 1.39  | 2.11  | 4.39  |  |  |  |  |  |
| 2087                                | 1.46  | 2.27  | 4.81  |  |  |  |  |  |
| 2092                                | 1.54  | 2.43  | 5.25  |  |  |  |  |  |
| 2097                                | 1.62  | 2.6   | 5.7   |  |  |  |  |  |
| 2102                                | 1.69  | 2.77  | 6.18  |  |  |  |  |  |
| 2107                                | 1.77  | 2.95  | 6.67  |  |  |  |  |  |
| 2112                                | 1.85  | 3.13  | 7.19  |  |  |  |  |  |
| 2117                                | 1.93  | 3.31  | 7.72  |  |  |  |  |  |
| 2122                                | 2.00  | 3.51  | 8.27  |  |  |  |  |  |

The Sea Level Tracker tool was used to visualize the observed changes in sea level and to compare trends to the projected sea level changes per USACE Engineer Regulation 1100-2-8162 and Engineer Pamphlet (EP) 1100-2-1. The tool shows the historical, observed changes in mean sea level (MSL) as measured and reported for National Oceanic Atmospheric Administration (NOAA) tide gauges, mapped against the USACE sea level change (SLC) projections. Taken together, the tool enables the comparison of actual SLC with USACE SLC projections (as described in ER 1100-2-8162), along with observed monthly water levels and the computation of SLC trends based on historical data (Sant-Miller et al, 2018). Figure 5.12 and Figure 5.13 displays the results of this tool, comparing actual SLC for the 19-year (metonic cycle) midpoint moving average (dark blue line) and 5-year midpoint moving average (orange line) against the USACE SLC curve projections for the entire period of record and for the entire period of record (Figure 5.12) and for only the past 20 years (Figure 5.13). The observed 19-year moving average is tracking along the intermediate SLC scenario while the 5-year moving average fluctuates more between the intermediate and high scenario since 2010.

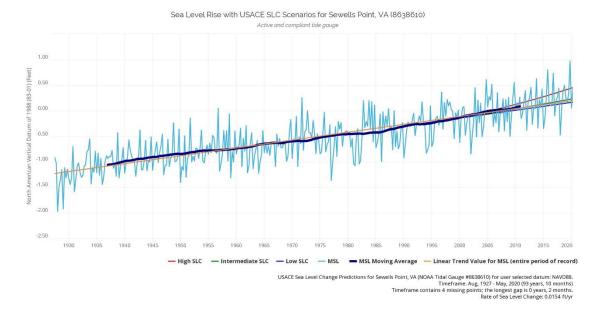


Figure 5.12 Historical Sea Level Rise with USACE SLC Scenarios for Sewells Point (8638610) for the entire period of record

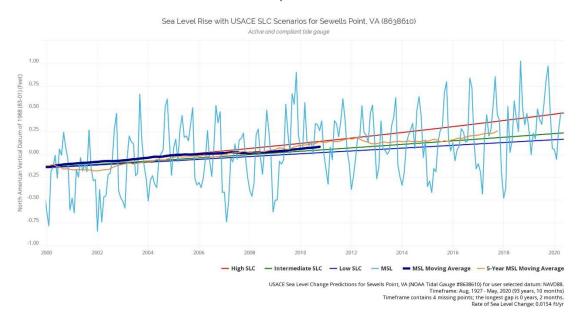


Figure 5.13 Historical Sea Level Rise with USACE SLC Scenarios for Sewells Point (8638610) for the years 2000 - 2020

## 5.6. Land Subsidence

The general land subsidence in the Chesapeake Bay area is approximately -0.0069 feet per year, which is approximately 0.69 feet over the next 100 years (Boon et al., 2010).

#### 5.7. Stillwater Elevations With and Without RSLC

Stillwater Elevation data from two sources was evaluated for the project site is available:

- 1. James River Bank Stabilization Alternative Analysis report by CH2MHILL (CH2MHILL 2013)
- 2. The North Atlantic Coastal Comprehensive Study (NACCS) wave statistics

## James River Bank Stabilization Alternative Analysis report by CH2MHILL (CH2MHILL 2013)

The first stillwater elevation source comes from the 2013 James River Bank Stabilization Alternative Analysis report of this same section of shoreline prepared for the City of Newport News by CH2MHILL (now Jacobs Engineering). This study performed and extreme value analysis on the Sewells Point tide gauge for the surge data and total water level. The Peak-Over-Threshold (POT) method was used, and various combinations of theoretical probability distributions (Weibull, Truncated Gumbel, Generalized Pareto, Gamma/Pearson, Log-Pearson, Exponential, Log-normal) and estimation methods (Method of Moments, Maximum Likelihood, Method of L-moments) were applied. Analyses with various threshold values in selecting storm events were conducted using a minimum time interval between successive peaks of 240 hours to ensure selection of independent events (CH2MHILL 2013). The results from that study are summarized in **Table 5.3**. As the results of that analysis was completed on gauge data up to the year 2011, the difference or increase in the relative local level rise (based on the USACE low scenario) from 2011 to 2020 (0.14 ft) was added to bring the water levels to present date. The next section about the North Atlantic Coast Comprehensive Study (NACCS) will compare the two study water levels.

Table 5.3 Extreme Surge Levels and Total Water Levels at Sewells Point Station based on Data from 1960 to 2011 (CH2MHILL 2013).

| Recurrance<br>(Yrs) | ACE %<br>Flood | Surge (ft) | Standard<br>Deviation (ft) | Total Water Level<br>(ft NAVD88) | Total Water Level<br>Adjusted to 2020<br>(ft NAV88) | Standard<br>Deviation<br>(ft) |
|---------------------|----------------|------------|----------------------------|----------------------------------|---|-------------------------------|
| 1                   | 100%           | 2.62       | 0.07                       | 3.23                             | 3.37  | 0.05                          |
| 2                   | 50%            | 3.18       | 0.11                       | 3.64                             | 3.78  | 0.09                          |
| 5                   | 20%            | 3.95       | 0.2                        | 4.27                             | 4.41  | 0.18                          |
| 10                  | 10%            | 4.54       | 0.29                       | 4.81                             | 4.95  | 0.29                          |
| 25                  | 4%             | 5.34       | 0.41                       | 5.62                             | 5.76  | 0.49                          |
| 50                  | 2%             | 5.95       | 0.52                       | 6.3                              | 6.44  | 0.7                           |
| 100                 | 1%             | 6.56       | 0.64                       | 7.05                             | 7.19  | 0.95                          |
| 250                 | 0.4%           | 7.38       | 0.81                       | 8.16                             | 8.30  | 1.35                          |

## North Atlantic Coast Comprehensive Study (NACCS)

This study used stillwater levels from the North Atlantic Coast Comprehensive Study (NACCS) performed by the USACE Engineering, Research and Development Center (ERDC). The purpose of the NACCS was to identify flood risk and then plan and implement strategies to reduce the risk now and in the future. The study also determined the magnitude and uncertainty of existing and future forcing conditions. It concluded to use its findings to assess coastal

engineering projects for coastal storm risk management and resiliency for the areas in the region. The study focused on the Northeast coastal region of the United States (from Virginia to Maine).

For this study NACCS data for the Base Conditions + 96 random tides was downloaded from CHS in November 2019. The CHS shows ADCIRC and STWAVE save points which contain NACCS results (storm surge, water level, wave height, wave period, wave direction, and current magnitude, etc.) in different locations. ADCIRC Save Point 17351 (Figure 5.14) was the nearest save point to the project location and was analyzed for all engineering evaluation purposes.



Figure 5.14 NACCS model save points near the project location

The native datum of the NACCS results was based on local mean sea level (MSL) tidal epoch 1983-2001. This was the datum that was used to define the NACCS regional hydrodynamic model (ADCIRC), from which storm surge results were obtained. The results of the NACCS water levels were referenced to the year 1992, the midpoint of the current National Tidal Datum Epoch (NTDE) (1983-2001). Therefore, the difference or increase in the relative local level rise (based on the USACE low scenario) from 1992 to 2020 (0.43 ft) was added to bring the water levels to present date. The values were also converted from, MSL to NAVD 88.

The NACCS results produced water levels for different storm frequencies and confidence limits, **Figure 5.15** displays Stage-Frequency Curvesfrom the NACCS results from (CHS) at Save Point 17351 for the mean (50%), 84%, 95%, and 98% confidence limits for water levels. **Table 5.4** displays the values of the NACCS mean (50%) and 98% confidence limits at Save Point 17351 adjusted with SLR to the present date.

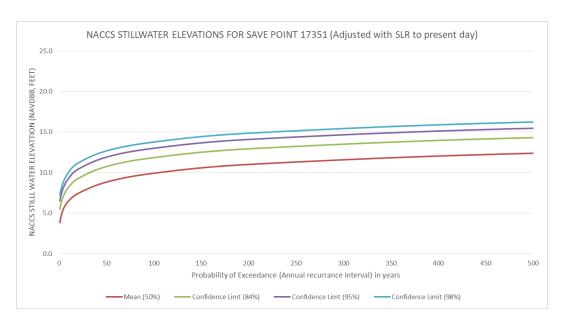


Figure 5.15 NACCS Stillwater elevations for Save Point 17351

Table 5.4 NACCS Mean (50%) and 98% Confidence Limits Stillwater elevations for Save Point 17351 Adjusted to Present Day

| NACCS WATER LEVELS ADJUSTED FOR SLR TO YEAR 2020 (LOW CURVE) |       |  |       |            |             |  |  |
|--|-------|--|-------|------------|-------------|--|--|
|  |       | Base Conditions + 96 Random Tides (NAVD88) |       |            |             |  |  |
|  |       | Mean                                       | (50%) | Confidence | Limit (98%) |  |  |
| Recurrance<br>(Yrs)  | ACE % | m  | ft    | m          | ft          |  |  |
| 1  | 100%  | 1.2  | 3.8   | 2.2        | 7.2         |  |  |
| 2  | 50%   | 1.4  | 4.5   | 2.4        | 7.9         |  |  |
| 5  | 20%   | 1.7  | 5.6   | 2.7        | 9.0         |  |  |
| 10   | 10%   | 2.0  | 6.5   | 3.1        | 10.0        |  |  |
| 20   | 5%    | 2.3  | 7.4   | 3.4        | 11.2        |  |  |
| 50   | 2%    | 2.7  | 8.8   | 3.9        | 12.7        |  |  |
| 100  | 1%    | 3.0  | 9.9   | 4.2        | 13.8        |  |  |
| 200  | 0.5%  | 3.4  | 11.0  | 4.5        | 14.9        |  |  |
| 500  | 0.2%  | 3.8  | 12.4  | 4.9        | 16.2        |  |  |
| 1000   | 0.1%  | 4.1  | 13.3  | 5.2        | 17.2        |  |  |
| 2000   | 0.05% | 4.3  | 14.2  | 5.5        | 18.0        |  |  |
| 5000   | 0.02% | 4.6  | 15.2  | 5.8        | 19.0        |  |  |
| 10000  | 0.01% | 4.8  | 15.8  | 6.0        | 19.7        |  |  |

The NACCS water levels are higher than the extreme values calculated by CH2MHILL as the extreme values are based on historical maximums from gauge data while the NACCS data is based on modeling data of a probabilistic storm suite. The historical maximum water levels are approximately equal to a 10% ACE flood to 2% ACE flood (10 to 50-year) tidal events. A statistical gauge analysis of the historical record may suggest that what has occurred in the past will occur

in the future, and this may underestimate the risk. Modeling effects, such as what was done for the NACCS, provide an opportunity to evaluate impacts of stronger hypothetical storms that may not have occurred on record, but could occur and thus the overall ACE water levels are higher. The NACCS water levels are the water levels considered for further analysis in this study.

## Impacts of Sea Level Rise during future years.

Engineering Pamphlet (EP) 1100-2-1, Global Changes – Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation, recommends analyzing the effects of SLR on the project at three future time period post construction (the year 2022). The time periods include 20 years after construction is completed (the calendar year 2042), 50 years after construction (the calendar year 2072), and 100 years after construction (the calendar year 2122). **Table 5.5** shows the predicted increase in SLR for the NACCS water levels using the USACE intermediate curve 20 years (2042), 50 years (2072), and 100 years (2122) into the future after the proposed construction year of 2022.

Table 5.5 Additional Increase in SLR predicted 20 years, 50 years, and 100 years into the future (in feet) from project start year of 2022 to 2122.

| NACCS MEAN (50%) WATER LEVELS ADJUSTED FOR SLR (USACE INTERMEDIATE CURVE) TO YEAR 2022,2042, 2072, and 2122 |       |           |           |           |           |  |  |
|---|-------|-----------|-----------|-----------|-----------|--|--|
|   |       | Year 2022 | Year 2042 | Year 2072 | Year 2122 |  |  |
| Recurrance<br>(Yrs)   | ACE % | ft        | ft        | ft        | ft        |  |  |
| 1   | 100%  | 3.9       | 4.3       | 5.1       | 6.8       |  |  |
| 2   | 50%   | 4.6       | 5.0       | 5.8       | 7.6       |  |  |
| 5   | 20%   | 5.7       | 6.1       | 6.9       | 8.6       |  |  |
| 10  | 10%   | 6.5       | 7.0       | 7.8       | 9.5       |  |  |
| 20  | 5%    | 7.5       | 7.9       | 8.7       | 10.4      |  |  |
| 50  | 2%    | 8.9       | 9.3       | 10.1      | 11.8      |  |  |
| 100   | 1%    | 10.0      | 10.4      | 11.2      | 12.9      |  |  |
| 200   | 0.5%  | 11.1      | 11.5      | 12.3      | 14.0      |  |  |
| 500   | 0.2%  | 12.4      | 12.9      | 13.7      | 15.4      |  |  |
| 1000  | 0.1%  | 13.4      | 13.8      | 14.6      | 16.3      |  |  |
| 2000  | 0.05% | 14.2      | 14.7      | 15.5      | 17.2      |  |  |
| 5000  | 0.02% | 15.2      | 15.7      | 16.5      | 18.2      |  |  |
| 10000   | 0.01% | 15.9      | 16.3      | 17.1      | 18.9      |  |  |

## 5.8. Wind Climate

Wind data is observed at gauge located at the Dominion Terminal Associates Pier 11 (DOMV2) (Station ID: 8638511) on the southern end of the Virginia Peninsula approximately four miles south of the project site (**Figure 5.16**). The purpose of reviewing this data for the project is to understand which direction causes the biggest waves.

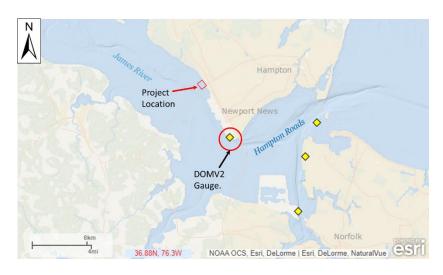


Figure 5.16 Location of DOMV2 Gauge compared to project site

A windrose plot was available for data from August 30, 2016 to March 31, 2020 for this gauge through the Iowa Environmental Mesonet (IEM) which collects environmental data from cooperating members with observing networks and compiles that data into some tables and graphs for public use. The orientation of the project site is shown overlaid on the windrose to display the winds directions responsible for the waves along the shoreline. The windrose shows that the shoreline is subjected to wind and waves most frequently from the Southwest however the strongest winds and subsequently the greatest potential wave energy are those from the Northwest.

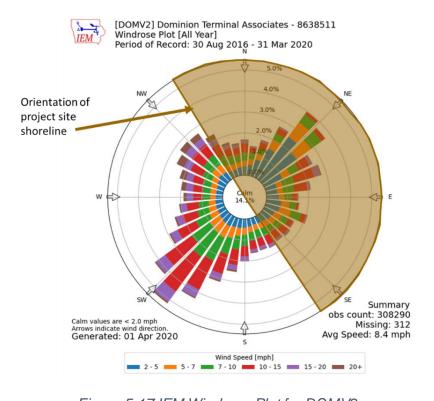


Figure 5.17 IEM Windrose Plot for DOMV2

## 5.9. Wave Climate

Wave climate data for the project site is available from a few different sources:

- An historical wave hindcast study performed by the Old Dominion University Dept of Civil Engineering (Basco and Shin 1993)
- 2. James River Bank Stabilization Alternative Analysis past report by CH2MHILL (CH2MHILL 2013)
- 3. The North Atlantic Coastal Comprehensive Study (NACCS) wave statistics

## Historical Wave Hindcast Study (Basco and Shin 1993)

The first source, a detailed wave hindcast study conducted for the Chesapeake Bay and its tributaries by Basco and Shin (1993) used long-term wind data from Norfolk International Airport and Naval Air Station Patuxent River, along with historical storm surge measurements within the bay to develop bay wind-wave hindcast. As a final product, 12 wave information maps were developed showing both iso-wave height contours (spectral significant wave height,  $H_{m0}$ ) at one-half-foot intervals and wave periods (peak period,  $T_P$ ) covering all the water areas of the Chesapeake Bay and its major tributaries in Virginia. Figure 5.18 shows iso-wave height contours and associated wave periods for the James River at the entrance to the Chesapeake Bay. Maximum wave height is found to be 3.5 ft, with peak wave period of 3.7 seconds in front of the project site. According to Basco and Shin (1993), the wave climate in front of the project site may be classified as a medium energy wave environment. The iso-wave contour map has limited used since the 1993 study's analyses were based on a simple hindcast model that assumes a constant weighted-average water depth over the entire wind field region. It is also noted that wave energy spreading is not explicitly controlled in the hindcast model and near the shoreline, wave breaking and energy loss further complicate the process.

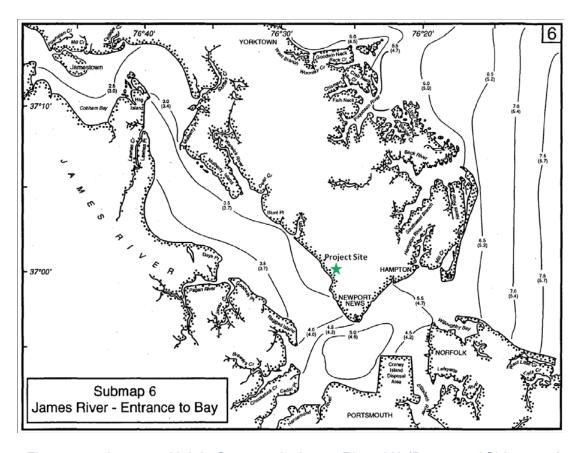


Figure 5.18 Iso-wave Height Contours in James River, VA (Basco and Shin, 1993)

## James River Bank Stabilization Alternative Analysis report by CH2MHILL (CH2MHILL 2013)

The second wave climate source comes from the 2013 James River Bank Stabilization Alternative Analysis report of this same section of shoreline prepared for the City of Newport News by CH2MHILL (now Jacobs Engineering). The report references unpublished hydrodynamic modeling performed by CH2MHILL of hurricane storm surge inundation for Newport News Shipyard Facility (NNSF) located southwest of the project site with a modeling grid that included the James River Shoreline in this study. Therefore CH2MHILL utilized that previous modeling data to collect additional wave information for their 2013 report. Based on analyses of this hydrodynamic modeling, which used actual hurricane storm data to determine the most likely hurricane event scenarios and verify accuracy of the mode, Hurricane Isabel was the most severe hurricane among the many examined in terms of surge level at the NNSF site, which is close to the 50-yr return period extreme storm event. Figure 5.19 shows images taken from the 2013 CH2MHILL report which illustrate the spatial distribution of wave height and peak wave period near the project site, respectively. As shown in Figure 5.19, the model predicted a maximum wave height is 4.6 ft, with peak wave period of 4.1 s in front of the project site during the peak of Hurricane Isabel (CH2MHILL 2013).

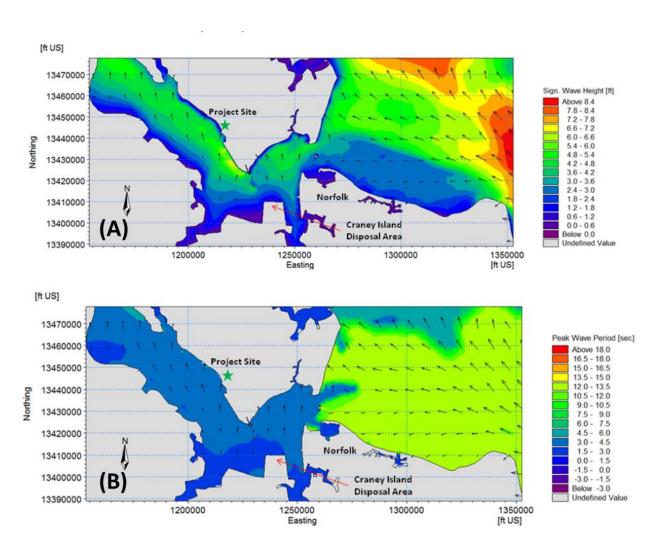


Figure 5.19 Spatial Distribution of (A) Wave Height Vectors and (B) Peak Wave Period Vectors during Peak of Hurricane Isabel (2003) in Front of Project Site (Coordinates: WGS1984, UTM 18N Projection System) (CH2MHILL 2013)

#### **NACCS** Wave Statistics

The last wave climate source is the North Atlantic Coast Comprehensive Study (NACCS) which is described in more detail in paragraph 5.5. The NACCS modeling effort not only computed stillwater elevations for different frequencies, but also significant wave heights (ARI significant wave heights) for each storm frequency. The NACCS numerical modeling study produced nearshore wind, wave and water level estimates and the associated marginal and joint probabilities. Data (storms, waves, tides, etc.) was collected from many resources. Once storms were selected and the necessary data input into the ADCIRC model was used to simulate the surge and circulation response to the storms; and STWAVE was used to provide the nearshore wave conditions including local wind generated waves. ADCIRC is a system of computer programs for solving time dependent, free surface circulation and transport problems in two and three dimensions. This model utilizes the finite element method in space allowing the use of highly flexible, unstructured grids. Typical ADCIRC applications have included:

- prediction of storm surge and flooding
- modeling tides and wind driven circulation
- larval transport studies
- near shore marine operations
- dredging feasibility and material disposal studies

STWAVE uses a finite-difference representation of a simplified form of the spectral balance equation to simulate near-coast, time-independent spectral wave energy propagation. **Table 5.6** shows the average significant wave heights that were computed from the NACCS modeling efforts for the mean and 98% confidence limit frequency curves for ADCIRC Save Point 17351/STWAVE Save Point 4301.

Table 5.6 NACCS Wave Heights

|                  |             | NACCS Wave Heights |                       |  |
|------------------|-------------|--------------------|-----------------------|--|
|                  |             | Mean (50%)         | Confidence Limt (98%) |  |
| Recurrance (Yrs) | ACE % Flood | ft                 | ft                    |  |
| 1                | 100%        | 2.26               | 8.71                  |  |
| 2                | 50%         | 2.73               | 9.21                  |  |
| 5                | 20%         | 3.03               | 9.49                  |  |
| 10               | 10%         | 3.26               | 9.70                  |  |
| 20               | 5%          | 3.39               | 9.86                  |  |
| 50               | 2%          | 3.56               | 9.92                  |  |
| 100              | 1%          | 3.68               | 9.97                  |  |
| 200              | 0.5%        | 3.81               | 10.01                 |  |
| 500              | 0.2%        | 3.97               | 10.08                 |  |
| 1000             | 0.1%        | 4.09               | 10.12                 |  |
| 2000             | 0.05%       | 4.20               | 10.17                 |  |
| 5000             | 0.02%       | 4.36               | 10.23                 |  |
| 10000            | 0.01%       | 4.48               | 10.28                 |  |

## Wave Heights Used in this Study

After reviewing all of the existing wave data and existing modeling data and results, the study continued with its analysis using two wave heights and periods, the maximum wave height and period from the Basco and Shin wave hindcast study of 3.5 ft and 3.7 seconds respectively, and the modeled wave for Hurricane Isabel from the CH2MHILL hydrodynamic model wave results with a maximum wave height of 4.6 ft, with peak wave period of 4.1 seconds. Looking at the NACCS mean wave heights in Table 5.6, the 3.5 ft wave height corresponds to approximately a 50 YR (2%) wave frequency and the 4.6 ft wave height is slightly larger than the 10000 YR (0.01%).

Table VI-5-28 from the Coastal Engineering Manual (CEM) was used to check the rear side stability for the armor layer. The results showed that the damages would be less than 1%. More information about overtopping and wave runup can be seen in Section 8.2.

## 5.10. **Shoreline Change**

There is a significant relationship between wind speed and wave activity, in addition to depth of water and duration of storm. Increase of wind speed will increase waves and as a result, this will increase the erosion potential. Wave and sediment transport modeling performed by Fagherazzi and Wiberg (2009) show a correlation between waves and erosion. They found a relationship between high water levels (leading to waves breaking and hitting the shoreline at higher elevations) and increasing erosion factors. **Figure 5.20** displays a representation of the study results.

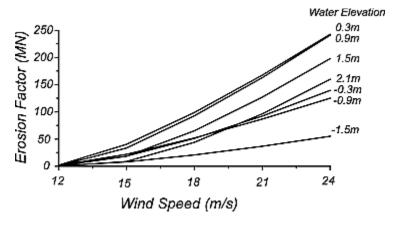


Figure 5.20 Erosion Factor as a function of wind speed for different water elevation (Fagherazzi and Wiberg 2009)

The project site is in an accelerated rate of shoreline retreat characterized by river flow, water level rise, and tidal, storm, and wind driven wave action. It is estimated that the average retreat is 0.7 feet/ year (ft/yr) with aerial imagery from 2014-2018 (**Figure 5.21**). This is close to the typical erosion rate of 0.8 ft/yr for the northern banks in Newport News of the James River by Hardaway and Anderson (1999).



Figure 5.21 Google Earth Image showing the change in shoreline

## 6.0 Surveying, Mapping, and Other Geospatial Data

## 6.1. Surveys & Mapping

No new surveys were collected to evaluate the final array of alternatives and only existing data was used. Site specific data will be collected as needed during Preconstruction Engineering and Design (PED) and construction. The following is an overview of the survey, mapping, and geospatial data available in and around the study area:

- LiDAR used for this study was collected in 2015, and later processed and published in 2017 by USGS. The LiDAR vertical accuracy for the Eastern Shore Virginia LiDAR Project is 0.41 feet in non-vegetated terrain and 0.58 feet in vegetated terrain. The project team assumed that much of the collected data was over vegetated terrain. Elevations were referenced to North American Vertical Datum of 1988 (NAVD88).
- Topographic and bathymetric survey data was collected for the 2013 James River Bank Stabilization Alternative Analysis report by CH2MHILL. In total, 6 crosssections beginning 20 ft landward form the existing top of the bank extending seaward to a maximum depth of 5 ft below the mean low water conditions. The report displays the cross-shore profiles of these 6 transects where general ranges of nearshore bathymetric contours could be derived. XYZ data was not available.

#### 6.2. Horizontal and Vertical Datums

All surveys and mapping products should have the same horizontal and vertical datum. The horizontal datum for this study is tied to the State Plane Coordinate System using North American Datum of 1983 (NAD83, Virginia South, 4502). Distances are in feet by horizontal measurement. Coordinates are Virginia South Zone. The vertical datum for this study is tied to the North American Vertical Datum of 1988 (NAVD88), a requirement of ER 1110-2-8160. Elevations are in feet.

## 7.0 Geotechnical Engineering Analysis

A preliminary geotechnical engineering analysis was performed by the Norfolk District, US Army Corps of Engineers Geo-Environmental Engineering Section on four (4) proposed design alternatives developed during the Federal Interest Determination (FID) Phase. The four alternatives are described as the following: rock sill with vegetated berm; stone revetment; stone revetment and vegetated berm; and a living shoreline which would consist of a stone toe and/or rock sill, vegetation erosion control, and earthen berm. To analyze these four alternatives, the Geo-Environmental Engineering Section utilized two reports that were provided by the Sponsor, the City of Newport News. The documents provided were: Geotechnical Engineering Data Report, James River Stabilization Project, completed by Schnabel Engineer dated May 10, 2013; and the James River Bank Stabilization Alternative Analysis Report, completed by CH2M HILL, dated July 2013. These reports provided data and site information which were utilized to develop a preliminary slope stability analysis for each alternative.

## 7.1. Site Description

The project site is located in the City of Newport News, Virginia adjacent to the Chesapeake Bay and about 65 miles southeast of Richmond. The project area is located along the north bank of the James River, west of the James River Bridge (US Routes 17/258), and lies between Newmarket Creek and North Avenue, immediately adjacent to River Road. An approximately 600-foot section of riverbank along the James River is severely eroded by the combined effects of natural erosion processes. The resulting 25-foothigh receding sandy bluff is an imminent threat to existing public facilities, River Road which travels parallel to the project site, and private home owners.

The Norfolk District, US Army Corps of Engineers conducted a site visit 6 December 2019. The river bank was observed to contain areas of vegetation such as shrubs and some mature trees. In the walls of the bank, and on the beach, debris such as but not limited to boulder size pieces of concrete, bricks and brick structures, trash, pipe, and metal shrapnel were observed. Existing sparse rip rap, timber piers from older, demolished river piers, dilapidated groins, and an existing pier from a property owner were also observed. The slopes were unevenly eroded and steep, generally exceeding a 1 horizontal to 1 vertical (1H:1V) slope. Measurements were taken at three locations within North Avenue and South Avenue to determine the distance between the edge of the bank and the edge of River Road. The distance between the edge of the bank and River Road varied from approximately 19 to 38 feet. Some tree trunks were observed near the edge of the bank to be bowed which indicates evidence of creep. Storm drains were not visible within the project area or within the immediate vicinity of River Road parallel to the project site. A drainage ditch was observed in one area of the bank to serve as a path for sheet flow to travel over the bank and onto the beach.

## 7.2. Regional Geology

The project site is underlain the Shirley Formation and the Yorktown Formation. The Shirley Formation is Quaternary age and consists of light to dark gray, bluish-gray and brown sand, gravel, silt, clay, and peat. It is comprised of surficial deposits of riverine terraces and relict

baymouth barriers and bay-floor plains deposits. Formation thickness ranges from 0 to 80 feet. These surficial deposits are underlain by the soils of the Yorktown Formation.

The Yorktown Formation is Miocene in age. The top of the Yorktown Formation typically consists of a relatively thin layer of bluish gray to gray highly plastic clay. The underlying soils of the Yorktown Formation typically consist of bluish gray to gray, fossiliferous, medium dense silty sands, and firm to very stiff sandy silts and silty sands. Shell beds are often abundant in this formation. The Yorktown Formation, once encountered, generally extends to depths in excess to 150 feet below sea level.

## 7.3. General Subsurface Stratigraphy

The City of Newport News provided the Norfolk District, US Army Corps of Engineers with a Geotechnical Engineering Data Report dated May 10, 2013, completed by Schnabel Engineering for the project site. Schnabel Engineering's subcontractor, ConeTec, Inc. ConeTec Inc. performed four (4) Cone Penetrometer Tests (CPT) over the project site, labeled in the report as CPT-01 through CPT-04. The CPTs were conducted to a depth of 40 feet. Based on the results of this exploration, the report discusses the general stratum types and soil properties as follows.

## A. Subsurface Stratigraphy

Stratum A: Sands and sand mixtures, with gravelly sands only encountered in CPT-04, are indicated in the CPTu plots in the appendix of Schnabel's report. The data shows that this stratum was generally encountered at an approximate depth of 0.2 to 16 feet below ground surface for all CPT locations. Unit weight values ranged from approximately 111 to 124 pounds per cubic foot (pcf), friction angle values ranged from approximately 30 to 42 degrees, and undrained shear strength values ranged from approximately 0.4 to 1 ton per square foot (tsf).

<u>Stratum B</u>: Clays, silty clays, and silt mixtures are indicated in the CPTu plots. This stratum was generally encountered at an approximate depth of 16 to 28 feet below ground surface for all locations. Unit weight values ranged from approximately 111 to 114 pcf, friction angle values ranged from approximately 0 to 34 degrees, and undrained shear strength values ranged from approximately 0.2 to 1 tsf.

Stratum C: For all locations at an approximate depth of 28 to 30 feet below ground surface, a layer of sand mixtures, gravelly sand to sand, and sands were indicated in the CPTu plots. Unit weight values ranged from approximately 114 to 127 pcf, friction angle values ranged from approximately 37 to 43 degrees, and undrained shear strength values ranged from approximately 0.6 to 2 tsf. For this depth interval, for informational purposes, the empirical data for the undrained shear strength at locations CPT-03 and CPT-04 were calculated by ConeTec to be zero. The undrained shear strength value of zero was not considered to be an accurate value to use in the analysis and it was not considered.

For the remainder of Stratum C to termination, interbedded clays with silt mixtures and some sand mixtures are indicated in the CPTu plots, ranging in an approximate depth of 30 to 40 feet below ground surface for all locations. Unit weight values ranged from approximately 111 to 121

pcf, friction angle values ranged from approximately 27 to 35 pcf, and undrained shear strength values ranged from approximately 0.4 to 3 tsf.

#### B. Groundwater

According to the information provided in the Schnabel Engineering's Geotechnical Report, groundwater was encountered in each of the four (4) CPT locations at depths of about 19 to 28 feet below the ground surface. The sounding logs in Appendix A of the report include groundwater observations obtained during the subsurface exploration.

The groundwater levels on the logs indicate the estimate of the hydrostatic water table at the time of the subsurface exploration. The final design should anticipate the fluctuation of the hydrostatic water table depending on variations in precipitation, surface runoff, pumping, tidal action, river levels, evaporation, leaking utilities, and similar factors.

# 7.4. Geotechnical Engineering Evaluation of Alternatives

The GeoStudio 2018 R2 computer program was utilized to perform the slope stability analysis. This program requires input of slope geometry, subsurface stratigraphy, and material properties to determine the most stable slope for each design alternative. The stability of the slope is measured in terms of factors of safety. The minimum allowable factor of safety for the embankment stability, will be evaluated in accordance with the US Army Corps of Engineers Engineering Manual (EM) 1110-2-1902 Table 3-1. The US Army Corps of Engineers has no minimum factor of safety requirements for shoreline stabilization projects, but the slope stability analysis will be evaluated in accordance to dam and levee criteria. The minimum factor of safety was evaluated as 1.3 for end of construction and 1.5 for long term conditions.

The Norfolk District, Hydrology and Hydraulics Engineering (H&H) Section provided the Geo-Environmental Engineering Section (Geo) with Light Detection and Ranging (LiDAR) profiles at various locations along the project site river bank. The data obtained from the LiDAR profiles were transferred into a Microsoft Excel spreadsheet by the H&H Section and were graphed to observe the behavior of the slopes by the Geo Section. As shown in **Figure 7.1**, several profiles were evaluated, and Arc 5 was selected by the Geo Section for the analysis of the alternatives based on the height and steepness of the slope. The location of Arc 5 is shown in **Figure 7.2**.

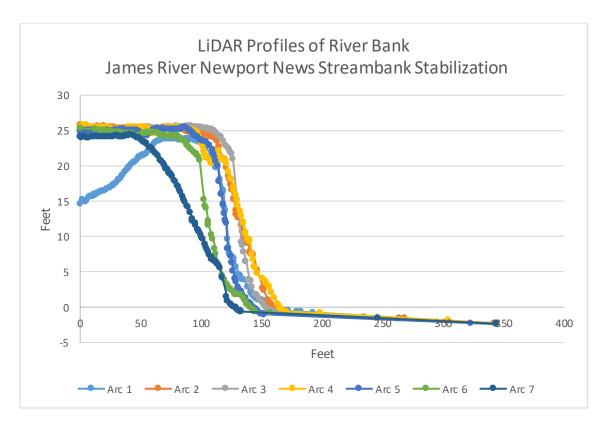


Figure 7.1 LiDAR River Bank Profiles



Figure 7.2 Location of river bank profiles Arc 1 through 7

The provided Geotechnical Engineering Data Report and the James River Bank Stabilization Alternative Analysis Report were used to generalize the subsurface soil properties for the project site. The raw CPT data provided in Appendix B CPT DATA TABLES of the report were exported into Microsoft Excel and interpolated. Table 2-2 on page 2-13 of the James River Bank Stabilization Alternative Analysis Report, provided CH2MHILL's recommendations for depth of the stratums, their USCS Classifications, and each soil stratum's moist unit weight, angle of internal friction, and undrained shear strength. After further evaluation of the data, it was determined that the report's interpretation of each stratum's USCS Classification would be used, but each stratum's depth, soil properties for the soil unit weight, angle of internal friction, and undrained shear strength would need to be re-interpreted. The subsurface conditions and soil parameters from the report were generalized and used in the slope stability analysis for Case 1, undrained condition end of construction as shown in **Table 7.1**. For the Case 2, drained condition long term analysis, phi angle values were interpolated from references by assuming the soils contained a low swell potential with a plasticity index less than 25 as referenced in Table 4-1 of TM 5-818-7 Foundations in Expansive Soils 01 September 1983. Because the CPT undrained shear strength value was interpolated to be 500 psf for the CL-ML layer from 17 to 27 feet, a lower phi angle value was assumed. Low drained shear strength values were also assumed for the ML Mixture and CL-ML layers.

Table 7.1 Generalized Subsurface Soil Properties Used in GeoStudio Analysis

| Soil Type<br>(USCS) | Depth<br>Below<br>Ground<br>Surface<br>(feet) | Elevation<br>(feet) | Moist<br>Unit<br>Weight<br>(pcf) | Phi Angle<br>(degrees)                                      | Undrained<br>Shear<br>Strength (psf)            | *Phi Angle<br>(degrees)                      | Assumed Drain Shear Strength (psf)           |
|---------------------|---|---------------------|----------------------------------|---|---|--|--|
|                     |   |                     |                                  | Case 1:<br>Undrained<br>Condition<br>End of<br>Construction | Case 1: Undrained Condition End of Construction | Case 2:<br>Drained<br>Condition<br>Long Term | Case 2:<br>Drained<br>Condition<br>Long Term |
| SW to SM            | 0 to 16                                       | +9 to +25           | 117                              | 34  | 0   | 34   | 0  |
| ML<br>Mixture       | 16 to 17                                      | +8 to +9            | 114                              | 0   | 1,000   | 25   | 10   |
| CL-ML               | 17 to 27                                      | -2 to +8            | 111                              | 0   | 500   | 22   | 15   |
| ML-SM               | 27 to 29                                      | -4 to -2            | 114                              | 30  | 0   | 30   | 0  |
| Sand and<br>Gravel  | 29 to 31                                      | -6 to -4            | 120                              | 34  | 0   | 34   | 0  |
| CL-ML2              | 31 to 38                                      | -13 to -6           | 114                              | 0   | 1,200   | 26   | 20   |
| ML-SM2              | 38 to 40                                      | -15 to -13          | 115                              | 27  | 0   | 27   | 0  |
| Sand and<br>Gravel2 | 40 to 41                                      | -16 to -15          | 117                              | 32  | 0   | 32   | 0  |

\*EM 1110-2-1913 Design and Construction of Levees, 31 March 1978, Figure 3-2 page 3-7. Mississippi River Soil Data.

Additional soil and rock materials were required to analyze the four alternative designs in the GeoStudio program. Compacted silty sand (SM) material was assumed to be used to fill for areas of the slope that would be required to be brought to finished grade. Poorly graded sand (SP) material was assumed to be used for vegetated areas at the bottom of the slope and behind the rock sill structure for the living shoreline alternative. The VDOT Class III riprap and VDOT No. 1 Stone materials were both selected by the Norfolk District H&H Section for the design of the stone revetment and rock sill structures. Please refer to Section 8 of the Engineering Appendix for stone size design assumptions. VDOT No. 1 Stone material is used as bedding stone beneath the VDOT Class III riprap of the revetment and rock sill structures. These additional soil and rock material properties were interpolated from the NAVFAC Design Manual page 7.2-39 Table 1 and the 4.6.3 Rock Density in the Riprap Construction Guide as indicated below in **Table 7.2**.

Table 7.2 Soil Properties for Additional Materials Used in GeoStudio Analysis

| Soil Type<br>(USCS)      | Unit Weight<br>(pcf) | Phi Angle<br>(degrees) |
|--------------------------|----------------------|------------------------|
| **Compacted SM           | 125                  | 32                     |
| *SP (sand fill)          | 100                  | 32                     |
| *VDOT No. 1 Stone        | 125                  | 37                     |
| ***VDOT Class III Riprap | 140                  | 42                     |

<sup>\*</sup>NAVFAC Design Manual 7.02 page 7.2-39 Table 1.

When entering the Arc 5 profile into the GeoStudio computer program, the southern edge of River Road was assumed to be at point x=0 feet and y=25 feet. The starting height for the Arc 5 profile was interpolated from the LiDAR data to be elevation +25 feet. The design for each alternative began at a 10-foot distance from the southern edge of River Road. This minimum 10-foot distance requirement was provided to the Norfolk District design team by the City of Newport News.

The Norfolk District H&H Section provided the Geo Section with preliminary Computer Aided Design and Drafting (CADD) drawings for each alternative. These preliminary designs were input into the GeoStudio computer program for the slope stability analysis. Refer to section 9.0 Alternative Design Considerations for a more detailed description of each alternative design. The maximum distance at which the outer most edge of the shoreline stabilization system could extend offshore was proposed to be 30 to 40 feet from the toe of the shoreline. This would keep the system within the limits of the ordinary high water (OHW) boundary.

For each alternative analysis, the designs began with a 2 horizontal to 1 vertical (2H:1V) design slope and the horizontal component of the slope was gradually increased if the minimum factor of safety requirements provided in Table 3-1 of EM 1110-2-1902 Slope Stability, 31 October 2003 were not generally satisfied. Two conditions were evaluated for each alternative. The first condition (Case 1) evaluated if the designed slope for undrained soil conditions generally met the minimum factor of safety criteria of 1.3 for end of construction. For this condition the groundwater level in the river bank was assumed to be at elevation +5 feet based on the groundwater information provided in the Geotechnical Engineering Data Report dated May 10, 2013, and the river elevation was determined to be at the Mean Higher High Water level (MHHW) +1.24 feet elevation as provided by the Norfolk District H&H Section. The phreatic line was assumed to extend through to the top surface of the design slope at elevation +5 feet then exits at MHHW elevation +1.24 feet. Case 2 evaluated the designed slope under drained consolidated soil conditions, and evaluated if the slope generally met the minimum factor of safety criteria of 1.5 for long term conditions. For this condition the groundwater level in the river bank was assumed to be similar to that as described for Case 1. The results of the GeoStudio slope stability analysis are provided in **Table 7.3**.

<sup>\*\*</sup>Virginia Polytechnic Institute and State University, Shear Strength Correlations for Geotechnical Engineering, by J.M. Duncan, R.C. Horz, and T.L. Yang

<sup>\*\*\*4.6.3</sup> Rock Density in the Riprap Construction Guide. Province of British Columbia Ministry of Environmental, Lands, and Parks. March 2000. <a href="http://www.env.gov.bc.ca/wsd/public safety/flood/pdfs">http://www.env.gov.bc.ca/wsd/public safety/flood/pdfs word/riprap guide.pdf></a>

Table 7.3 GeoStudio Slope Stability Analysis Results

| Alternative                             | Stable Design Slope<br>(Horizontal:Vertical) | Factor of Safety 1.3<br>(Case 1) | Factor of Safety 1.5<br>(Case 2) |
|---|--|----------------------------------|----------------------------------|
| Rock Sill with<br>Vegetated Berm        | 3H:1V  | 1.551                            | 1.546                            |
| Stone Revetment                         | 3H:1V  | 1.432                            | 1.423                            |
| Stone Revetment with Vegetated Berm     | 3.5H:1V                                      | 1.741                            | 1.459                            |
| Living Shoreline with<br>Vegetated Berm | 4H:1V  | 1.775                            | 1.603                            |

The factor of safety requirements in Table 3-1 of EM 1110-2-1902 are used for the design of new embankment dams. Section 3-4 of the EM also provides criteria for structures indicated as "Other Slopes". The criteria provided in Table 3-1 for new embankment dams take into consideration greater uncertainties and consequences of failure. When taking into consideration the uncertainties and consequences of failure for the purposes of this project, these concerns are considered to be smaller. EM 1110-2-1902 states that when the uncertainty and consequences of failure are both small, it is acceptable to use smaller factors of safety, on the order of 1.3. If the factor of safety values provided in **Table 7.3** for each alternative do not meet the minimum factors of safety requirements presented in Table 3-1 of EM 1110-2-1902, the analysis values are considered to be acceptable in accordance with section 3-4 "Other Slopes" of EM 1110-2-1902.

# 7.5. Geotechnical Engineering and Construction Considerations

In order for the alternative designs to generally meet the minimum factor of safety requirements for stability as stated in EM 1110-2-1902 Table 3-1, the minimum stable design slopes for each alternative are provided in **Table 7.3**.

Although a Geotechnical Engineering Data Report was completed by Schnabel in 2013 and provided by the City of Newport News, it is recommended that another geotechnical exploration be performed during the design phase. Although the 2013 report provides in-situ soils data, additional Standard Penetration Testing (SPT) in accordance with American Society for Testing and Materials (ASTM) D1586 and soils laboratory testing is recommended to confirm the results provided by Schnabel in the 2013 report. SPT locations should also be performed to a deeper depth of at least 60 feet in the embankment area. Cone Penetration Test (CPT) locations in accordance with ASTM D5778 should also be performed in the river within proximity of the location of the proposed rock sill areas to identify underlying soil conditions. Any potential softer

soils should be identified for settlement issues that are encountered during the design phase. Settlement of the shoreline structure should be considered as a part of the design phase.

Prior to construction the river bank slopes, starting 10 feet beyond the southern edge of River Road, the Contractor will be required to be grubbed of all trees, vegetation, stumps, and roots. Due to some large trees, roots may extend two to three feet below the ground surface. Debris removal will be required within the project limits of the river bank slopes and up to approximately 40 feet offshore from the shoreline or as shown in the design drawings. The Contractor shall expect to encounter debris as described in section 8.1 Site Description of this report. The Contractor shall also anticipate the removal of dilapidated groins and remains of old piers within the project limits.

It is recommended that biodegradable erosion control blankets be placed overtop the river bank soils of the vegetated berms to prevent further erosion of the soils.

If it is determined to use the VDOT No. 1 stone for bedding material, it is recommended that a non-woven filtration geotextile be placed beneath the VDOT No. 1 bedding stone for the revetment and rock sill structures. As a proposed revision to the design of the rock sill structure during the design phase, Alternative 1 shown in **Figure 7.3**, the non-woven geotextile fabric should extend up to meet the surface of the berm to prevent berm erosion (erosion concern indicated by the red circle in the figure). Additional No. 1 bedding stone and Class III Rip Rap can be placed on top the geotextile fabric as required to raise the elevation of the top of the sill. The geotextile fabric may also need to be keyed into the slope to secure in place. During the design phase, a filter check should be performed to verify that the VDOT No. 1 bedding layer below the Rip Rap (proposed VDOT Class III) will not erode from between the open void spaces of the Rip Rap. A non-woven geotextile fabric is recommended to be placed between the foundation soils and the VDOT No.1 bedding stone to prevent possible erosion of the foundation soils. If the non-woven geotextile fabric is used as recommended, a filter check may not be necessary between the VDOT No.1 stone and the foundation soils.

Another alternative material to substitute in place of the VDOT No. 1 bedding stone would be filter mattresses. Filter mattresses could be constructed on site by a manufacturer, and a non-woven geotextile could also be attached to the bottom of the mattress. The non-woven geotextile, used for both possible design cases, will prevent erosion of the finer soil particles beneath the stone on the river bottom and berm. If the filter mattress is determined to be used for the design, a filter check would not be required for the bedding stone since the geogrid will secure the stone in the mattress. The stone chosen to be placed within the geogrid shall be greater in diameter than the size of the geogrid openings.

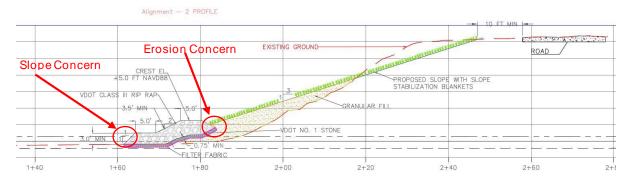


Figure 7.3 Alternative 1 Design Concerns

Another design concern indicated in **Figure 7.3** above (Slope Concern) are the slope dimensions of 1H:1V on the toe of the rock sill for Alternative 1. For a more stable slope on the toe of the rock sill, it is recommended that the 1H:1V slope be revised to a minimum slope of 2H:1V during the design phase.

Although Alternative 3 was not selected as the project's tentatively selected plan (TSP), a revision to the design its current design is suggested. A non-woven geotextile fabric should be placed where the VDOT Class III Rip Rap comes into contact with the berm soils to prevent erosion. Refer to red circle area indicated in **Figure 7.4** (Erosion Concern). Otherwise, wave runoff will overtop the Rip Rap, or if rain water or groundwater seeps into the granular fill, the seepage water will carry granular fill particles into the rip rap and undermine the vegetated slope.

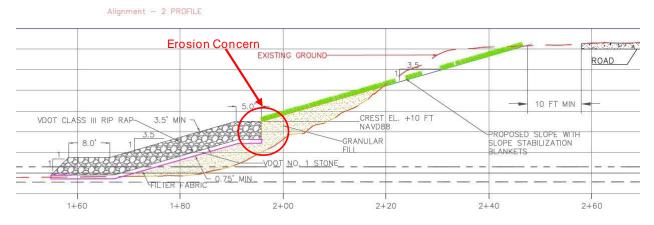


Figure 7.4 Alternative 3 Design Concern

Excavation and construction near and/or on top of the river bank may result in failure of the natural river bank. The Contractor shall proceed with extreme caution and will be required to provide whatever means necessary to prevent failure of the natural river bank. The Contractor shall take into consideration if construction may need to proceed from the toe of the bank until the bank is adequately supported.

The soils which will be excavated on-site may be re-used but shall only be re-used as backfill in areas on the natural river bank in accordance with the satisfactory materials requirements to

be provided in the design specifications. Unsatisfactory materials will be required to be removed offsite by the Contractor.

On-site excavated soils to be re-used and imported satisfactory soils shall be compacted with suitable compaction equipment 90% of maximum laboratory value for the standard moisture density relationship in accordance with ASTM D698.

Groundwater was encountered in the Geotechnical Engineering Data Report dated May 10, 2013 at approximate depths of 19 to 28 feet below the ground surface of the river bank. As indicated in the report, the final design should anticipate the fluctuation of the hydrostatic water table depending on variations in precipitation, surface runoff, pumping, tidal action, river levels, evaporation, leaking utilities, and similar factors. It is recommended, by the Norfolk District Geo Section, that excavations will encounter groundwater and seepage water which will require dewatering methods such as well points or wells to lower the groundwater and allow construction under dry conditions. If the groundwater is not properly controlled the soil may begin to slough and unravel during the slope excavation. The Contractor shall also consider the fluctuating river levels which may require construction of temporary cofferdam.

At this time, it is our understanding that laydown areas will be available for the Contractor to utilize during construction. Proposed laydown locations are identified in sections of this feasibility report.

The Contractor will be responsible for Contacting Miss Utility of Virginia and verifying that all utilities are located prior to construction. The Contractor shall maintain all utility markings through all phases of construction.

The Contractor will be utilizing public roads to access the project area for construction. The Contractor shall take care not to damage the roadways or utilities. Any damage caused to the roadways and utilities shall be repaired by the Contractor to new or existing condition at no additional cost to the government. All roadway and utility repairs shall receive approval from the City of Newport News prior to completion.

The Contractor shall take into consideration to allow property owners to access their properties at all times. Traffic control may need to be taken into consideration by the Contractor. The roadway shall have enough space to allow emergency vehicles to access the properties.

The Contractor will be constructing the shoreline stabilization system near property owners' structures, such as but not limited to, an existing pier. The Contractor shall take care not to damage existing property owners' structures. Any damage caused to existing structures shall be repaired by the Contractor to new or existing condition at no additional cost to the property owner.

It is recommended that the Contractor perform a pre-construction and post construction survey to document all existing conditions prior to construction and after construction. Detailed requirements for these surveys should be provided in the specifications during the design phase for the Contractor to photo document the conditions and complete regular reports.

#### 8.0 Alternative Design Considerations

#### 8.1. Introduction

As it was mentioned in **4.3 Description of the Selected Plan Alternative**, Alternative 1-Rock Sill with Vegetated Slope, is the Selected Plan Alternative, however the following paragraphs detail the engineering design consideration for all four alternatives in the focused array for information. For all four alternatives, the following were assumed: a minimum design significant wave height of 3.5 ft with a peak period of 3.7 s and storm surge of 3.8 ft NAVD88, corresponding to a return interval of 1 year (events that have a 100% of occurrence every year). However, the alternatives are also checked against wave climate similar to Hurricane Isabel (2003), significant wave height of 4.6 ft with the peak period of 4.1 and surge of 6.3 ft NAVD88 for resiliency.

As discussed in **4.0 Alternatives**, there are three general types of shoreline erosion control structures: "hard", "soft", and "hybrid." For this site, both "hard" and "hybrid" erosion control alternatives were considered. The "hard" erosion control alternatives include rock revetments and rock sills designed to varying degrees of protection while the "hybrid" erosion control alternative is a "living shoreline" which combines offshore rock sills with sand fill and wetland planting. Rock (sometimes known as riprap) sills and revetments have a sloped and roughened face that decrease wave reflection and associated bottom scour. Rock material is extremely durable and may persist for 50 years or longer.

According to the City of Newport News, a minimum of 10 ft must be maintained from the top of the bank slope of the erosion control alternative and the adjacent roadway. In order to minimize seaward impact of the all the alternatives, for the 10% design it was assumed that the top of the bank slope for each of the alternatives would be set at 10 ft from the roadway. During the Preconstruction Engineering and Design (PED) phase this distance can be evaluated further and potentially adjusted to create a larger buffer between the top of slope and the roadway. The 10% drawing for each of the Alternatives is shown in **Attachment 3: Focused Alternatives 10% Drawings**.

#### 8.2. Alternative 1- Rock Sill with Vegetated Slope

This Alternative comprises a low rock sill that will protect against the most frequent erosive events at the base of a vegetated slope composed of biodegradable erosion control blankets. Biodegradable erosion control blankets are typically made of biodegradable materials which are designed to hold seeds and soil in place until vegetation is established. This alternative is a similar design used in adjacent properties to the project shoreline. The crest elevation of the low crested sill is set at +5.0 ft NAVD88, which will protect against high tide when considering water levels and overtopping. The low crested sill would be overtopped during severe storm events similar to Hurricane Isabel. However, the vegetation and grading of the slope behind would provide some protection against erosion during these events.

Armor stone weights for the proposed rock sills were selected using the Breakwater Design Using Hudson and Related Equations module as presented in CEDAS: ACES. CEDAS stands for the Coastal Engineering Design & Analysis System and the ACES tool, within CEDAS, is an

interactive computer-based design and analysis system in the field of coastal engineering containing six functional areas: wave prediction, wave theory, wave transformation, structural design, wave run-up, and littoral processes. This application provides estimates for the armor weight, minimum crest width, armor thickness, and the number of armor units per unit area of a breakwater using Hudson and related equation. These equations were used to compute the minimum required median armor weight as a function of:

- Armor Unit Weight (Wr)
- Wave Height (Hi)
- Stability coefficient (KD)
- Layer coefficient (k delta)
- Average porosity (P)
- Cotangent of structure slope (cotθ)
- No. of units comprising thickness of layer (n)

For the above conditions, the design parameters for the breakwaters were determined to be as followed:

- Single armor unit weight (w)
- Minimum crest width (B)
- Average layer thickness (r)
- No single armor units per unit surface area (Nr)

Based on preliminary estimates using the Hudson equation, the rock sill design would be constructed using armor stone/rip rap with  $D_{50}$  weight = 750 lbs ( $D_{50}$  = 1.5 -1.75 ft), a crest width of 5 ft, and a minimum armor thickness of 3.5 ft (equal to  $2D_{50armor}$ ). This size stone is in the range of VDOT (Virginia Department of Transportation) Class III armor stone/rip rap (VDOT 2016).

| Case: Breakwater design (3.5 ft wave)                   |         |                          |  |  |  |  |  |  |
|---|---------|--------------------------|--|--|--|--|--|--|
| Breakwater Design Using<br>Hudson and Related Equations |         |                          |  |  |  |  |  |  |
| Armor unit weight (Wr):                                 | 165.000 | lb/ft³                   |  |  |  |  |  |  |
| Wave height (Hi):                                       | 3.500   | ft                       |  |  |  |  |  |  |
| Stability coefficient (KD):                             | 1.200   |                          |  |  |  |  |  |  |
| Layer coefficient (k delta):                            | 1.020   |                          |  |  |  |  |  |  |
| Average porosity (P):                                   | 37.000  | %                        |  |  |  |  |  |  |
| Cotan of structure slope (cot theta):                   | 2.000   |                          |  |  |  |  |  |  |
| No. of units comprising thickness of layer (n):         | 2.000   |                          |  |  |  |  |  |  |
|   |         |                          |  |  |  |  |  |  |
| Single armor unit weight (w):                           | 749.189 | lb                       |  |  |  |  |  |  |
| Minimum crest width (B):                                | 5.06707 | ft                       |  |  |  |  |  |  |
| Average layer thickness (r):                            | 3.37805 | ft                       |  |  |  |  |  |  |
| No single armor units per unit<br>surface area (Nr):    | 468.705 | per 1000 ft <sup>2</sup> |  |  |  |  |  |  |

Figure 8.1 Results from CEDAS: ACES Run

Class III stones shall consist of stones which weigh from 500 pounds to 1,500 lbs each with at least 50% weighing more than 900 pounds and approximately 10% weighing less than 500 pounds (VDOT 2016).

Figure 8.2 shows one of ACES results completed to evaluate overtopping at the NACCS 1 year event. This determined that the rock sill would overtop with still water levels and wave runup combined.

| Case:  |                  |       |                                  |        |          |  |  |  |  |
|--|------------------|-------|----------------------------------|--------|----------|--|--|--|--|
| Wave Runup and Overtopping on Impermeable Structures |                  |       |                                  |        |          |  |  |  |  |
| Wave type: Irregular Slope type: Rough               |                  |       |                                  |        |          |  |  |  |  |
| Rate estimate:                                       | Runup and Overto | pping |                                  |        |          |  |  |  |  |
| Breaking criteria:                                   | 0.780            |       |                                  |        |          |  |  |  |  |
| Incident significant wave ht (Hi):                   | 2.260            | ft    | Runup for significant waves (R): | 2.854  | ft       |  |  |  |  |
| Peak wave period (T):                                | 3.700            |       | Onshore wind velocity (U):       | 20.000 | ft/sec   |  |  |  |  |
| COTAN of nearshore slope (cot phi):                  | 100.000          |       | Deepwater significant wave (Ho): | 2.258  | ft       |  |  |  |  |
| Water depth at structure toe (ds):                   | 4.000            | ft    | Relative height (ds/Ho):         | 1.772  |          |  |  |  |  |
| COTAN of structure slope (cot theta):                | 2.000            |       | Wave steepness (Ho/gT²):         | 0.005  |          |  |  |  |  |
| Structure height above toe (hs):                     | 5.000            | ft    | Overtopping coef(alpha):         | 0.072  |          |  |  |  |  |
| Rough slope coefficient(a):                          | 0.956            |       | Overtopping coef(Q*o):           | 0.004  |          |  |  |  |  |
|  | 0.398            |       | Overtopping rate (Q):            | 0.196  | ft³/s-ft |  |  |  |  |

Figure 8.2 Results from CEDAS: ACES Run for Wave Runup and Overtopping at NACCS 1 YR Event

The preliminary design also includes a 5 ft wide toe for the sill, a 0.75-1 ft thick bedding layer (from CEM VI-5-11 where bedding layer thickness =  $0.5\,D_{50armor}$ ) under the armor stone composed of VDOT No. 1 aggregate stone (100% stones finer than 4 inch sieve and maximum 5% of stones finer than  $\frac{3}{4}$  inch sieve), and geotextile fabric beneath the bedding layer. According to the slope stability analysis (See **Geotechnical Engineering Evaluation of Alternatives**) the minimum slope inclination required for this alternative is 1V:3H.

#### 8.3. Alternative 2- Full Rock Revetment

This Alternative 2 consists of a two-layer rock revetment placed at a 1V:3H (See **Geotechnical Engineering Evaluation of Alternatives**) on the entire bank between approximately -1 ft and +25 ft NAVD88 (existing top bank elevation). According to **Table 5.5**, a revetment of this size will protect the shoreline against all potential extreme storm events from 1 year storms to 10,000 year storms. At an elevation of +25 ft NAVD88 this revetment will also potentially be resilient against 100 years of SLC to the year 2122 for 10,000 year extreme storm events. Based on preliminary estimates, the design would be constructed using VDOT (Virginia Department of Transportation) Class III armor stone/rip rap with a minimum armor thickness of 3.5 ft and crest width of 5 ft. The preliminary design also includes an 8 ft wide toe for the revetment to protect against scour, a 0.75 – 1 ft thick bedding layer under the armor stone composed of VDOT No. 1 aggregate stone, and geotextile fabric beneath the bedding layer.

#### 8.4. Alternative 3- Partial Rock Revetment with Vegetated Slope

This Alternative 2 consists of a partial two-layer rock revetment placed at a 1V:3.5H (See **Geotechnical Engineering Evaluation of Alternatives**) on the bank between approximately -1 ft and +10 ft NAVD88. A revetment with a +10 ft elevation will protect against storms with a 20 percent probability of occurrence (5 year) with wave run-up and water levels considered. Based on preliminary estimates, the design would be constructed using VDOT (Virginia Department of Transportation) Class III armor stone/rip rap with a minimum armor thickness of 3.5 ft and crest width of 5 ft. The preliminary design also includes an 8 ft wide toe for the revetment to protect against scour, a 0.75 -1 ft thick bedding layer under the armor stone composed of VDOT No. 1 aggregate stone, and geotextile fabric beneath the bedding layer. The remaining slope from +10 ft to +25 ft NAVD88 would be stabilized with biodegradable erosion control blankets.

#### 8.5. Alternative 4- Living Shoreline with Vegetated Slope

This Alternative includes a living shoreline featuring a low crested offshore rock sill breakwaters and approximately 40 FT wide strip of wetland vegetation behind the sills. A salient is the preferred shoreline response for a detached breakwater system for the Corp as stated in EM 1100-2-1100/Coastal Engineering Manual (CEM) and EM 1110-2-1617 "Coastal Groins and Nearshore Breakwaters." This is to allow longshore sediment transport to continue to move through the project area to downdrift beaches. Salient are likely to predominate when the breakwaters are sufficiently far from shore, short relative to incident wavelength, and relatively transmissible (low crested or large gaps with low sediment input). Wave action and longshore currents tend to keep the salient from connecting to the structure. Figure 8.3 displays the design variables considered for the preliminary design of the offshore sills. There are three dimensionless ratios, Y/ds, Ls/Lg, and Ls/Y which are important to the design of breakwaters that will form. Short breakwaters at greater distances from the shore tend to favor salient formation.

The Coastal Engineering Manual (CEM) states that permeable structures systems that are partly submerged and have large gaps will help minimize the chance of tombolos forming, favoring a salient system. **Table 8.1** (Table 4-4 from the EM 1110-2-1617) helps guide on which  $L_s/Y$  ratio should be targeted to get a salients. For the preliminary design  $L_s/Y < 1.5$  was used as the target ratio.

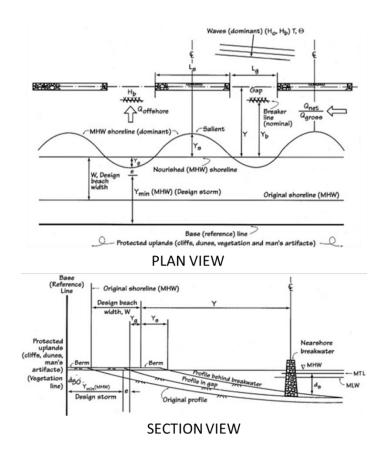


Figure 8.3 Salient Formation Diagram (Image courtesy of CEM V-3-21).

Table 8.1 Conditions for the Formation of Salient (Table V-3-6 from the CEM)

|                   | Conditions for the Formation of Sali | ents                           |
|-------------------|--------------------------------------|--------------------------------|
| L/Y<1.0           | No tombolo                           | Shore Protection Manual (1984) |
| L/Y < 0.4 to 0.5  | Salient                              | Gourlay (1981)                 |
| L/Y = 0.5 to 0.67 | Salient                              | Dally and Pope (1986)          |
| L/Y<1.0           | No tombolo (single breakwater)       | Suh and Dalrymple (1987)       |
| L/Y<2 b/L         | No tombolo (multiple breakwater)     | Suh and Dalrymple (1987)       |
| L/Y<1.5           | Well-developed salient               | Ahrens and Cox (1990)          |
| L/Y<0.8 to 1.5    | Subdued salient                      | Ahrens and Cox (1990)          |

Based on the information provided in these references, several combinations for sill length, gap width, and distance offshore were considered for the offshore sills. The length of the shoreline where these would be placed was also a consideration. The preliminary design of the offshore sills as sills with a length (Ls) of 70 ft, gap width (Lg) of 30 ft, and distance of 50 ft offshore (Y) which results in a ratio  $L_s/Y = 1.4$  which should form a salient. Plotted on **Figure 8.4** (Figure V-3-22 in the CEM), the combinations (assuming  $d_s = 1.2$  ft, the assumed depth at the sill) show that the ratio  $Y/d_s$  and  $L_s/L_g = 2.33$  also support the theory that the preliminary design should form salient.

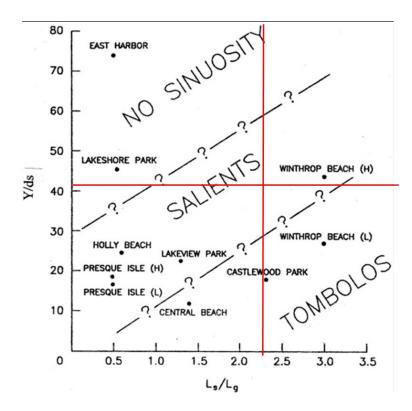


Figure 8.4 Dimensionless plot of nearshore breakwater projects for Y/ds versus Ls/Lg.

Gaps are also required in the offshore sills to the area to be planted with wetland to be partially submerged during high tide, a requirement for the survival of intertidal wetland species such as *Spartina alterniflora*.

Based on preliminary estimates, the offshore rock sill design would be constructed using VDOT (Virginia Department of Transportation) Class III armor stone/rip rap with a minimum armor thickness of 3.5 ft and crest width of 5 ft. Class III stones shall weigh from 500 pounds to 1,500 lbs each with at least 50% weighing more than 900 pounds and approximately 10% weighing less than 500 pounds (VDOT 2016). The preliminary design also includes a 5 ft wide toe for the sill, a 0.75 - 1 ft thick bedding layer under the armor stone composed of VDOT No. 1 aggregate stone (100% stones finer than 4 inch sieve and maximum 5% of stones finer than ¾ inch sieve), and geotextile fabric beneath the bedding layer. Fill would be placed behind the wetlands from elevation +0.0 to +4.0 ft NAVD88 (on a 1V:10H slope), which are the heights used in a similar living shoreline project along the James River approximately 2.3 miles northeast of the project site at Kettle Pond (Figure 8.5). The slope landward of +4.0 ft NAVD88 would be filled to a 1V:4H slope (See Geotechnical Engineering Evaluation of Alternatives) and stabilized with biodegradable erosion control blankets.

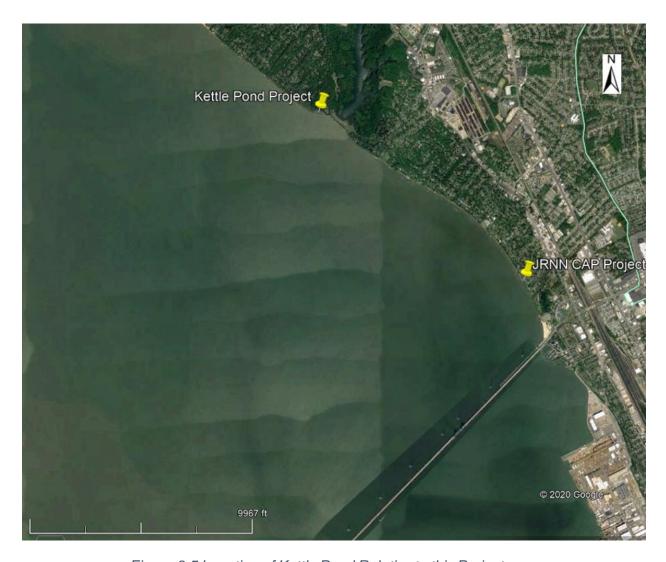


Figure 8.5 Location of Kettle Pond Relative to this Project

Similar to Alternative 1, the +5 ft elevation rock sill will protect against high tides. The low crested sill would be overtopped during severe storm events similar to Hurricane Isabel however the vegetation and grading of the slope behind would provide some protection against erosion during these events. Also, the success of a living shoreline depends on longshore sediment transport to continually help nourish the wetland salient, however many of the adjacent shorelines both north and south of the project site are already hardened with rock sills or revetments which would impact the amount of sediment available to help maintain the wetland salient. Sediment transport modeling, which was not part of this feasibility analysis, would be necessary to project the success of this alternative if constructed.

### 9.0 Cost Analysis

The cost of this project is explained in **Attachment 2: Cost Estimate Sub Appendix**. Since this is a CAP study and under 40 million dollars, a formal cost risk analysis using the Crystal Ball software was not required. Therefore, a cost contingency of 30% was used due to the feasibility (Class 4 estimate) phase of the project until an Abbreviated Risk Analysis can be performed within a reasonable time period.

#### 10.0 Risk and Uncertainty

Risk is a measure of the probability (or likelihood) and consequences of uncertain future events. Risk analysis is a decision-making framework that explicitly evaluates the level of risk if no action is taken and recognizes the monetary and non-monetary costs and benefits of reducing risks when making decisions. A variety of variables and their associated uncertainties may be incorporated into the risk assessment of a coastal storm risk management study. Design conditions for major coastal and flood protection projects are often vague and design parameters contain large uncertainties. The primary factor of uncertainty is the confidence of the NACCS water levels and wave heights used in the design of the alternatives. Another risk to the project is the potential impacts of settlement after construction and sea level rise. The NOAA Relative Sea Level Change (RSLC) rates are subject to change and may add risk of increase or decrease.

Another factor of uncertainty is the condition of the existing rock protection on the private property with the pier. The analysis for this report assumes that the new rock sill constructed for Alternative 1 will tie into the existing rock sill. However, this also assumes that the private property owner will maintain their own rock sill. If the private property owner does not maintain their rock sill and it fails, this could make the USACE rock sill to be constructed for this project more vulnerable to failure itself.

#### 11.0 **Constructability**

The primary constructability issue for this project is site access. Access by water will be difficult as the project site is located in shallow water. Access and staging by land will also be difficult as there is limited space available at the top of the slope bank on which to stage and stockpile materials and equipment without impacting the adjacent roadway. Construction in tight quarters tends to take longer, which increases costs, and may be more dangerous for the workers. Impacts to the roadways will need to be managed so as to ensure that the adjacent private property owners maintain access to their properties and driveways. A solution to this issue is potentially providing an offsite staging area to the contractor, one that is somewhat nearby the site where the majority of required equipment and materials can be staged which can be moved to the site as needed for construction. Therefore, at the site the contractor will only require smaller stockpiles. Figure 11.1 shows potential laydown sites for the contractor to use which are all owned by the City of Newport News. The three areas total approximately 6,000 square feet. Area 2 is next to the project site.



Figure 11.1 Potential Laydown Areas

Working around the existing pier could also be difficult. If the pier is to remain, a lot of care will need to be taken in that area so as not to disturb the existing structure, especially while placing rock to tie into the existing rock protection on the private property with the pier.

Excavation and construction near and/or on top of the river bank may result in failure of the natural river bank. The Contractor shall proceed with extreme caution and will be required to provide whatever means necessary to prevent failure of the natural river bank. The Contractor shall take into consideration if construction may need to proceed from the toe of the bank until the bank is adequately supported.

Groundwater was encountered in the Geotechnical Engineering Data Report dated May 10, 2013 at approximate depths of 19 to 28 feet below the ground surface of the river bank. As indicated in the report, the final design should anticipate the fluctuation of the hydrostatic water table depending on variations in precipitation, surface runoff, pumping, tidal action, river levels, evaporation, leaking utilities, and similar factors. Excavations will encounter groundwater and seepage water which will require dewatering methods such as well points or wells to lower the groundwater and allow construction under dry conditions. If the groundwater is not properly controlled the soil may begin to slough and unravel during the slope excavation. The Contractor shall also consider the fluctuating river levels which may require construction of temporary cofferdam. To access areas of the river bank and river area that will require installation of geotextile that lie below MLLW, temporary cofferdams may also be required. Considerations for geotextile installation should be included in the design specifications during the design phase.

During construction, weather could also impact work and schedule. **Table 11.1** displays monthly anticipated adverse weather delays based on the National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the baseline for monthly weather time evaluations.

Table 11.1 Monthly Anticipated Adverse Weather Delay Work Days Based on (5) day Work Week

| MONTH     | WEATHER DAYS |
|-----------|--------------|
| January   | 10           |
| February  | 9            |
| March     | 8            |
| April     | 6            |
| May       | 7            |
| June      | 7            |
| July      | 9            |
| August    | 6            |
| September | 5            |
| October   | 5            |
| November  | 6            |
| December  | 9            |

#### 12.0 Preconstruction Engineering and Design (PED) Consideration

During PED, design refinements will be conducted for the project based on new field investigation and analyses. This chapter will discuss, not only what information and field investigation will be needed to achieve a final design, but also what has been proposed in this study and how it may be changed or adjusted.

#### 12.1. Updated Surveys

It is recommended that an updated topographic any bathymetric survey be performed during PED. New surveys may require an adjustment in the proposed sill and slope designs. The updated surveys should also make sure to take as many points as possible on the existing debris along the shoreline so as to help improve the cost estimate to remove this debris. The topographic survey shall also require locating utilities. A recent and comprehensive topographic and hydrographic survey will be required in order to develop construction plans and specifications. All surveys shall meet the requirements of EM 1110-2-1003 Hydrographic Surveying Manual (2013) and EM 1110-1-1005 Topographic Surveying Manual (2007).

# 12.2. Subsurface Geotechnical Exploration and Re-evaluation of Design Slope Stability

Although a Geotechnical Engineering Data Report was completed by Schnabel in 2013 and provided by the City of Newport News, it is recommended that another geotechnical exploration be performed during the design phase. Although the 2013 report provides in-situ soils data, additional Standard Penetration Testing (SPT) in accordance with American Society for Testing and Materials (ASTM) D1586 and soils laboratory testing is recommended to confirm the results provided by Schnabel in the 2013 report.

It is recommended that a minimum of four (4) SPT borings be performed within the proposed project limits of the river bank. The locations shall be evenly distributed over the proposed 600-foot length of the project site or over the project length as determined during the preconstruction design phase (PED). The minimum depth to which the borings shall extend is to 40 feet below ground surface. Soils laboratory testing shall consist a minimum of Atterberg limits in accordance with ASTM D4318, natural moisture content in accordance with ASTM D2216, and particle-size analysis of soils without hydrometer in accordance with ASTM D422 and D1140. If roadway repairs are determined to be required by the Contractor during the PED phase, California Bearing Ratio single point tests shall be required in accordance with ASTM D698 and the most recent version of the Virginia Department of Transportation (VDOT) Pavement Design Guide for Subdivision and Secondary Roads in Virginia.

After the geotechnical exploration data and soils laboratory results have been evaluated by the Geotechnical Engineer, a re-evaluation of the slope stability analysis shall be performed to verify that the design meets the factor of safety requirements in US Army Corps of Engineers Engineering Manual EM 1110-2-1902 Table 3-1.

#### 12.3. **Design Refinements**

The assumptions made about the design conditions (wave conditions and water levels) should be reevaluated during PED and possibly updated as new SLR rates are provided through NOAA. The level of protection of the rock sill should also be reevaluated and refined to maximize the effectiveness of the rock sill against the most frequency erosive shoreline events. The toe design should be reviewed again to make sure that the design will minimize toe scour. Alternative materials should also be considered. For example, this study assumed biodegradable erosion control blankets for the vegetated slopes, but during PED other vegetated slope materials such as geotextile bags should be evaluated for their potential as an effective stabilization material. Additionally, marine mattresses could be a good product for the bedding layer and could potentially help increase the constructability of the project.

#### 12.4. Existing Pier Assumptions

This study assumes that the existing pier is to remain in place and that the new rock sill will tie into the existing rock sill on the private property where the pier is located. This was an assumption made based on the site visit and conditions of the existing rock sill on the private parcel at the time of that site visit. During PED, more time should be taken to evaluate the condition of the private property rock sill (existing rock size and sill elevation) to confirm or refute that assumption. The PDT is also aware of existing requests for permits to construct two additional new private piers along the project shoreline which may be constructed prior to construction. If these piers are constructed during PED, the impacts of their construction on the project should be evaluated.

#### 13.0 References

- Basco, D.R. and Shin, C.S., 1993. "Design Wave Information for Chesapeake bay and Major Tributaries in Virginia," Report No. 93-1, Dept. of Civil Engineering, Old Dominion University, Norfolk, VA, 48p.
- 2. Boon, J.D., J.M. Brubaker, and D.R. Forrest. 2010. Chesapeake Bay Land Subsidence and Sea Level Change. VIMS Special Report 425 in Applied Science and Ocean Engineering. November 2010. National Oceanic and Atmospheric Administration (NOAA). https://tidesandcurrents.noaa.gov/. 8638610, Sewells Point, Virginia.
- 3. CH2MHILL 2013. James River Bank Stabilization Alternative Analysis. Prepared for City of Newport News.
- 4. Fagherazzi, S., and P. L. Wiberg (2009), Importance of wind conditions, fetch, and water levels on wave-generated shear stresses in shallow intertidal basins, J. Geophys. Res., 114, F03022, doi:10.1029/2008JF001139.
- 5. Hardaway, C.S, and Anderson, G.L., 1980. Shoreline Erosion in Virginia. Educational series; no 31. Virginia Institute of Marine Science. College of William and Mary. https://doi.org/10.21220/V59N0Q
- 6. Hardaway, C.S, and Byrne, R.J., 1999. "Shoreline Management in Chesapeake Bay", Special Report in Applied Marine Science and Ocean Engineering Number 356, Virginia Institute of Marine Science, College of William and Mary, 55p
- 7. IEM. 2020. Station Data & Metadata: VA\_DCP: [DOMV2] Dominion Terminal Associates 8638511 [2011-]. Retrieved from Iowa Environmental Mesonet Web site: mesonet.agron.iastate.edu/sites/site.php?station=DOMV2&network=VA\_DCP
- 8. Sant-Miller, A., Huber, M., and White, K.D. 2018. US Army Corps of Engineers Sea Level Tracker User Guide. US Army Corps of Engineers: Washington, DC.
- 9. USACE.1992. Coastal Groins and Nearshore Breakwaters. Engineer Manual 1110-2-1617. U.S. Army Corps of Engineers.
- 10. USACE. 2006. Coastal Engineering Manual (CEM). U.S. Army Corp of Engineers
- 11. USACE. 2007. Topographic Surveying Manual. Engineer Manual 1110-1-1005. U.S. Army Corps of Engineers.
- 12. USACE. 2009. Engineering and Design: Policies for Referencing Project Evaluation Grades to Nationwide Vertical Datums. Engineer Regulation 1110-2-8160. U.S. Army Corps Engineers.

- 13. USACE. 2013. Hydrographic Surveying Manual. Engineer Manual 1110-2-1003. U.S. Army Corps of Engineers.
- 14. USACE. 2015. Recent US Climate Change and Hydrology Literature Applicable to US Army Corps of Engineers Missions Mid Atlantic Region. Report No. CWTS-2015-09.
- 15. USACE. ECB 2018-14. Guidance for Incorporating Climate Change Impacts to Inland Hydrology in Civil Works Studies, Design, and Projects. Issued 10 Sep 18 Expires: 10 Sep 20.
- 16. USACE. 2019a. Incorporating Sea Level Change in Civil Works Programs. Engineer Regulation 1100-2-8162. U.S. Army Corps of Engineers.
- 17. USACE. 2019b. Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation. Engineer Pamphlet 1110-2-1. U.S. Army Corps Engineers.
- 18. VDOT. 2016. Road and Bridge Specifications. Virginia Department of Transportation.

#### 14.0 List of Attachments

**Attachment 1: James River Newport News Alternative Quantity Summaries** 

**Attachment 2: Cost Estimate Sub Appendix** 

**Attachment 3: Focused Alternatives 10% Drawings** 

**Attachment 4: GeoStudio Slope Stability Analysis** 

**Attachment 5: Schnabel Geotechnical Report Provided by Newport News** 

# ATTACHMENT 1: JAMES RIVER NEWPORT NEWS ALTERNATIVE QUANTITY SUMMARIES

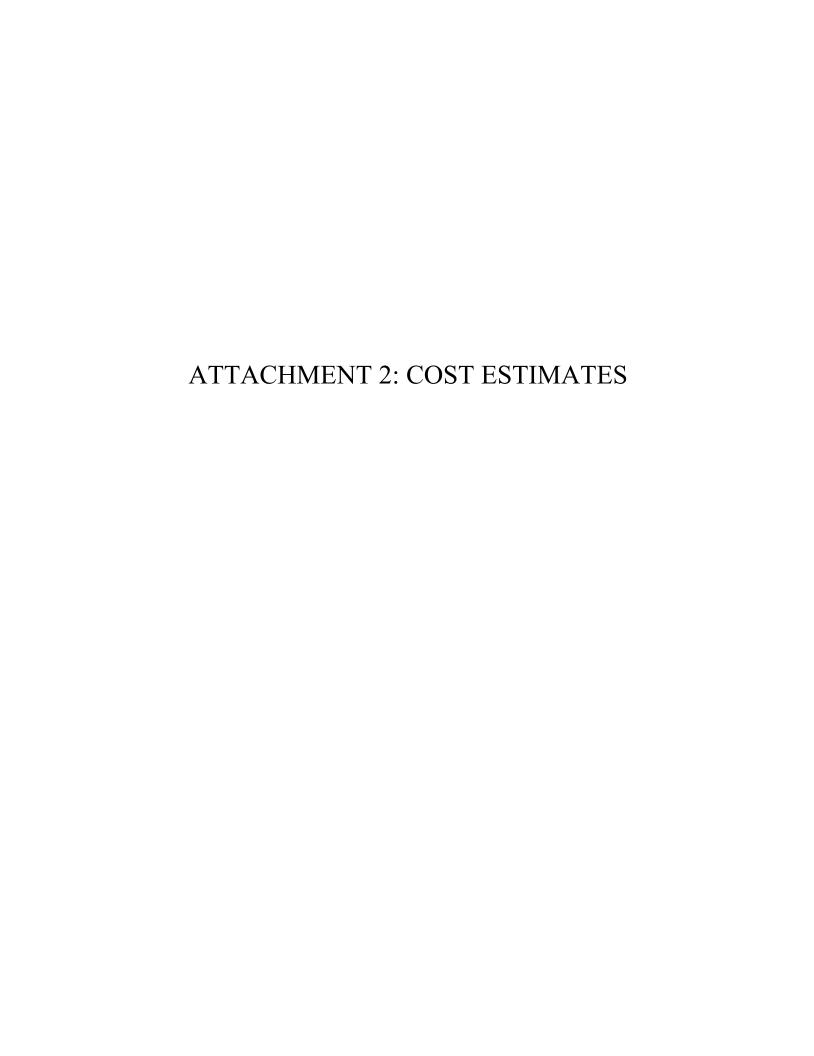
|   |                   |                         |                                     | Gra      | ding      |   |                                     |                               |   |   |
|---|-------------------|-------------------------|-------------------------------------|----------|-----------|---|-------------------------------------|-------------------------------|---|---|
|   | Armor Rock [TONS] | Bedding Stone<br>[TONS] | Geotextile<br>Filter Fabric<br>[SY] | Cut [CY] | Fill [CY] | Extra Fill (trucked in if Cut volume isn't enough) [CY] | Slope Stabilization<br>Area<br>[SF] | Wetland Fill Material<br>[CY] | # Wetland Plants                            | Estimated<br>Demolition/Debris<br>Removal Quantity [CY] |
| Product:  | (VDOT Class III)  | (VDOT NO. 1)            |                                     |          |           |   | Slope Stabilization<br>Blanket      | (Clean Sand Fill)             | (Spartina Alterniflora and Spartina Patens) |   |
| Alternative 1- Rock Sill with<br>Vegetated Slope              | 2866              | 787                     | 1596                                | 3727     | 4258      | 531   | 49542                               |                               |   | 3590  |
| Alternative 2- Full Rock Revetment                            | 11980             | 2848                    | 7459                                | 6989     | 1766      |   |                                     |                               |   | 718   |
| Alternative 3- Partial Rock<br>Revetment with Vegetated Slope | 6329              | 1401                    | 3909                                | 3505     | 4747      | 1242  | 39239                               |                               |   | 3590  |
| Alternative 4- Living Shoreline with<br>Vegetated Slope       | 3023              | 613                     | 1836                                | 2450     | 9979      | 7529  | 62125                               | 2376                          | 20515                                       | 3590  |

Bulking factor for Cut:

1.2

Notes:

1) Assume all cut material can be used as fill where necessary.



# JAMES RIVER EMERGENCY STREAMBANK AND SHORELINE PROTECTION

Newport News, Virginia

### Cap Section 14 of the 1946 Flood Control Act, as amended Feasibility Report



COST ENGINEERING APPENDIX July 2021

## Contents

| SECTI      | $\mathbf{ON}$    | 1  | GENER | ΔT                  |
|------------|------------------|----|-------|---------------------|
| יו ו שעוכו | $\mathbf{v}_{1}$ | 1. |       | $\Delta \mathbf{L}$ |

| 1.1 Guidance   | 3                |
|--|------------------|
| 1.2 Computer Aided Software  | 3                |
| SECTION 2. THE COST ESTIMATE REPORT  |                  |
| 2.1 Report Description 2.2 Estimate Qualifications 2.3 Quantities 2.4 Estimate Assumptions  SECTION 3. CODE OF ACCOUNTS  | 3                |
| 3.1 Current Working Estimate 3.2 Code of Account 01: Lands and Damages 3.3 Code of Account 16: Bank Stabilization 3.4 Code of Account 30: Planning, Engineering, and Design 3.5 Code of Account 31: Construction Management 3.6 Code of Account 32: 01 Mobilization, Demobilization & Preparatory Work | 5<br>5<br>5<br>5 |
| SECTION 4. CONSTRUCTION SCHEDULE   | 6                |
| SECTION 5. TOTAL PROJECT COST  | 7                |
| SECTION 6. TSP DETAIL ESTIMATE   | 8                |
| SECTION 7. COST RISK ANALYSIS  | 9                |
| SECTION 8. SECTION 8. LABOR RATES  | 10               |

#### **SECTION 1. GENERAL**

#### 1.1 Guidance

- 1. ER 1110-2-1302, CIVIL WORKS COST ENGINEERING
- 2. ER 1110-2-1150, ENGINEERING AND DESIGN FOR CIVIL WORKS PROJECTS
- 3. ETL 1110-2-573, CONSTRUCTION COST ESTIMATING GUIDE FOR CIVIL WORKS
- $4.\ ECB\ 2007\text{-}17,\ APPLICATION\ OF\ COST\ RISK\ ANALYSIS\ TO\ DEVELOP\ CONTINGENCIES\ FOR\ CIVIL\ WORKS\ TOTAL\ PROJECT\ COSTS$

#### 1.2 Computer Aided Software

- 1. Micro-Computer Aided Cost Estimating System (MCACES), Second Generation (MII). MII 4.4.2
- 2. Abbreviated Risk Analysis Spreadsheet maintained by USACE Cost Center of Expertise, Walla Walla, WA.

#### SECTION 2. THE COST ESTIMATE REPORT

#### 2.1 Report Description

This report is tentative in nature and is intended to be used for planning purposes only.

The estimate reflects the very early stages and concepts of design. The project area is located entirely within the City of Newport News, VA along the north bank of the James River, west of the James River Bridge (US Routes 17/258) and between New Market Creek and North Avenue, immediately adjacent to River Road. This civil works project includes stabilizing approximately 600 feet of riverbank along the James River, which has eroded over time. The resulting 25-foot high receding sandy bluff is an imminent threat to existing public facilities, causing continual loss of land, threatening exiting public utilities, including the adjacent River Road, electric, gas, communications, public water and sewer lines.

The Tentatively Selected Plan (TSP) was chosen based on economic factors indicating the greatest effectiveness. The Cost Estimate supporting the TSP is prepared using the MCACES, Second Generation (MII 4.4.2).

- MCACES references the MII English Cost Book 2016 as the source library for all construction based activities unless otherwise adjusted by the user.
- Equipment cost is referenced through the MII Equipment Region II 2018 based on the EP 1110-1-8, Construction Equipment and Operation Expense Schedule 2018 version.
- MCACES Labor Defaults to Labor National Seattle 2016. This data has been adjusted by the User to reflect region and Virginia labor rates as illustrated in the Department of Labor Wage Rates with a reasonable markup for payroll taxes, insurance, fringes and burdens. DOL Wage Rates are referenced in Section 8.

Based on economic evaluation, Alternative 1 was chosen as the TSP. This plan consists of constructing a continuous rock sill along parallel to the existing shoreline with a crest elevation of +5 ft NAVD88, crest width of 5 ft, and installing soil stabilization blankets from the top of the rock sill to the top of the shoreline bank on a 1V:3H slope to create a vegetated slope. It is estimated that this alternative will require approximately 2900 tons of VDOT Class III riprap, 800 tons of VDOT No. 1 Stone, 4300 CY of fill, 1600 SY of geotextile filter fabric, 700 CY of debris removal, and 35,000 SF of soil stabilization blankets.

The Current Working Estimate (CWE) for Construction of the TSP is approximately \$1,488,403.00
These costs have been established to be the Baseline Cost Estimate for 1 October 2020 price levels. This value does not include contingency and escalation through the mid-point of construction, yielding the fully funded construction dollar value. Please see the TPCS for this value.

#### 2.2 Estimate Qualifications

- The project construction cost estimate is prepared as though the Government were a prudent and well-equipped contractor estimating the proposed measures based on the current feasibility level design. The estimates are developed in as much detail as can be assumed based on the best information available at this time.
- The estimate adheres to the civil works work breakdown structure and was internally verified for quality control addressing cost, schedule and risk issues as practical. The estimate was developed based on a limited scope of work. Record of assumptions, construction methods, concerns, and unknowns are maintained within the MII estimate for each construction task.
- Parametric estimating techniques were used to develop the estimate. They are based on engineering parameters, historical information, practical construction practices and engineering principles. Project definition characteristics to include physical properties of the project site, functional purpose of the project and methods of construction were considered when developing the estimate.
- The structure of the cost estimate is planned so that all tasks are logical and are in accordance with appropriate plan of construction and good understanding of the project scope. A unit cost for each task is developed in an effort to increase the accuracy of the estimate and includes consideration given to site specific conditions as they pertain to constructability, biddability, and operability issues.
- The district developed a baseline cost estimate within which the project can be designed and constructed. An MII estimate was prepared with careful analysis of contingencies appropriate for each feature. No new surveys were collected to evaluate the final array of alternatives and only existing data was used. Up to date surveys and data will be required as the project moves forward towards solicitation.
- The estimated costs developed for this project are fair and reasonable to a well-equipped and competent contractor and include overhead costs and profit. Actual crew sizes, equipment and production rates that contractors have achieved previously on similar types of projects were implied in developing the unit costs for the work items contained in this project.
- Unit prices for construction features were developed using the MII Cost Book database and drew from expertise maintained within the Norfolk District.

#### 2.3 Quantities

|   |                   |                         |                                     | Grad     | ding      |  |                                     |                               |   |   |
|---|-------------------|-------------------------|-------------------------------------|----------|-----------|--|-------------------------------------|-------------------------------|---|---|
|   | Armor Rock [TONS] | Bedding Stone<br>[TONS] | Geotextile<br>Filter Fabric<br>[SY] | Cut [CY] | Fill [CY] | Extra Fill (trucked in<br>if Cut volume isn't<br>enough)<br>[CY] | Slope Stabilization<br>Area<br>[SF] | Wetland Fill Material<br>[CY] | # Wetland Plants                            | Estimated<br>Demolition/Debris<br>Removal Quantity [CY] |
| Product:  | (VDOT Class III)  | (VDOT NO. 1)            |                                     |          |           |  | Slope Stabilization<br>Blanket      | (Clean Sand Fill)             | (Spartina Alterniflora and Spartina Patens) |   |
| Alternative 1- Rock Sill with<br>Vegetated Slope  | 2866              | 787                     | 1596                                | 3727     | 4258      | 531  | 49542                               |                               |   | 3590  |
| Alternative 2- Full Rock Revetment  | 11980             | 2848                    | <b>74</b> 59                        | 6989     | 1766      |  |                                     |                               |   | 718   |
| Alternative 3- Partial Rock<br>Revetment with Vegetated Slope<br>Alternative 4- Living Shoreline with | 6329              | 1401                    | 3909                                | 3505     | 4747      | 1242   | 39239                               |                               |   | 3590  |
| Vegetated Slope   | 3023              | 613                     | 1836                                | 2450     | 9979      | 7529   | 62125                               | 2376                          | 20515                                       | 3590  |

Bulking factor for Cut:

1.2

Notes:

1) Assume all cut material can be used as fill where necessary.

#### 2.4 Estimate Assumptions

- Bid Items and Tasks are based on the English 2016 MII Cost Book.
- Fuel rates are set at \$2.24 for unleaded gasoline, \$2.50 for Off-Road diesel, and \$2.70 for on-road diesel.
- Prime Contractor's job office overhead is set at 15%, home office overhead is set at 10%, profit is set at 10%, and bond is set at 2%.
- It is anticipated that the prime contractor will be a site contractor performing the work herein for ALT 1.
- Construction Duration was estimated at 90 workdays roughly 3 months, however additional time may be added for preconstruction submittals and closeout procedures as design develops.
- It is assumed that no temporary slope stabilization will be required during the demolition phase of the project.
- Preconstruction submittals and project closeout administration is anticipated to be included with the contractors HOOH. It is not detailed out in the construction estimate.
- It is not anticipated that a USACE field office will be required; therefore, no costs are included in the estimate for such.
- Construction Duration was estimated at 90 work days roughly 3 months, however additional time may be added for preconstruction submittals and closeout procedures as design develops.

#### SECTION 3. CODE OF ACCOUNTS

#### 3.1 Current Working Estimate (CWE)

The detailed CWE's are shown in the attached MCACES (Microcomputer Aided Cost Engineering System) files. The estimates are formatted into a Code of Accounts framework in compliance with Civil Works Breakdown Structure. The costs included under each Code of Accounts are described below.

#### 3.2 Account 01: Lands and Damages

The costs included in this account were furnished by the Norfolk District's Real Estate Branch who assessed potential real estate impacts. A contingency of 20% was established for this account by the Real Estate Division.

#### 3.3 Account 16: Bank Stabilization

This plan consists of constructing a continuous rock sill along parallel to the existing shoreline with a crest elevation of +5 ft NAVD88, crest width of 5 ft, and installing soil stabilization blankets from the top of the rock sill to the top of the shoreline bank on a 1V:3H slope to create a vegetated slope. A contingency of 42% was established for this account by the Abbreviated Cost Risk Analysis relative to the initial construction.

#### 3.4 Account 30: Planning, Engineering, and Design

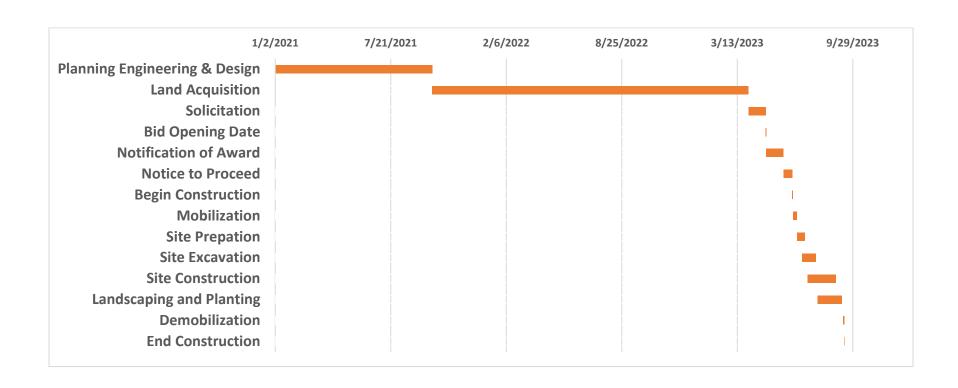
The costs included in this account were furnished by those responsible for performing each activity during PED. This account includes plans, specifications, cost estimates, field investigations, surveys, engineering during construction, environmental/physical monitoring, and project management. A contingency of 20% was established for this account by the Abbreviated Cost Risk Analysis.

#### 3.5 Account 31: Construction Management

This account includes supervision and administration of the contracts by construction management. A contingency of 22% was established for this account by the Abbreviated Cost Risk Analysis.

### SECTION 4 CONSTRUCTION SCHEDULE

# Newport News James River Emergency Shoreline Stabilization Assumed Schedule



### SECTION 5 TOTAL PROJECT COST

Printed:7/22/2021

Page 1 of 2

PROJECT: James River Emergency Shoreline Protection

PROJECT NO: **P2 # 452950** 

LOCATION: Newport News, Vriginia

DISTRICT: Norfolk District

etrict PREPARED: 7/9/2021

POC: CHIEF, COST ENGINEERING, Thomas Rice

This Estimate reflects the scope and schedule in report; Report Name and date

| Civ    | il Works Work Breakdown Structure | ESTIMATED COST |              |             |              |             | PROJECT FIRST COST<br>(Constant Dollar Basis) |                |  |  |                     | TOTAL PROJECT COST<br>FUNDED) |              |              | (FULLY                    |
|--------|-----------------------------------|----------------|--------------|-------------|--------------|-------------|---|----------------|--|--|---------------------|-------------------------------|--------------|--------------|---------------------------|
| WBS    | Civil Works                       | COST           | CNTG         | CNTG        | TOTAL        | ESC         | COST  | ffective Price | (Budget EC):<br>e Level Date:<br>REMAINING<br>COST | 2021<br>1-Oct- 20<br>Spent Thru:<br>1-Oct-15 | TOTAL FIRST         | ESC                           | COST         | CNTG         | FULL                      |
| NUMBER | Feature & Sub-Feature Description | <u>(\$K)</u>   | <u>(\$K)</u> | <u>(%)</u>  | <u>(\$K)</u> | <u>(%)</u>  | <u>(\$K)</u>                                  | <u>(\$K)</u>   | _(\$K)_  | _(\$K)_                                      | <u>(\$K)</u>        | <u>(%)</u>                    | <u>(\$K)</u> | <u>(\$K)</u> | <u>(\$K)</u>              |
| 02     | RELOCATIONS                       | \$1,488        | \$625        | 42%         | \$2,113      |             | \$1,488                                       | \$625          | \$2,113  |  | \$2,113             | 8.5%                          | \$1,615      | \$678        | \$2,293                   |
| 06     | FISH & WILDLIFE FACILITIES        |                | -<br>-<br>-  |             |              | -<br>-<br>- |   |                |  |  |                     | -<br>-<br>-                   |              |              |                           |
|        | CONSTRUCTION ESTIMATE TOTALS:     | \$1,488        | \$625        | -           | \$2,113      | -           | \$1,488                                       | \$625          | \$2,113  |  | \$2,113             | 8.5%                          | <br>\$1,615  | \$678        | \$2,293                   |
| 01     | LANDS AND DAMAGES                 | \$539          | \$108        | 20%         | \$647        |             | \$539   | \$108          | \$647  |  | \$647               | 5.3%                          | \$568        | \$114        | \$681                     |
| 30     | PLANNING, ENGINEERING & DESIGN    | \$298          | \$60         | 20%         | \$358        |             | \$298   | \$60           | \$358  |  | \$358               | 3.7%                          | \$309        | \$62         | \$371                     |
| 31     | CONSTRUCTION MANAGEMENT           | \$298          | \$66         | 22%         | \$364        | 0.0%        | \$298   | \$66           | \$364  |  | \$364               | 10.9%                         | \$331        | \$73         | \$403                     |
|        | PROJECT COST TOTALS:              | \$2,623        | \$858        | 33%         | \$3,481      | -           | \$2,623                                       | \$858          | \$3,481  |  | \$3,481             | 7.7%                          | \$2,822      | \$926        | \$3,748                   |
|        |                                   | CHIEF, COS     | T ENGINEER   | ING, Thoma  | as Rice      |             |   |                |  |  |                     | TAL DD0                       | 150T 000T    |              | +2.740                    |
|        |                                   | PROJECT MA     | NAGER, Ric   | hard Harr   |              |             |   |                |  |  | ESTIMATED TO        |                               | ERAL COST:   | 65%          | <b>\$3,748</b><br>\$2,436 |
|        |                                   | OUIEE DEA      | L FOTATE D   | ) Oi -      | - T-I        |             |   |                |  |  | ESTIMATED           | NON-FED                       | ERAL COST:   | 35%          | \$1,312                   |
|        |                                   | CHIEF, REA     | LESTATE, D   | onna Carrie | r-Tal        |             |   |                |  | 22   | - FEASIBILITY       | STUDY (C                      | AP studies): |              | \$504                     |
|        |                                   | CHIEF, PLAN    | NNING, Susa  | n Conner    |              |             |   |                |  |  | ESTIMA<br>ESTIMATED |                               | ERAL COST:   | 50%<br>50%   | \$304<br>\$200            |
|        |                                   | ACTING CHI     | EF, ENGINE   | ERING, Wa   | yne Miller   |             |   |                |  |  |                     |                               |              | 30 70        |                           |
|        |                                   | CHIEF, OPE     | RATIONS, X   | xx          |              |             |   |                |  | ESTIN  | MATED FEDERA        | L COST C                      | OF PROJECT   |              | \$2,740                   |
|        |                                   | CHIEF, CON     | STRUCTION    | I, XXX      |              |             |   |                |  |  |                     |                               |              |              |                           |
|        |                                   |                |              |             |              |             |   |                |  |  |                     |                               |              |              |                           |

CHIEF, CONTRACTING, Katya Oxley

CHIEF, PM-PB, xxxx

CHIEF, DPM, XXX

Printed:7/22/2021 Page 2 of 2

PROJECT: James River Emergency Shoreline Protection LOCATION: Newport News, Vriginia PREPARED: 7/9/2021 DISTRICT: Norfolk District

This Estimate reflects the scope and schedule in report; Report Name and date POC: CHIEF, COST ENGINEERING, Thomas Rice

| WBS Structure                                     |                           | ESTIMATE                        | D COST     |                              | PROJEC                 | CT FIRST COST<br>Dollar E          |                    | (Constant           |                                      | TOTAL PROJECT (        | COST (FULLY FUNI           | DED)               |                           |
|---|---------------------------|---------------------------------|------------|------------------------------|------------------------|------------------------------------|--------------------|---------------------|--------------------------------------|------------------------|----------------------------|--------------------|---------------------------|
|   | <b>II</b>                 | mate Prepared<br>nate Price Lev |            | <b>22-Oct-20</b><br>1-Oct-20 |                        | am Year (Budge<br>tive Price Level |                    | 2021<br>1 -Oct-20   |                                      |                        |                            |                    |                           |
| WBS Civil Works  NUMBER  A  PHASE 1 or CONTRACT 1 | cost<br>(\$K)<br><b>c</b> | CNTG<br>(\$K)<br><b>D</b>       | CNTG (%) E | TOTAL<br>_(\$K)<br>          | ESC<br>(%)<br><b>G</b> | COST<br>(\$K)<br><b>H</b>          | CNTG<br>_(\$K)<br> | TOTAL<br>_(\$K)<br> | Mid-Point<br><u>Date</u><br><b>P</b> | ESC<br>(%)<br><i>L</i> | COST<br>_(\$K)<br><b>M</b> | CNTG<br>(\$K)<br>N | FULL<br>(\$K)<br><b>O</b> |
| 16 BANK STABILIZATION                             | \$1,488                   | \$625                           | 42.0%      | \$2,113                      |                        | \$1,488                            | \$625              | \$2,113             | 2023Q4                               | 8.5%                   | \$1,615                    | \$678              | \$2,293                   |
|   |                           |                                 |            |                              | _                      |                                    |                    |                     |                                      |                        |                            |                    |                           |
| CONSTRUCTION ESTIMATE T                           | <b>OTALS:</b> \$1,488     | \$625                           | 42.0%      | \$2,113                      |                        | \$1,488                            | \$625              | \$2,113             | ,                                    |                        | \$1,615                    | \$678              | \$2,293                   |
| <b>01</b> LANDS AND DAMAGES                       | \$539                     | \$108                           | 20.0%      | \$647                        |                        | \$539                              | \$108              | \$647               | 2022Q4                               | 5.3%                   | \$568                      | \$114              | \$681                     |
| 30 PLANNING, ENGINEERING & DESI                   | GN                        |                                 |            |                              |                        |                                    |                    |                     |                                      |                        |                            |                    |                           |
| 2.5% Project Management                           | \$37                      | \$7                             | 20.0%      | \$44                         |                        | \$37                               | \$7                | \$44                | 2021Q3                               | 1.9%                   | \$38                       | \$8                | \$45                      |
| 1.0% Planning & Environmental Complia             | nce \$15                  | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2021Q3                               | 1.9%                   | \$15                       | \$3                | \$18                      |
| 8.5% Engineering & Design                         | \$126                     | \$25                            | 20.0%      | \$151                        |                        | \$126                              | \$25               | \$151               | 2021Q3                               | 1.9%                   | \$128                      | \$26               | \$154                     |
| 1.0% Reviews, ATRs, IEPRs, VE                     | \$15                      | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2021Q3                               | 1.9%                   | \$15                       | \$3                | \$18                      |
| 1.0% Life Cycle Updates (cost, schedule           | risks) \$15               | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2021Q3                               | 1.9%                   | \$15                       | \$3                | \$18                      |
| 1.0% Contracting & Reprographics                  | \$15                      | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2023Q4                               | 10.9%                  | \$17                       | \$3                | \$20                      |
| 3.0% Engineering During Construction              | \$45                      | \$9                             | 20.0%      | \$54                         |                        | \$45                               | \$9                | \$54                | 2023Q4                               | 10.9%                  | \$50                       | \$10               | \$60                      |
| 1.0% Planning During Construction                 | \$15                      | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2021Q3                               | 1.9%                   | \$15                       | \$3                | \$18                      |
| Adaptive Management & Monitorin                   | ll .                      |                                 | 20.0%      |                              |                        |                                    |                    |                     |                                      |                        |                            |                    | ·                         |
| 1.0% Project Operations                           | \$15                      | \$3                             | 20.0%      | \$18                         |                        | \$15                               | \$3                | \$18                | 2021Q3                               | 1.9%                   | \$15                       | \$3                | \$18                      |
| 31 CONSTRUCTION MANAGEMENT                        |                           |                                 |            |                              |                        |                                    |                    |                     |                                      |                        |                            |                    |                           |
| 10.0% Construction Management                     | \$149                     | \$33                            | 22.0%      | \$182                        |                        | \$149                              | \$33               | \$182               | 2023Q4                               | 10.9%                  | \$165                      | \$36               | \$202                     |
| 7.6% Project Operation:                           | \$149                     | ъзз<br>\$25                     | 22.0%      | \$102<br>\$137               |                        | \$149<br>\$112                     | \$35<br>\$25       | \$102<br>\$137      | 2023Q4<br>2023Q4                     | 10.9%                  | \$103<br>\$124             | \$30<br>\$27       | \$202<br>\$152            |
| 2.5% Project Management                           | \$37                      | \$25<br>\$8                     | 22.0%      | \$137<br>\$45                |                        | \$37                               | \$25<br>\$8        | \$137<br>\$45       | 2023Q4<br>2023Q4                     | 10.9%                  | \$12 <del>4</del><br>\$41  | \$27<br>\$9        | \$152<br>\$50             |
| -   |                           |                                 |            |                              | _                      |                                    |                    |                     |                                      |                        |                            |                    |                           |
| CONTRACT COST TOTALS                              | \$2,623                   | \$858                           |            | \$3,481                      |                        | \$2,623                            | \$858              | \$3,481             | I                                    |                        | \$2,822                    | \$926              | \$3,748                   |

# SECTION 6 TSP DETAIL ESTIMATE

Print Date Thu 22 July 2021 Eff. Date 10/1/2019

U.S. Army Corps of Engineers Project CPSS: James River Newport News Shoreline Protection - Alternatives Standard USACE Report Sections Time 12:06:29

Title Page

James River Newport News Shoreline Protection - Alternatives
600 LF of Shoreline Protection
All work, exclusive of plat 272000261 (Pier).
There is no environmental remediation in this project.
Real Estate: Demolition Costs are included in Alternative 0 - No Action;
Right of way costs are included in Alternative 1

Estimated by Designed by Prepared by Keith R. Butler Norfolk District Keith R. Butler

Preparation Date 10/28/2020 Effective Date of Pricing 10/1/2019 Estimated Construction Time 90 Days

This report is not copyrighted, but the information contained herein is For Official Use Only.

Print Date Thu 22 July 2021 Eff. Date 10/1/2019

#### U.S. Army Corps of Engineers Project CPSS: James River Newport News Shoreline Protection - Alternatives Standard USACE Report Sections

Time 12:06:29

Library Properties Page i

Designed by Norfolk District Estimated by Keith R. Butler

Prepared by Keith R. Butler

**Direct Costs** 

LaborCost

**EQCost** 

MatlCost

SubBidCost

Design Document
Document Date 2/18/2020

District Norfolk District

Contact Keith R. Butler - 757-201-7133

Budget Year 2020 UOM System Original

Timeline/Currency

Preparation Date 10/28/2020 Escalation Date 1/1/2016 Eff. Pricing Date 10/1/2019 Estimated Duration 90 Day(s)

Currency US dollars Exchange Rate 1.000000

Costbook CB16EN: 2016 MII English Cost Book

Labor: General Decision Number: VA20200053 05/22/2020

x=wd is the website for current Davis Bacon & Service Labor Rates. Fringes paid to the laborers are taxable. In a non-union job the whole fringes are taxable. In a union job, the v Labor Rates

LaborCost1

. . . .

LaborCost2 LaborCost3

LaborCost4

#### Equipment EP18R02: MII Equipment 2018 Region 2

| Region 02 - MI              | IDEAST, (2018) | F               | Shipping Rates |              |       |  |  |
|-----------------------------|----------------|-----------------|----------------|--------------|-------|--|--|
| Sales Tax                   | 6.00           | Electricity     | 0.101          | Over 0 CWT   | 10.53 |  |  |
| Working Hours per Year      | 1,410          | Gas             | 2.240          | Over 240 CWT | 7.72  |  |  |
| Labor Adjustment Factor     | 1.02           | Diesel Off-Road | 2.500          | Over 300 CWT | 6.40  |  |  |
| Cost of Money               | 1.13           | Diesel On-Road  | 2.700          | Over 400 CWT | 5.57  |  |  |
| Cost of Money Discount      | 25.00          |                 |                | Over 500 CWT | 5.89  |  |  |
| Tire Recap Cost Factor      | 1.50           |                 |                | Over 700 CWT | 5.89  |  |  |
| Tire Recap Wear Factor      | 1.80           |                 |                | Over 800 CWT | 8.66  |  |  |
| Tire Repair Factor          | 0.15           |                 |                |              |       |  |  |
| Equipment Cost Factor       | 1.00           |                 |                |              |       |  |  |
| Standby Depreciation Factor | 0.50           |                 |                |              |       |  |  |

Print Date Thu 22 July 2021 Eff. Date 10/1/2019

U.S. Army Corps of Engineers Project CPSS: James River Newport News Shoreline Protection - Alternatives Standard USACE Report Sections Time 12:06:29

Project Notes Page ii

Date Author Note

Labor ID: EQ ID: EP18R02 Currency in US dollars TRACES MII Version 4.4

Project Cost Summary Report Page 1

| Description                            | Quantity | <u>UOM</u> | ContractCost                     | <b>Escalation</b> | Contingency | <u>SIOH</u> | ProjectCost                      |
|--|----------|------------|----------------------------------|-------------------|-------------|-------------|----------------------------------|
| Project Cost Summary Report            |          |            | 2,469,386                        | 154,350           | 0           | 0           | 2,623,736                        |
| Feature Code 16 - Bank Stabilization   | 1 00     | EA         | 2,469,385.80<br><b>2,469,386</b> | 154,350           | 0           | 0           | 2,623,735.71<br><b>2,623,736</b> |
| reature Code 10 - Bank Stabinization   | 1.00     | LA         | 2,469,385.80                     | 134,330           | U           | U           | 2,623,735.71                     |
| Alternative 1 - Rock Sill w/ Veg Slope | 1.00     | EA         | 2,469,386                        | 154,350           | 0           | 0           | 2,623,736                        |
| Construction                           | 1.00     | EA         | 1,334,052.80<br><b>1,334,053</b> | 154,350           | 0           | 0           | 1,488,402.71<br><b>1,488,403</b> |
| Real Estate                            | 1.00     | EA         | 539,333.00<br><b>539,333</b>     | 0                 | 0           | 0           | 539,333.00<br><b>539,333</b>     |
| Planning, Engineering and Design       | 1.00     | LS         | 298,000                          | 0                 | 0           | 0           | 298,000                          |
| Construction Management                | 1.00     | EA         | 298,000.00<br><b>298,000</b>     | 0                 | 0           | 0           | 298,000.00<br><b>298,000</b>     |

### SECTION 7 COST RISK ANALYSIS

## **Abbreviated Risk Analysis**

Project (less than \$40M): **JRNN Emergency Shoreline Protection**Project Development Stage/Alternative: **Feasibility (Recommended Plan)** 

Risk Category: Low Risk: Typical Construction, Simple

Alternative: Alt 1

**Meeting Date:** 6/16/2020

Updated 7/16/2021

Total Estimated Construction Contract Cost = \$ 1,488,403

|    | <u>CWWBS</u>                                    | Feature of Work                          | <u>Estir</u> | nated Cost | % Contingency | <u>\$ C</u> | Contingency | <u>Total</u> |
|----|---|--|--------------|------------|---------------|-------------|-------------|--------------|
|    | 01 LANDS AND DAMAGES                            | Real Estate                              | \$           | 539,333    | 20%           | \$          | 107,867 \$  | 647,200      |
| 1  | 16 BANK STABILIZATION                           | Mob/Demob                                | \$           | 6,533      | 25%           | \$          | 1,627 \$    | 8,160        |
| 2  | 16 BANK STABILIZATION                           | Site Prep/Earthwork                      | \$           | 1,023,266  | 48%           | \$          | 493,822 \$  | 1,517,088    |
| 3  | 16 BANK STABILIZATION                           | Riprap Slope Treatment                   | \$           | 455,630    | 28%           | \$          | 127,525 \$  | 583,155      |
| 4  |   |  | \$           | -          | 0%            | \$          | - \$        | -            |
| 5  |   |  | \$           | _          | 0%            | \$          | - \$        | -            |
| 6  |   |  | \$           | _          | 0%            | \$          | - \$        | -            |
| 7  |   |  | \$           | _          | 0%            | \$          | - \$        | _            |
| 8  |   |  | \$           |            | 0%            | \$          | - \$        | <u>-</u>     |
| 9  |   |  | \$           |            | 0%            | \$          | - \$        | <u>-</u>     |
| 10 |   |  | \$           |            | 0%            | \$          | - \$        | <u>-</u>     |
| 11 |   |  | \$           | _          | 0%            | \$          | - \$        | _            |
| 12 | All Other                                       | Remaining Construction Items             | \$           | 2,972      | 0.2% 32%      | \$          | 960 \$      | 3,932        |
| 13 | 30 PLANNING, ENGINEERING, AND DESIGN            | Planning, Engineering, & Design          | \$           | 298,000    | 20%           | \$          | 61,040 \$   | 359,040      |
| 14 | 31 CONSTRUCTION MANAGEMENT                      | Construction Management                  | \$           | 298,000    | 22%           | \$          | 66,465 \$   | 364,465      |
| XX | FIXED DOLLAR RISK ADD (EQUALLY DISPERSED TO ALL | ., MUST INCLUDE JUSTIFICATION SEE BELOW) |              |            |               | \$          | -           |              |

| \$2,836k   |
|------------|
| 80%        |
| 2,835,840  |
| 364,465    |
| 359,040    |
| 2,112,334  |
| 647,199.60 |
|            |

\* 50% based on base is at 5% CL.

**Fixed Dollar Risk Add:** (Allows for additional risk to be added to the risk analsyis. Must include justification. Does not allocate to Real Estate.

## JRNN Emergency Shoreline Protection Alt 1

Feasibility (Recommended Plan)
Abbreviated Risk Analysis

Meeting Date: 16-Jun-20

| _           |            |          | Risk Level |             |          |
|-------------|------------|----------|------------|-------------|----------|
| Very Likely | 2          | 3        | 4          | 5           | 5        |
| Likely      | 1          | 2        | 3          | 4           | 5        |
| Possible    | 0          | 1        | 2          | 3           | 4        |
| Unlikely    | 0          | 0        | 1          | 2           | 3        |
|             | Negligible | Marginal | Moderate   | Significant | Critical |

# Risk Register

| Risk Element       | Feature of Work                 | Concerns  | PDT Discussions & Conclusions (Include logic & justification for choice of Likelihood & Impact)  | Impact        | Likelihood | Risk Level |
|--------------------|---------------------------------|---|--|---------------|------------|------------|
| Project Ma         | nagement & Scope Growth         |   |  | Maximum Proje | ct Growth  | 40%        |
| PS-1               | Mob/Demob                       | <ul> <li>Potential for scope growth, added features?</li> <li>Project accomplishes intent?</li> <li>Funding Difficulties?</li> <li>Sufficent Staffing/Support?</li> </ul>   | The contractor may have a different means and method to do the perform the project. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome.                                     | Marginal      | Possible   | 1          |
| PS-2               | Site Prep/Earthwork             | Potential for scope growth, added features? Project accomplishes intent? Funding Difficulties? Sufficent Staffing/Support?  | The contractor may have a different means and method to do the perform the project. Possible dirrering site conditions. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome. | Marginal      | Possible   | 1          |
| PS-3               | Riprap Slope Treatment          | Potential for scope growth, added features? Project accomplishes intent? Funding Difficulties? Sufficent Staffing/Support?  | The contractor may have a different means and method to do the perform the project. Possible dirrering site conditions. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome. | Negligible    | Unlikely   | 0          |
| PS-12              | Remaining Construction Items    | <ul> <li>Potential for scope growth, added features?</li> <li>Project accomplishes intent?</li> <li>Funding Difficulties?</li> <li>Sufficent Staffing/Support?</li> </ul>   | The contractor may have a different means and method to do the perform the project. Possible dirrering site conditions. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome. | Marginal      | Possible   | 1          |
| PS-13              | Planning, Engineering, & Design | Potential for scope growth, added features? Project accomplishes intent? Funding Difficulties? Sufficent Staffing/Support?  | The contractor may have a different means and method to do the perform the project. Possible dirrering site conditions. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome. | Marginal      | Possible   | 1          |
| PS-14              | Construction Management         | Potential for scope growth, added features? Project accomplishes intent? Funding Difficulties? Sufficent Staffing/Support?  | The contractor may have a different means and method to do the perform the project. Possible dirrering site conditions. Project could be delayed due to unforseeable circumstances and weather. Funding availability will determine the outcome. | Marginal      | Possible   | 1          |
| <u>Acquisition</u> | n Strategy                      |   |  | Maximum Proje | ct Growth  | 30%        |
| AS-1               | Mob/Demob                       | Contracting plan firmly established? 8a or small business likely? Requirement for subcontracting? Accelerated schedule or harsh weather schedule? High-risk acquisition limits competition, design/build? Limited bid competition anticipated? Bid schedule developed to reduce quantity risks? | Small business 8a contract likely due to project magnitude.  | Marginal      | Likely     | 2          |

| AS-2       | Site Prep/Earthwork             | <ul> <li>Contracting plan firmly established?</li> <li>8a or small business likely?</li> <li>Requirement for subcontracting?</li> <li>Accelerated schedule or harsh weather schedule?</li> <li>High-risk acquisition limits competition, design/build?</li> <li>Limited bid competition anticipated?</li> <li>Bid schedule developed to reduce quantity risks?</li> </ul>      | Small business 8a contract likely due to project magnitude. Contractor must specialize in this field of work - slope stabilization.  | Marginal       | Likely    | 2   |
|------------|---------------------------------|--|--|----------------|-----------|-----|
| AS-3       | Riprap Slope Treatment          | <ul> <li>Contracting plan firmly established?</li> <li>8a or small business likely?</li> <li>Requirement for subcontracting?</li> <li>Accelerated schedule or harsh weather schedule?</li> <li>High-risk acquisition limits competition, design/build?</li> <li>Limited bid competition anticipated?</li> <li>Bid schedule developed to reduce quantity risks?</li> </ul>      | Small business 8a contract likely due to project magnitude. Contractor must specialize in this field of work - slope stabilization.  | Marginal       | Likely    | 2   |
| AS-12      | Remaining Construction Items    | Contracting plan firmly established?  8a or small business likely?  Requirement for subcontracting?  Accelerated schedule or harsh weather schedule?  High-risk acquisition limits competition, design/build?  Limited bid competition anticipated?  Bid schedule developed to reduce quantity risks?  |  | Negligible     | Unlikely  | 0   |
| AS-13      | Planning, Engineering, & Design | <ul> <li>Contracting plan firmly established?</li> <li>8a or small business likely?</li> <li>Requirement for subcontracting?</li> <li>Accelerated schedule or harsh weather schedule?</li> <li>High-risk acquisition limits competition, design/build?</li> <li>Limited bid competition anticipated?</li> <li>Bid schedule developed to reduce quantity risks?</li> </ul>      |  | Negligible     | Unlikely  | 0   |
| AS-14      | Construction Management         | <ul> <li>Contracting plan firmly established?</li> <li>8a or small business likely?</li> <li>Requirement for subcontracting?</li> <li>Accelerated schedule or harsh weather schedule?</li> <li>High-risk acquisition limits competition, design/build?</li> <li>Limited bid competition anticipated?</li> <li>Bid schedule developed to reduce quantity risks?</li> </ul>      |  | Negligible     | Unlikely  | 0   |
| Constructi | on Elements                     |  |  | Maximum Projec | ct Growth | 15% |
| CON-1      | Mob/Demob                       | Accelerated schedule or harsh weather schedule? High risk or complex construction elements, site access, in-water? Water care and diversion plan? Unique construction methods? Special mobilization? Special equipment or subcontractors needed? Potential for construction modification and claims?   | project is onsteep slope and difficult to access. It is a complex process for construction.  | Marginal       | Possible  | 1   |
| CE-2       | Site Prep/Earthwork             | <ul> <li>Accelerated schedule or harsh weather schedule?</li> <li>High risk or complex construction elements, site access, in-water?</li> <li>Water care and diversion plan?</li> <li>Unique construction methods?</li> <li>Special mobilization?</li> <li>Special equipment or subcontractors needed?</li> <li>Potential for construction modification and claims?</li> </ul> | The contractor may have a different means and method to do the perform the project. Could require special equipment to perform certain aspects of preparation. Possible differing site conditions. Limited access due to road access and laydown area. | Moderate       | Likely    | 3   |

| CE-3        | Riprap Slope Treatment                 | <ul> <li>Accelerated schedule or harsh weather schedule?</li> <li>High risk or complex construction elements, site access, in-water?</li> <li>Water care and diversion plan?</li> <li>Unique construction methods?</li> <li>Special mobilization?</li> <li>Special equipment or subcontractors needed?</li> <li>Potential for construction modification and claims?</li> </ul> | The contractor may have a different means and method to do the perform the project. Could require special equipment to perform certain aspects of preparation. Possible differing site conditions. Limited access due to road access and laydown area. | Moderate                  | Likely              | 3   |
|-------------|--|--|--|---------------------------|---------------------|-----|
| CE-12       | Remaining Construction Items           | <ul> <li>Accelerated schedule or harsh weather schedule?</li> <li>High risk or complex construction elements, site access, in-water?</li> <li>Water care and diversion plan?</li> <li>Unique construction methods?</li> <li>Special mobilization?</li> <li>Special equipment or subcontractors needed?</li> <li>Potential for construction modification and claims?</li> </ul> | The contractor may have a different means and method to do the perform the project. Could require special equipment to perform certain aspects of preparation. Possible differing site conditions. Limited access due to road access and laydown area. | Significant               | Very LIKELY         | 5   |
| CE-13       | Planning, Engineering, & Design        | <ul> <li>Accelerated schedule or harsh weather schedule?</li> <li>High risk or complex construction elements, site access, in-water?</li> <li>Water care and diversion plan?</li> <li>Unique construction methods?</li> <li>Special mobilization?</li> <li>Special equipment or subcontractors needed?</li> <li>Potential for construction modification and claims?</li> </ul> | The contractor may have a different means and method to do the perform the project. Could require special equipment to perform certain aspects of preparation. Possible differing site conditions. Limited access due to road access and laydown area. | Moderate                  | Likely              | 3   |
| CE-14       | Construction Management                | <ul> <li>Accelerated schedule or harsh weather schedule?</li> <li>High risk or complex construction elements, site access, in-water?</li> <li>Water care and diversion plan?</li> <li>Unique construction methods?</li> </ul>  | The contractor may have a different means and method to do the perform the project. Could require special equipment to perform certain aspects of preparation. Possible differing site   | Moderate                  | Likely              | 3   |
|             |  | <ul><li>Special mobilization?</li><li>Special equipment or subcontractors needed?</li><li>Potential for construction modification and claims?</li></ul>  | conditions. Limited access due to road access and laydown area.  |                           |                     |     |
| Specialty ( | Construction or Fabrication            | Special equipment or subcontractors needed?  | · ·  | Maximum Proje             | ct Growth           | 50% |
| Specialty ( | Construction or Fabrication  Mob/Demob | Special equipment or subcontractors needed?  | · ·  | Maximum Proje  Negligible | ct Growth  Unlikely | 50% |
|             |  | Special equipment or subcontractors needed?     Potential for construction modification and claims?      Atypical construction elements, unusual material or equipment manufactured or installed?     Confidence in constructibility or methodology?     One of a kind and confidence in fabrication and installation?     Ability to reasonably transport?                    | · ·  |                           |                     |     |

| SC-12            | Remaining Construction Items    | <ul> <li>Atypical construction elements, unusual material or equipment manufactured or installed?</li> <li>Confidence in constructibility or methodology?</li> <li>One of a kind and confidence in fabrication and installation?</li> <li>Ability to reasonably transport?</li> <li>Risk of specialty equipment functioning first time? Testing?</li> </ul>  |  | Negligible    | Unlikely  | 0    |
|------------------|---------------------------------|--|--|---------------|-----------|------|
| SC-13            | Planning, Engineering, & Design | <ul> <li>Atypical construction elements, unusual material or equipment manufactured or installed?</li> <li>Confidence in constructibility or methodology?</li> <li>One of a kind and confidence in fabrication and installation?</li> <li>Ability to reasonably transport?</li> <li>Risk of specialty equipment functioning first time? Testing?</li> </ul>  |  | Negligible    | Unlikely  | 0    |
| SC-14            | Construction Management         | <ul> <li>Atypical construction elements, unusual material or equipment manufactured or installed?</li> <li>Confidence in constructibility or methodology?</li> <li>One of a kind and confidence in fabrication and installation?</li> <li>Ability to reasonably transport?</li> <li>Risk of specialty equipment functioning first time? Testing?</li> </ul>  |  | Negligible    | Unlikely  | 0    |
| m 1 · 1          | Daalam () O                     |  |  | 14            |           | 000/ |
| <u>Technical</u> | Design & Quantities             |  |  | Maximum Proje | ct Growth | 20%  |
| T-1              | Mob/Demob                       | <ul> <li>Level of confidence based on design and assumptions?</li> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> <li>Quality control check applied?</li> </ul>  |  | Negligible    | Unlikely  | 0    |
|                  |                                 | <ul> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> </ul>  | The estimated quanity of debris on the existing slope may be low. Change order might be needed. Possible differing site conditions may presesnt additional disposla and contaminated soil. |               |           |      |
| T-1              | Mob/Demob                       | <ul> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> <li>Quality control check applied?</li> <li>Level of confidence based on design and assumptions?</li> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> </ul> | The estimated quanity of debris on the existing slope may be low. Change order might be needed. Possible differing site conditions may presesnt additional disposla and contaminated       | Negligible    | Unlikely  | 0    |

|             |                                 |  | Γ   | 1              | 1         |     |
|-------------|---------------------------------|--|---|----------------|-----------|-----|
| T-13        | Planning, Engineering, & Design | <ul> <li>Level of confidence based on design and assumptions?</li> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> <li>Quality control check applied?</li> </ul>  |   | Negligible     | Unlikely  | 0   |
| T-14        | Construction Management         | <ul> <li>Level of confidence based on design and assumptions?</li> <li>Possibility for increased quantities due to loss, waste, or subsidence?</li> <li>Appropriate methods applied to calculate quantities?</li> <li>Sufficient investigations to develop quantities?</li> <li>Quality control check applied?</li> </ul>  | unexpeted delays or site changes  | Marginal       | Possible  | 1   |
| Cost Estima | ate Assumptions                 |  |   | Maximum Projec | ct Growth | 25% |
| EST-1       | Mob/Demob                       | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> | do not know what equipment contractor will bring or have far to deliver equipment from. | Marginal       | Possible  | 1   |
| EST-2       | Site Prep/Earthwork             | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> | Removal will be determined by contractor (means/methods)                                | Marginal       | Possible  | 1   |
| EST-3       | Riprap Slope Treatment          | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> | material cost could go up. Public safety issues for access and so forth                 | Marginal       | Possible  | 1   |
| EST-12      | Remaining Construction Items    | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> | construction means and methods  | Marginal       | Possible  | 1   |
| EST-13      | Planning, Engineering, & Design | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> |   | Negligible     | Unlikely  | 0   |

| EST-14     | Construction Management         | <ul> <li>Reliability and number of key quotes?</li> <li>Assumptions related to prime and subcontractor markups/assignments?</li> <li>Assumptions regarding crew, productivity, overtime?</li> <li>Site accessibility, transport delays, congestion?</li> <li>Overuse of Cost Book, lump sum, allowances?</li> <li>Lack confidence on critical cost items?</li> </ul> |   | Negligible     | Unlikely  | 0   |
|------------|---------------------------------|--|---|----------------|-----------|-----|
| External P | roject Risks                    |  |   | Maximum Projec | ct Growth | 20% |
| EX-1       | Mob/Demob                       | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | Weather could be a factor during the duration of the project.  There could be real estate. Fuel prices could rise and other costs due to the Covid-19 issues. | Moderate       | Possible  | 2   |
| EX-2       | Site Prep/Earthwork             | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | Weather could be a factor during the duration of the project.  There could be real estate. Fuel prices could rise and other costs due to the Covid-19 issues. | Moderate       | Possible  | 2   |
| EX-3       | Riprap Slope Treatment          | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | Weather could be a factor during the duration of the project.  There could be real estate. Fuel prices could rise and other costs due to the Covid-19 issues. | Moderate       | Possible  | 2   |
| EX-12      | Remaining Construction Items    | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | Weather could be a factor during the duration of the project.  There could be real estate. Fuel prices could rise and other costs due to the Covid-19 issues. | Moderate       | Possible  | 2   |
| EX-13      | Planning, Engineering, & Design | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | Weather could be a factor during the duration of the project. There could be real estate. Fuel prices could rise and other costs due to the Covid-19 issues.  | Moderate       | Possible  | 2   |
| EX-14      | Construction Management         | <ul> <li>Potential for severe adverse weather?</li> <li>Political influences, lack of support, obstacles?</li> <li>Unanticipated inflations in fuel, key materials?</li> <li>Potential for market volatility impacting competition, pricing?</li> <li>Funding Constraints</li> </ul>   | NFS and homeowners support for project and willing to participate.  | Moderate       | Possible  | 2   |

### SECTION 8 LABOR RATES

"General Decision Number: VA20200053 05/22/2020

Superseded General Decision Number: VA20190053

State: Virginia

Construction Types: Heavy (Heavy and Sewer and Water Line)

County: Newport News\* County in Virginia.

\*INDEPENDENT CITY

HEAVY CONSTRUCTION PROJECTS (Including Sewer and Water Lines)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Num | ber Publication | Date |
|------------------|-----------------|------|
| 0                | 01/03/2020      |      |
| 1                | 01/10/2020      |      |
| 2                | 04/10/2020      |      |

| 3 | 05/22/2020 |
|---|------------|
| • | ,,         |

| ELEC1340-007 01/01/2020 |
|-------------------------|
|-------------------------|

|  | Rates  | Fringes                      |
|--|--|------------------------------|
| ELECTRICIAN  | \$ 28.75                                     | 2%+13.61                     |
| * IRON0079-007 05/01/2020  |  |                              |
|  | Rates  | Fringes                      |
| IRONWORKER, STRUCTURAL   | \$ 26.18                                     | 16.37                        |
| PLUM0110-002 11/01/2019  |  |                              |
|  | Rates  | Fringes                      |
| PLUMBER/PIPEFITTER   | \$ 29.22                                     | 16.98                        |
| SUVA2010-054 09/03/2010  |  |                              |
|  | Rates  | Fringes                      |
| CARPENTER  | \$ 21.57                                     | 3.74                         |
| CEMENT MASON/CONCRETE FINISHER.  | \$ 19.00                                     | 3.83                         |
| FORM WORKER  | \$ 17.00                                     |                              |
| IRONWORKER, REINFORCING  | \$ 22.45                                     | 11.85                        |
| LABORERS  Common or General  Flagger  Landscape  Pipelayer   | \$ 7.39<br>\$ 10.00                          | 1.53<br>0.20<br>1.32         |
| POWER EQUIPMENT OPERATOR:  Backhoe  Bobcat/Skid Loader  Bulldozer  Crane (Tower)  Crane  Excavator | 11.40<br>1\$ 42.50<br>1\$ 23.29<br>1\$ 23.38 | 2.57<br>1.47<br>6.02<br>7.28 |

| Loader\$  Mechanic\$  Trackhoe\$  Tugboat\$ | 26.78<br>12.75 | 1.75<br>6.32<br>1.24 |
|---|----------------|----------------------|
| TRUCK DRIVER, Includes All Dump Trucks\$    | 14.33          | 3.58                 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

\_\_\_\_\_\_

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

\_\_\_\_\_

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical

order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate tha no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

-----

#### WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

> Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

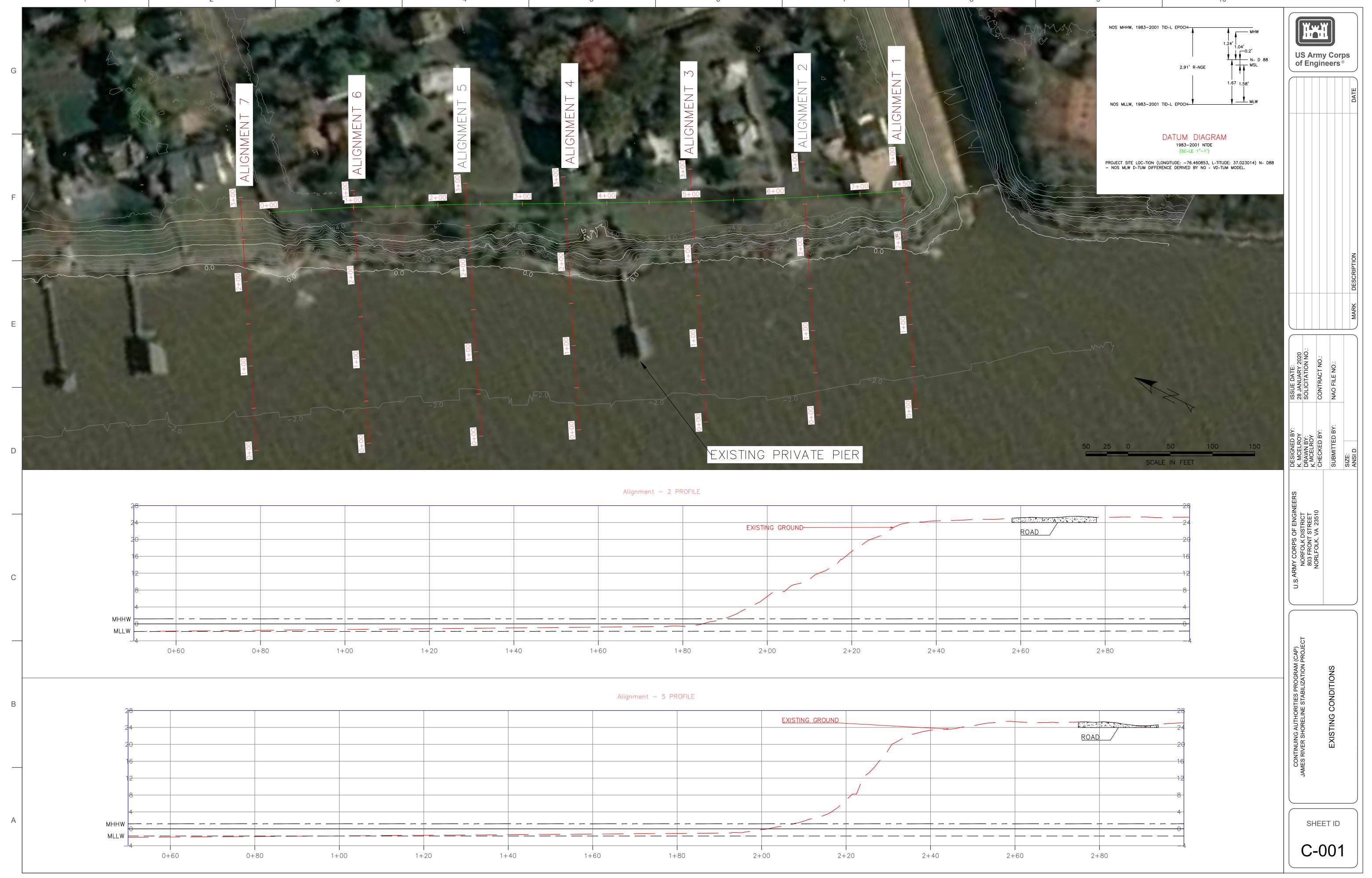
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

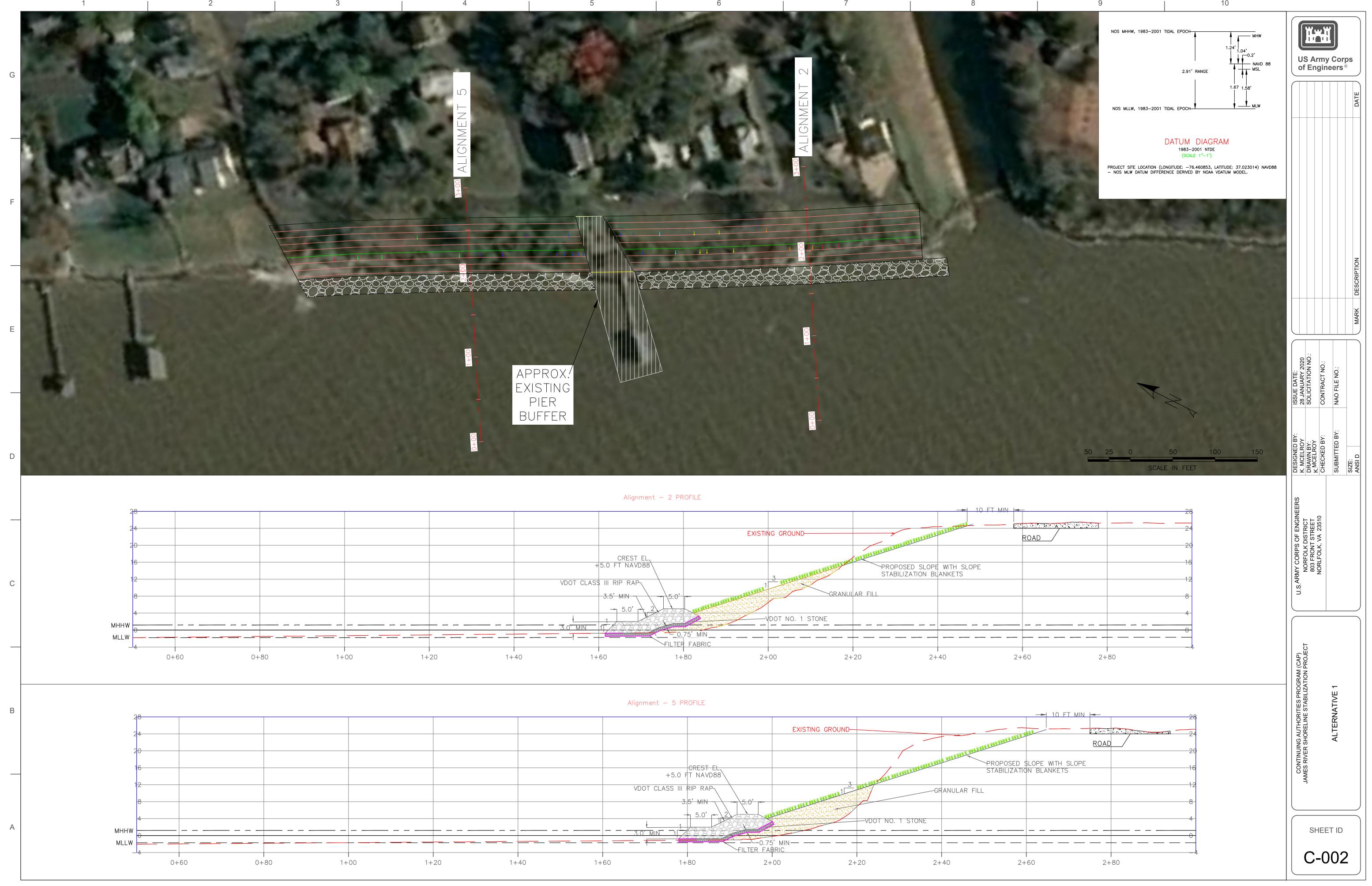
> Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

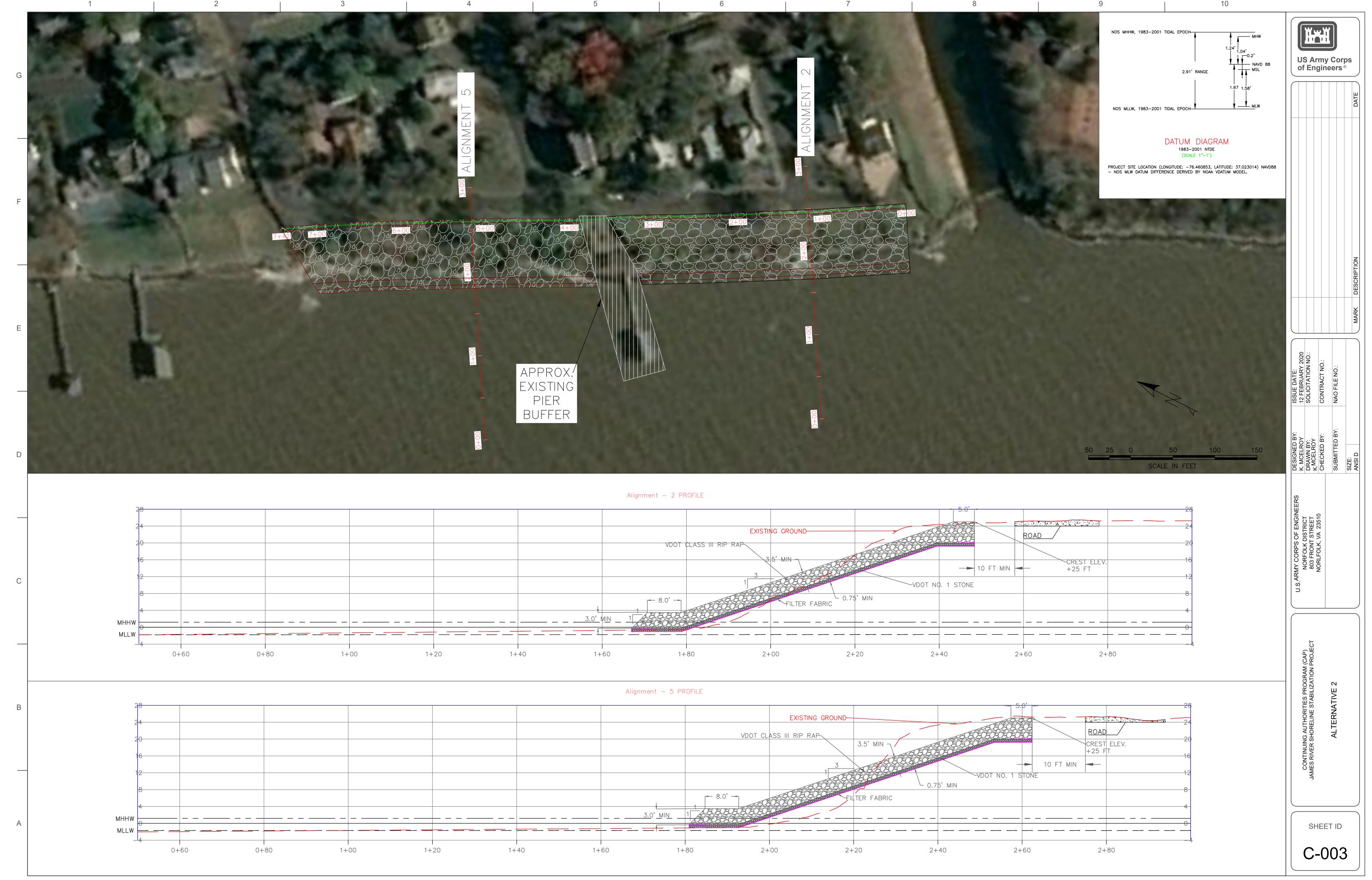
4.) All decisions by the Administrative Review Board are final.

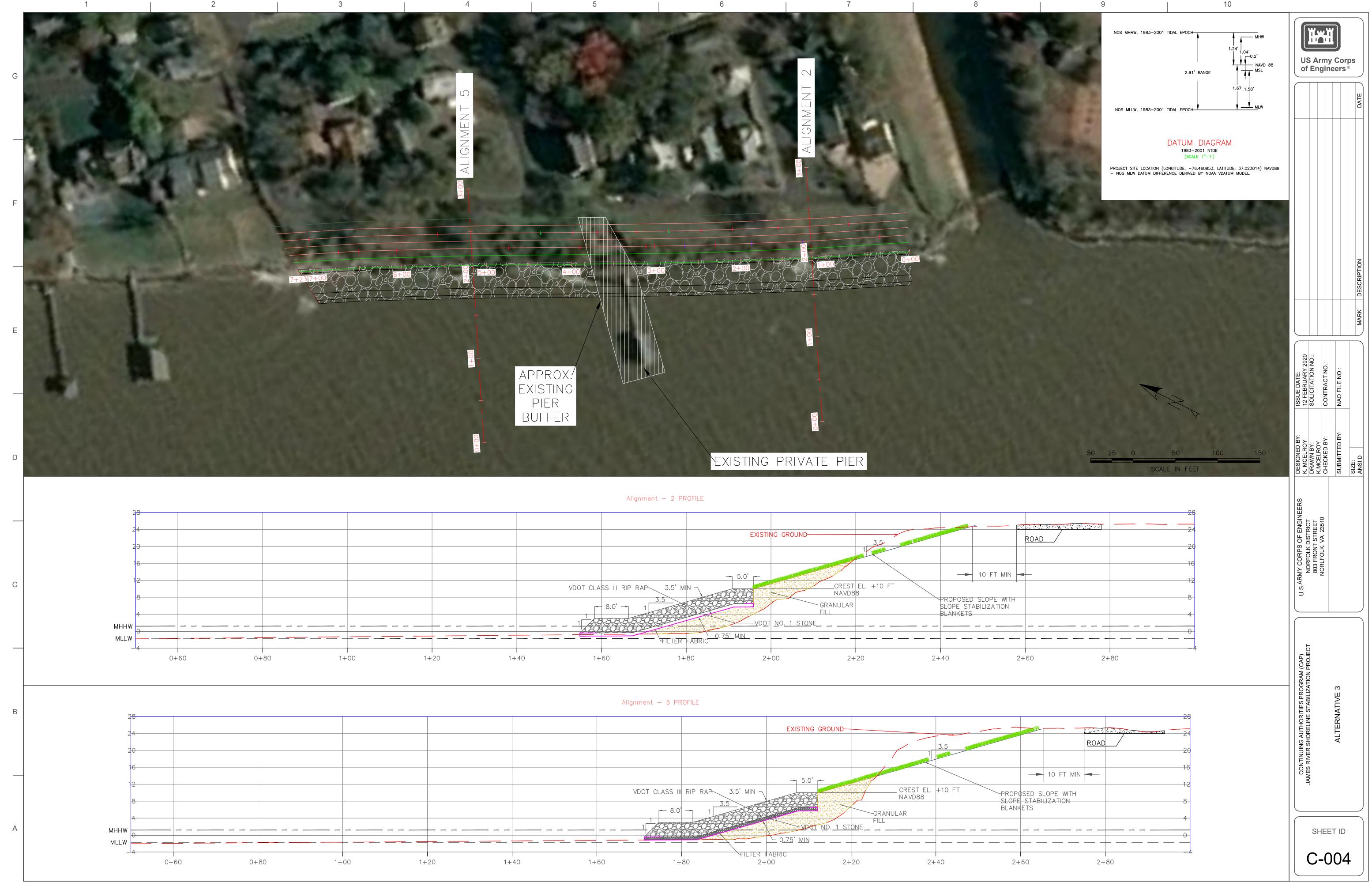
END OF GENERAL DECISION"

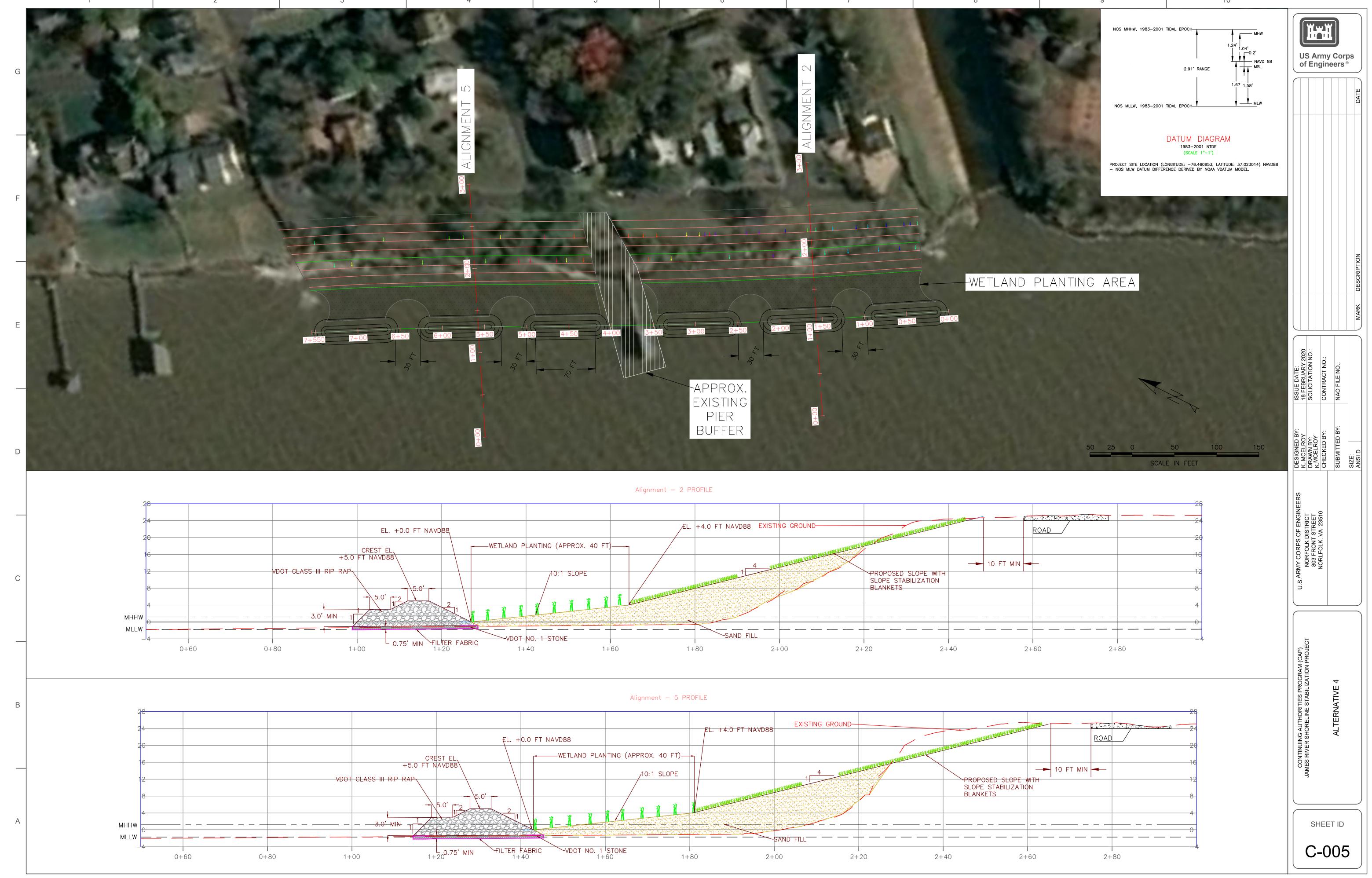
# ATTACHMENT 3: FOCUSED ALTERNATIVES 10% DRAWINGS



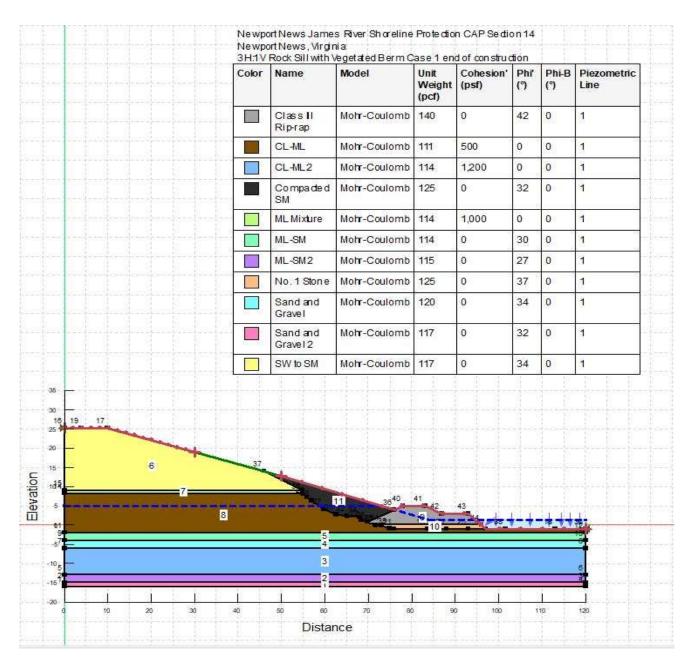






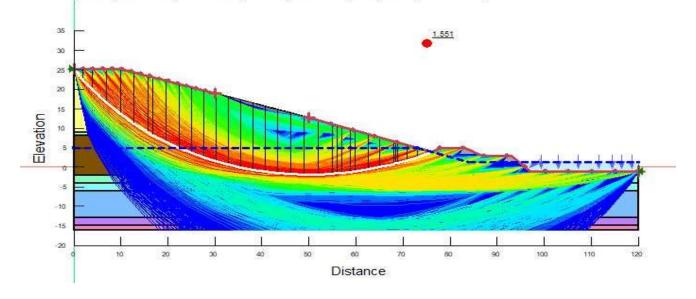


| ATTACHMENT 4: GeoStudio Slope Stability Analysis |
|--|
|  |
|  |
|  |



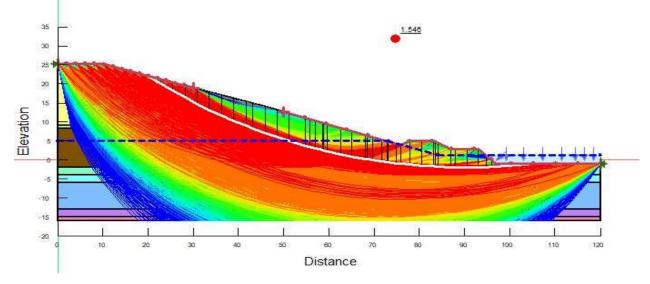
Newport News, James River Shoreline Protection CAP Section 14
Newport News, Virginia
3H:1V Rock Sil with Vegetated Berm Case 1 end of construction

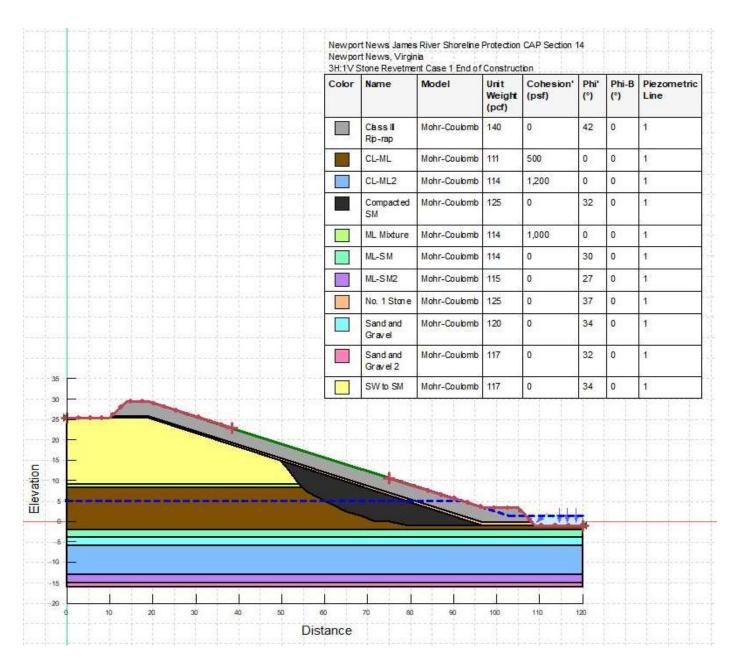
| Color   | Name                 | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | (°) | Phi-B<br>(°) | Piezometrio<br>Line |
|---------|----------------------|--------------|-------------------------|--------------------|-----|--------------|---------------------|
|         | Class II<br>Rip-rap  | Mohr-Coubmb  | 140                     | 0                  | 42  | 0            | 1                   |
|         | CL-ML                | Mohr-Coubmb  | 111                     | 500                | 0   | 0            | 1                   |
|         | CL-ML2               | Mohr-Coubmb  | 114                     | 1200               | 0   | 0            | 1                   |
| 12 - 57 | Compacted<br>SM      | Mohr-Coubmb  | 125                     | 0                  | 32  | 0            | 1                   |
|         | ML Mixture           | Mohr-Coubmb  | 114                     | 1,000              | 0   | 0            | 1                   |
|         | ML-SM                | Mohr-Coulomb | 114                     | 0                  | 30  | 0            | 1                   |
|         | ML-SM2               | Mohr-Coubmb  | 115                     | 0                  | 27  | 0            | 1                   |
|         | No. 1 Stone          | Mohr-Coubmb  | 125                     | 0                  | 37  | 0            | 1                   |
|         | Sand and<br>Gravel   | Mohr-Coubmb  | 120                     | 0                  | 34  | 0            | 1                   |
|         | Sand and<br>Gravel 2 | Mohr-Coubmb  | 117                     | 0                  | 32  | 0            | 1                   |
|         | SW to SM             | Mohr-Coubmb  | 117                     | 0                  | 34  | 0            | 1                   |



Newport News James River Shoreline Protection CAP Section 14 Newport News, Virginia 3H:1V Rock Sill with Vegetated Berm Case 2 Long Tem

| Color | Name                 | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phi'<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|-------|----------------------|--------------|-------------------------|--------------------|-------------|--------------|---------------------|
|       | Class III<br>Rip-rap | Mohr-Coulomb | 140                     | 0                  | 42          | 0            | 1                   |
|       | CL-ML                | Mohr-Coulomb | 111                     | 15                 | 22          | 0            | 1                   |
|       | CL-ML2               | Mohr-Coulomb | 114                     | 20                 | 26          | 0            | 1                   |
|       | Compacted<br>SM      | Mohr-Coulomb | 125                     | 0                  | 32          | 0            | 1                   |
|       | ML Mixture           | Mohr-Coulomb | 114                     | 10                 | 25          | 0            | 1                   |
|       | ML-SM                | Mohr-Coulomb | 114                     | 0                  | 30          | 0            | 1                   |
|       | ML-SM2               | Mohr-Coulomb | 115                     | 0                  | 27          | 0            | 1                   |
|       | No. 1 Stone          | Mohr-Coulomb | 125                     | 0                  | 37          | 0            | 1                   |
|       | Sand and<br>Gravel   | Mohr-Coulomb | 120                     | 0                  | 34          | 0            | 1                   |
|       | Sand and<br>Gravel 2 | Mohr-Coulomb | 117                     | 0                  | 32          | 0            | 1                   |
|       | SW to SM             | Mohr-Coulomb | 117                     | 0                  | 34          | 0            | 1                   |





Newport News James River Shoreline Protection CAP Section 14
Newport News, Virginia
3H:1V Stone Revetment Case 1 End of Construction

Mohr-Coulomb 117

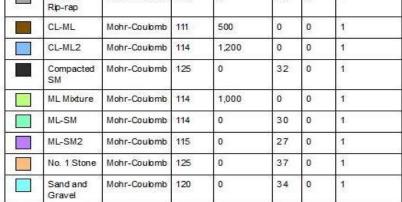
Mohr-Coulomb

Sand and

Gravel 2

SW to SM

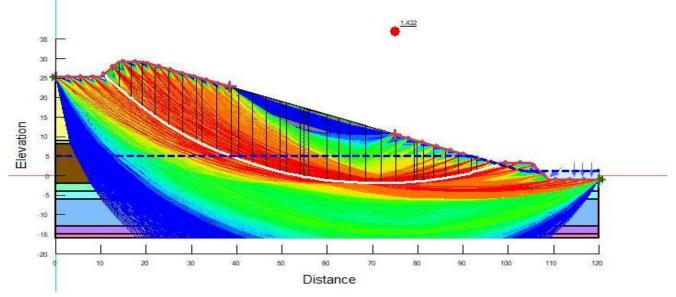
| Color | Name                | Model        | Unit<br>Weight<br>(pcf) |   | (°) | Phi-B<br>(°) | Piezometrio<br>Line |
|-------|---------------------|--------------|-------------------------|---|-----|--------------|---------------------|
|       | Class II<br>Rip-rap | Mohr-Coulomb | 140                     | 0 | 42  | 0            | 1                   |



0

0

117



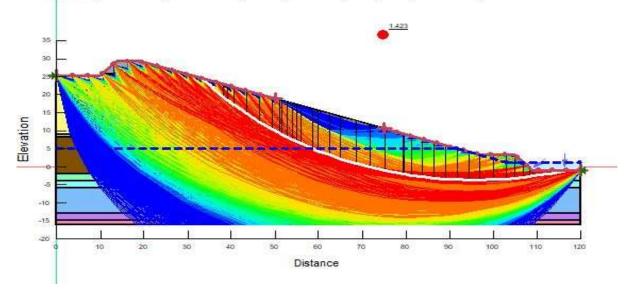
32

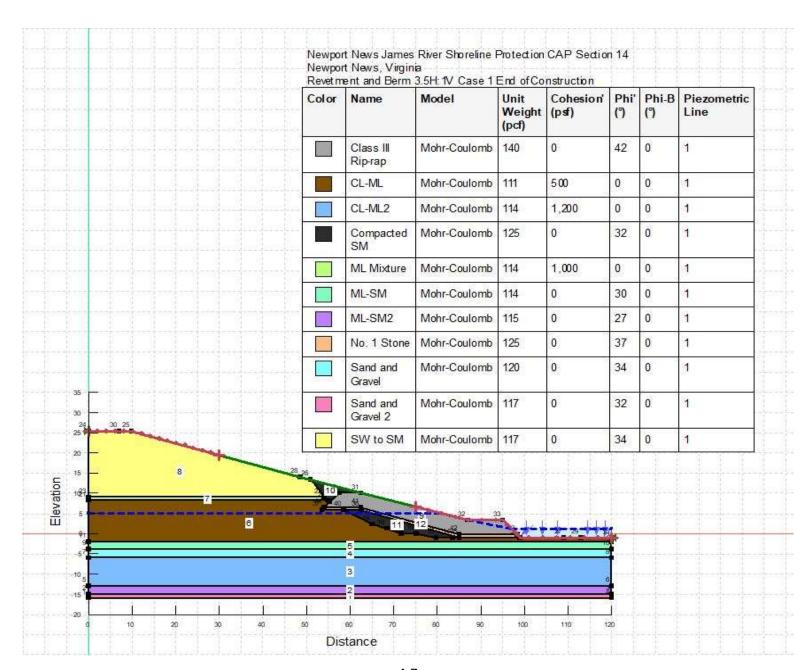
34

0

Newport News James River Shoreline Protection CAP Section 14 Newport News, Virginia 3H:1V Stone Revetment Case 2 Long Term

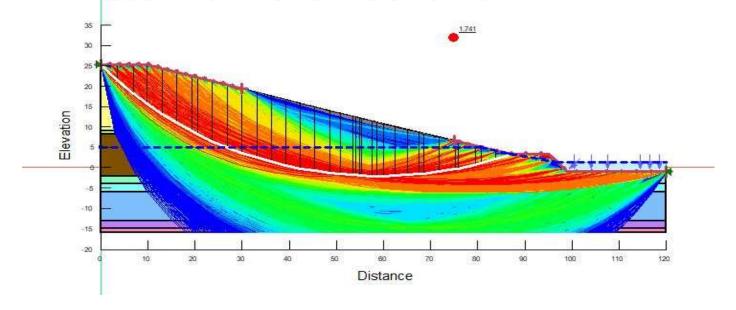
| Color | Name                 | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phi'<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|-------|----------------------|--------------|-------------------------|--------------------|-------------|--------------|---------------------|
|       | Class III<br>Rip-rap | Mohr-Coulomb | 140                     | 0                  | 42          | 0            | 1                   |
| 972-1 | CL-ML                | Mohr-Coulomb | 111                     | 15                 | 22          | 0            | 1                   |
|       | CL-ML2               | Mohr-Coulomb | 114                     | 20                 | 26          | 0            | 1                   |
| (E)   | Compacted<br>SM      | Mohr-Coulomb | 125                     | 0                  | 32          | 0            | 1                   |
|       | ML Mixture           | Mohr-Coulomb | 114                     | 10                 | 25          | 0            | 18                  |
|       | ML-SM                | Mohr-Coulomb | 114                     | 0                  | 30          | 0            | 1                   |
|       | ML-SM2               | Mohr-Coulomb | 115                     | 0                  | 27          | 0            | 1                   |
|       | No. 1 Stone          | Mohr-Coulomb | 125                     | 0                  | 37          | 0            | 1                   |
|       | Sand and<br>Gravel   | Mohr-Coulomb | 120                     | 0                  | 34          | 0            | 1                   |
|       | Sand and<br>Gravel 2 | Mohr-Coulomb | 117                     | 0                  | 32          | 0            | 1                   |
| 30    | SW to SM             | Mohr-Coulomb | 117                     | 0                  | 34          | 0            | 1                   |





Newport News James River Shoreline Protection CAP Section 14 Newport News, Virginia

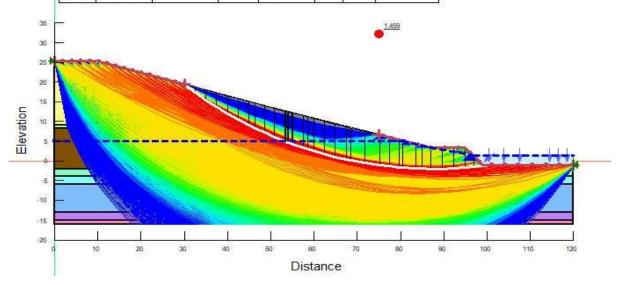
| Color | Name                 | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phř<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|-------|----------------------|--------------|-------------------------|--------------------|------------|--------------|---------------------|
|       | Class III<br>Rip-rap | Mohr-Goulomb | 140                     | 0                  | 42         | 0            | 1                   |
|       | CL-ML                | Mohr-Coulomb | 111                     | 500                | 0          | 0            | 1                   |
|       | CL-ML2               | Mohr-Coulomb | 114                     | 1,200              | 0          | 0            | 1                   |
|       | Compacted<br>SM      | Mohr-Coulomb | 125                     | 0                  | 32         | 0            | 1                   |
|       | ML Mixture           | Mohr-Coulomb | 114                     | 1,000              | 0          | 0            | 1                   |
|       | ML-SM                | Mohr-Coulomb | 114                     | 0                  | 30         | 0            | 1                   |
|       | ML-SM2               | Mohr-Coulomb | 115                     | 0                  | 27         | 0            | 1                   |
|       | No. 1 Stone          | Mohr-Coulomb | 125                     | 0                  | 37         | 0            | 1                   |
|       | Sand and<br>Gravel   | Mohr-Coulomb | 120                     | 0                  | 34         | 0            | 1                   |
|       | Sand and<br>Gravel 2 | Mohr-Coulomb | 117                     | 0                  | 32         | 0            | 1                   |
|       | SW to SM             | Mohr-Coulomb | 117                     | 0                  | 34         | 0            | 1                   |

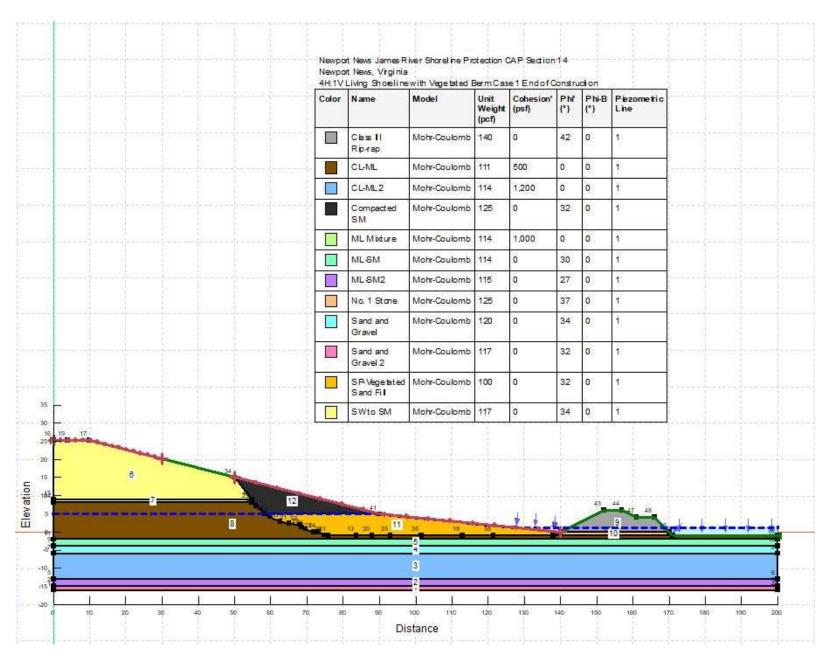


Newport News James River Shoreline Protection CAP Section 14 Newport News, Virginia

|  | Berm Case 2 Long Term |
|--|-----------------------|
|  |                       |

| Cobr | Name                 | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phi'<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|------|----------------------|--------------|-------------------------|--------------------|-------------|--------------|---------------------|
|      | Chasall<br>Rip-rap   | Mohr-Coulomb | 140                     | 0                  | 42          | 0            | 1                   |
|      | CL-ML                | Mohr-Coulomb | 111                     | 15                 | 22          | 0            | 1                   |
|      | CL-ML2               | Mohr-Coulomb | 114                     | 20                 | 26          | 0            | 1                   |
|      | Compacted<br>SM      | Mohr-Coulomb | 125                     | 0                  | 32          | 0            | 1                   |
|      | ML Mixture           | Mohr-Coulomb | 114                     | 10                 | 25          | 0            | 1                   |
|      | ML-SM                | Mohr-Coulomb | 114                     | 0                  | 30          | 0            | 1                   |
|      | ML-SM2               | Mohr-Coulomb | 115                     | 0                  | 27          | 0            | 1                   |
|      | No. 1 Stane          | Mohr-Coulomb | 125                     | 0                  | 37          | 0            | 1                   |
|      | Sand and<br>Gravel   | Mohr-Coulomb | 120                     | 0                  | 34          | 0            | 1                   |
|      | Sand and<br>Gravel 2 | Mohr-Coulomb | 117                     | 0                  | 32          | 0            | 1                   |
|      | SW to SM             | Mohr-Coulomb | 117                     | 0                  | 34          | 0            | 1                   |

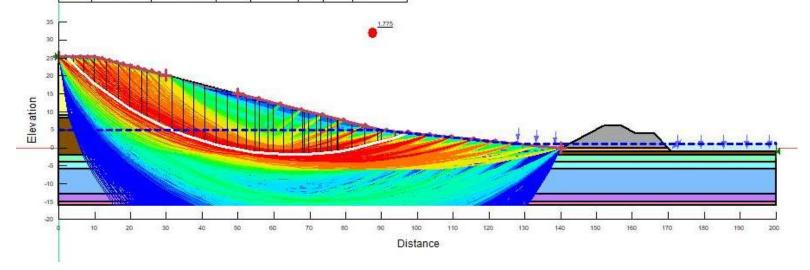




| Newport News James River Shoreline Protection CAP Section 14 |
|--|
| Newport News Virginia  |

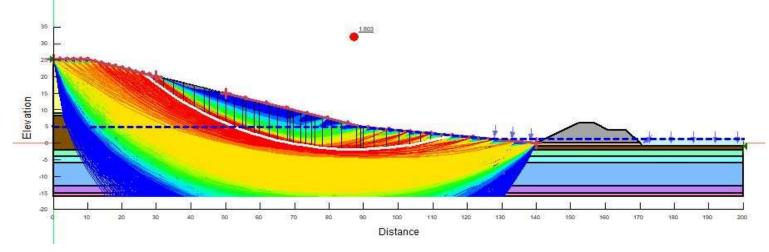
4H:1V Living Shoreline with Vegetated Berm Case 1 End of Construction

| Color | Name                      | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phi'<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|-------|---------------------------|--------------|-------------------------|--------------------|-------------|--------------|---------------------|
|       | Class III<br>Rip-rap      | Mohr-Coulomb | 140                     | 0                  | 42          | 0            | 1                   |
|       | CL-ML                     | Mohr-Coulomb | 111                     | 500                | 0           | 0            | 1                   |
|       | CL-ML2                    | Mohr-Coulomb | 114                     | 1,200              | 0           | 0            | 1                   |
|       | Compacted<br>SM           | Mohr-Coulomb | 125                     | 0                  | 32          | 0            | 1                   |
|       | ML Mixture                | Mohr-Coulomb | 114                     | 1,000              | 0           | 0            | 1                   |
|       | ML-SM                     | Mohr-Coulomb | 114                     | 0                  | 30          | 0            | 1                   |
|       | ML-SM2                    | Mohr-Coulomb | 115                     | 0                  | 27          | 0            | 1                   |
|       | No. 1 Stone               | Mohr-Coulomb | 125                     | 0                  | 37          | 0            | 1                   |
|       | Sand and<br>Gravel        | Mohr-Coulomb | 120                     | 0                  | 34          | 0            | 1                   |
|       | Sand and<br>Gravel 2      | Mohr-Coulomb | 117                     | 0                  | 32          | 0            | 1                   |
|       | SP-Vegetated<br>Sand Fill | Mohr-Coulomb | 100                     | 0                  | 32          | 0            | 1                   |
|       | SW to SM                  | Mohr-Coulomb | 117                     | 0                  | 34          | 0            | 1                   |



Newport News James River Shoreline Protection CAP Section 14 Newport News, Virginia 4H:1V Living Shoreline with Vegetaled Berm Case 2 Long Term

| Cobr | Name                      | Model        | Unit<br>Weight<br>(pcf) | Cohesion'<br>(psf) | Phi'<br>(°) | Phi-B<br>(°) | Piezometrio<br>Line |
|------|---------------------------|--------------|-------------------------|--------------------|-------------|--------------|---------------------|
|      | CassII<br>Rp-rap          | Mohr-Co ubmb | 140                     | 0                  | 42          | 0            | 1                   |
|      | CL-ML                     | Mohr-Coubmb  | 111                     | 15                 | 22          | 0            | 1                   |
|      | CL-ML2                    | Mohr-Coubmb  | 114                     | 20                 | 26          | 0            | 1                   |
|      | Compacted<br>SM           | Mohr-Co ubmb | 125                     | 0                  | 32          | 0            | 1                   |
|      | ML Mixture                | Mohr-Co ubmb | 114                     | 10                 | 25          | 0            | 1                   |
|      | ML-SM                     | Mohr-Co ubmb | 114                     | 0                  | 30          | 0            | 1                   |
|      | ML-SM2                    | Mohr-Co ubmb | 115                     | 0                  | 27          | 0            | 1                   |
|      | No. 1 Stone               | Mohr-Co ubmb | 125                     | 0                  | 37          | 0            | 1                   |
|      | Sand and<br>Gravel        | Mohr-Co ubmb | 120                     | 0                  | 34          | 0            | 1                   |
|      | Sand and<br>Gravel 2      | Mohr-Co ubmb | 117                     | 0                  | 32          | 0            | 1                   |
|      | SP-Vegetated<br>Sand Fill | Mohr-Co ubmb | 100                     | 0                  | 32          | 0            | 1                   |
|      | SWto SM                   | Mohr-Coubmb  | 117                     | 0                  | 34          | 0            | 1                   |



# ATTACHMENT 5: SCHNABEL GEOTECHNICAL REPORT PROVIDED BY NEWPORT NEWS

# GEOTECHNICAL ENGINEERING DATA REPORT

James River Bank Stabilization Project North Avenue and River Road Newport News, Virginia

Schnabel Reference #13633033 May 10, 2013

Prepared For: CH2M Hill





May 10, 2013

Tim Hare, PE CH2M Hill 5700 Cleveland Street Suite 101 Virginia Beach, VA 23462

Subject: Project #13633033, Geotechnical Engineering Data Report, James River Bank

Stabilization Project, North Avenue and River Road, Newport News, Virginia

Dear Tim:

**SCHNABEL ENGINEERING CONSULTANTS, INC.** (Schnabel) is pleased to submit our geotechnical engineering data report for this project. This document includes tables, figures, and appendices with relevant data collected for this report. These services were performed in accordance with RFP Solicitation No. 432083-2013-02 as authorized by Purchase Order 432083-1000.

#### **SCOPE OF SERVICES**

The scope of services includes the following: subsurface exploration, field engineering services, and a geotechnical engineering data report. The subsurface exploration included four Cone Penetration Tests (CPT) for the project.

# **PROJECT DESCRIPTION**

#### **Site Description**

The site is located along the east bank of the James River west of River Road between about North and South Avenues in Newport News, Virginia. The section of the bank is approximately 600 ft long. The shore line in this area has been severely eroded by wind and wave action from the James River. Slopes along this section of the river front are about 25 ft to 30 ft high with slope angles generally exceeding1H:1V. Several areas have sloughed on to the narrow shore line. Surface cracks along the top of the slope indicating potential slope failures were observed in several areas.

The shoreline at the toe of the slope visually appears stable. There is a mix of riprap, pieces of concrete, and other large debris along the toe of the slope and the shoreline. Vegetation on the slopes is generally brush and small saplings.

We obtained the site information from our site reconnaissance in January 2013 and May 2013. A Site Vicinity Map is included as Figure 1.

# **Regional Geology**

We reviewed existing geologic data and information in our files. Based on this review, the project site is underlain by the Norfolk Formation, which overlies the Miocene Age deposits of the Yorktown Formation.

The Norfolk Formation is composed of fluvial and estuarine beach and nearshore marine sand, clayey sand, organic silt, peat, and clay. The Yorktown Formation typically consists of silty sands and clayey sands containing shell fragments. It is known to be a pre-consolidated and exhibits high strength and low compressibility.

The geologic data and information above is based on geologic map information for the site and test boring data from our files that we have obtained in the vicinity of the site. Test borings, including Standard Penetration Test (SPT) data, were not conducted as part of this study. Upon review of the CPT data and data in our files, it does not appear the Yorktown Formation was encountered during subsurface exploration.

#### SUBSURFACE EXPLORATION

We conducted a subsurface exploration and field testing program to identify the subsurface stratigraphy underlying the site and to evaluate the geotechnical properties of the materials encountered. This program included four Cone Penetrometer Tests. Exploration methods used are discussed below. The appendices contain the results of the exploration.

# **Subsurface Exploration Methods**

#### Cone Penetrometer Test (CPT)

Schnabel's subcontractor, ConeTec, Inc., of Charles City, Virginia, performed four CPTs (CPT-01, CPT-02, CPT-03, and CPT-04) under our observation on May 2, 2013. The CPTs were conducted to a depth of 40 ft. Appendix A includes specific observations, remarks, and data for the soundings. Figure 2, included at the end of this report, indicates the approximate CPT locations. Coordinates for the CPT sounding locations were collected using a submeter GPS unit and are tabulated below in Table 1.

Table 1

| CPT    | Easting      | Northing    |
|--------|--------------|-------------|
| CPT-01 | 12078855.511 | 3537765.570 |
| CPT-02 | 12078916.381 | 3537650.199 |
| CPT-03 | 12079030.246 | 3537432.179 |
| CPT-04 | 12079099.605 | 3537311.010 |

#### SITE GEOLOGY AND SUBSURFACE CONDITIONS

## **Generalized Subsurface Stratigraphy**

We characterized the following generalized subsurface stratigraphy and selected parameters at each CPT location based on the exploration included in the appendices. Detailed parameters versus depth are included in the Tables in Appendix B.

#### **Ground Surface Material**

Approximately 0.2 ft of rootmat and topsoil were measured at the CPT locations.

The CPT sounding data provided by ConeTec, Inc. generally indicates four strata types encountered during the subsurface exploration; sands and sand mixtures, silt mixtures, and clays. We have designated the strata as follows:

- Stratum A, sands and sand mixtures and gravelly sands (gravelly sands only encountered in CPT-04. Stratum A includes well-graded and poorly graded sands with varying amounts of gravel, silt, and clay, classifying (SW, SP, SW-SM, SW-SC, SP-SM, SP-SC, SM, SC, and SC-SM) and well-graded and poorly graded gravel with varying amounts of sand, silt, and clay (GW, GP, GW-GM, GW-GC, GP-GM, GP-GC, GM, GC, and GC-GM).
- Stratum B, Silt mixtures. Stratum B includes silts and elastic silts with varying amounts of clay, gravel, sand, and organics classifying (ML, OL, CL-ML, MH, and OH).
- Stratum C, clays. Stratum C includes clays with varying amounts of sand, gravel, and silt classifying (CL, CL-ML, and MH).

#### CPT-01

Stratum A sands were encountered from depths of about 0.2 ft to 13.8 ft and from about 28.1 ft to 29 ft. Soils at these depths indicated a relative density ranging from about 111 to 124 pcf, friction angles ranging from about 32 to 40 deg., and undrained shear strength values ranging from about 0.4 to 1.3 tsf.

Stratum B silt mixtures were encountered from a depth of about 13.8 ft to 15.6 ft. Soils at this depth indicated a relative density of about 114 pcf, friction angles ranging from about 30 to 31 deg., and undrained shear strength values ranging from 0.6 to 1 tsf.

Stratum C clays were encountered from a depth of about 15.6 ft to 28.1 ft. Soils at this depth indicated a relative density ranging from about 111 to about 115 pcf and undrained shear strength values ranging from 0.2 to 0.5 tsf.

Interbedded layers of Stratum B and C soils were encountered from depths of about 29 ft to 40 ft. Soils at this depth indicated a relative density ranging from about 111 to 121 pcf, friction angles ranging from about 0 to 37 deg., and undrained shear strength values ranging from about 0 to 2.6 tsf.

## CPT-02

Stratum A sands were encountered from a depth of about 0.2 ft to 14.5 ft. Soils at this depth indicated a relative density ranging from about 114 to 124 pcf, friction angles ranging from about 0 to 41 deg., and undrained shear strength values ranging from about 0 to 1.1 tsf.

Interbedded layers of Stratum B and C soils were encountered from a depth of about 14.5 ft to 16.8 ft. Soils at this depth indicated a relative density ranging from about 111 to 114 pcf, friction angles ranging from about 0 to 32 deg., and undrained shear strength values ranging from about 0 to 0.8 tsf.

Stratum C clays were encountered from a depth of about 16.8 ft to 26.2 ft. Soils at this depth indicated a relative density ranging from about 111 to 114 pcf and undrained shear strength values ranging from about 0.2 to 0.5 tsf.

Interbedded layers of Stratum A, B, and C soils were encountered from a depth of about 26.2 ft to 40 ft. Soils at this depth indicate a relative density ranging from about 111 to 124 pcf, friction angles ranging from about 0 to 41 deg., and undrained shear strength values ranging from about 0 to 2.4 tsf.

## **CPT-03**

Stratum A sands were encountered from a depth of about 0.2 ft to 14.6 ft. Soils at this depth indicate a relative density ranging from about 114 to 121 pcf, friction angles ranging from about 31 to 41 deg., and undrained shear strength values ranging from about 0 to 1.4 tsf.

Stratum B silt mixtures were encountered from a depth of about 14.6 ft to 16.1 ft. Soils at this depth indicate a relative density of about 114 pcf, friction angles ranging from about 0 to 32 deg., and undrained shear strength values ranging from about 0 to 0.8 tsf.

Stratum C clays were encountered from depths of about 16.1 ft to 26 ft and 30 ft to 38.6 ft. Soils at this depth indicate a relative density ranging from about 111 to 121 pcf and undrained shear strength values ranging from about 0 to 2.9 tsf.

Interbedded layers of Stratum A and B soils were encountered from a depth of about 26 ft to 30 ft. Soils at this depth indicate a relative density ranging from about 114 to 127 pcf, friction angles ranging from about 0 to 43 deg., and undrained shear strength values ranging from about 0 to 2.4 tsf.

Interbedded layers of Stratum B and C soils were encountered from a depth of about 38.6 ft to 40 ft. Soils at this depth indicate a relative density of about 114 to 121 pcf, friction angles ranging from about 28 to 34 deg., and undrained shear strength values of about 0 tsf.

## **CPT-04**

Stratum A sands were encountered from a depth of about 0.2 ft to 14.6 ft. Soils at this depth indicate a relative density of about 114 to 121 pcf, friction angles ranging from about 0 to 42 deg., and undrained shear strength values ranging from about 0 to 1.3 tsf.

#### **CH2M Hill**

#### James River Bank Stabilization Project, Newport News, Virginia

Stratum C clays were encountered from a depth of about 14.6 ft to 25 ft. Soils at this depth indicate a relative density ranging from about 114 to 127 pcf and undrained shear strengths ranging from about 0 to 0.2 tsf.

Stratum A, B, and C soils were encountered from a depth of about 25 ft to 40 ft. Soils at this depth indicate a relative density of about 114 to 127 pcf, friction angles ranging from about 0 to 43 deg., and undrained shear strength values ranging from about 0 to 2.8 tsf.

#### Groundwater

Groundwater was encountered in each of the four CPT locations at depths of about 19.0 to 28.0 ft below the ground surface. The sounding logs in Appendix A include groundwater observations obtained during the subsurface exploration.

The groundwater levels on the logs indicate the estimate of the hydrostatic water table at the time of the subsurface exploration. The final design should anticipate the fluctuation of the hydrostatic water table depending on variations in precipitation, surface runoff, pumping, tidal action, river levels, evaporation, leaking utilities, and similar factors.

#### **General Recommendations**

This report may be made available to prospective bidders for informational purposes. We recommend that the project specifications contain the following statement:

Schnabel Engineering Consultants, Inc., has prepared this geotechnical engineering data report for this project. This report is for informational purposes only and is not part of the contract documents. The opinions expressed represent the Geotechnical Engineer's interpretation of the subsurface conditions, tests, and the results of analyses conducted. Should the data contained in this report not be adequate for the Contractor's purposes, the Contractor may make, before bidding, independent exploration, tests and analyses. This report may be examined by bidders at the office of the Owner, or copies may be obtained from the Owner at nominal charge.

Additional data and reports prepared by others that could have an impact upon the Contractor's bid should also be made available to prospective bidders for informational purposes.

#### **LIMITATIONS**

We submitted this data report based on the information revealed by the subsurface exploration. We attempted to provide for normal contingencies, but the possibility remains that unexpected conditions may be encountered during construction.

This report has been prepared to aid in the evaluation of this site and to assist in the design of the project. It is intended for use concerning this specific project.

We have endeavored to complete the services identified herein in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality

#### **CH2M Hill**

## James River Bank Stabilization Project, Newport News, Virginia

and under similar conditions as this project. No other representation, express or implied, is included or intended, and no warranty or guarantee is included or intended in this report, or other instrument of service.

We appreciate the opportunity to be of service for this project. Please call us if you have any questions regarding this report.

Sincerely,

SCHNABEL ENGINEERING CONSULTANTS, INC.

Russell W. Rountree Senior Staff Scientist

Frank J. Romano, E.I.T. Senior Staff Engineer

Gilbert T. Seese, PE

Principal

RWR:FJR:GTS:dah

**Figures** 

Appendix A: Subsurface Exploration Data Appendix B: ConeTec CPT Interpretations

Distribution:

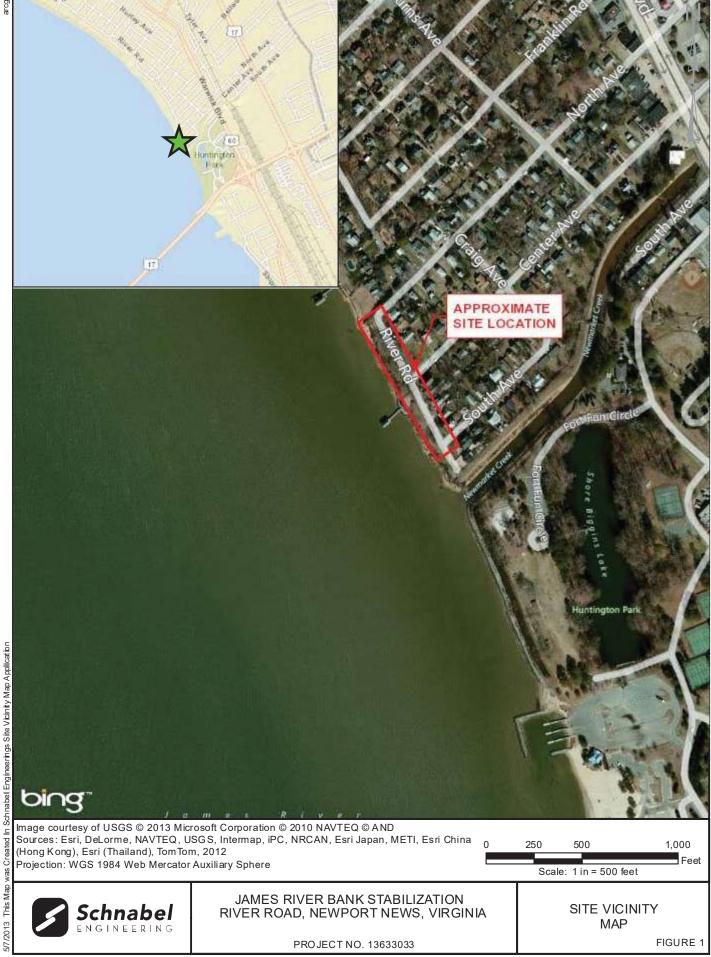
CH2MHill

Attn: Tim Hare, PE

GILBERT T. SEESE, JF Lic. No. 012625

# **FIGURES**

Figure 1: Site Vicinity Map Figure 2: CPT Location Plan







JAMES RIVER BANK STABILIZATION RIVER ROAD NEWPORT NEWS, VIRGINIA

| Figure Name:                    | Done:     | Figure Number: |
|---------------------------------|-----------|----------------|
| CONE PENETROMETER LOCATION PLAN | F. ROMANO | 2              |
| Project Number:                 | Reviewed: | Date:          |
| 13633033                        | G. SEESE  | MAY 2013       |

# **APPENDIX A**

# SUBSURFACE EXPLORATION DATA

ConeTec, Inc., CPTu Testing Report (18 Pages)



# ConeTec Inc.

# Geotechnical and Environmental Site Investigation Contractors

606-S Roxbury Industrial Center, Charles City, VA 23030 • Tel: (804) 966-5696 • Fax: (804) 966-5697

• E-mail: virginia@conetec.com • Website: www.conetec.com

May 3, 2013

Mr. Gib Seese, P.E. Schnabel Engineering 300 Ed Wright Lane Suite I Newport News, VA 23606

Dear Gib,

Re: CPTu Testing

James River Bank Stabilization; Newport News, VA

We are pleased to enclose our data submission for the CPTu testing that ConeTec performed for you at the above referenced site on May 2, 2013.

Four cone penetration tests (CPTu) were completed to depths up to approximately 40 feet beneath the existing ground surface. A compression model electronic piezo cone penetrometer, with a 15 cm $^2$  tip and a 225 cm $^2$  friction sleeve, was used. The cone is designed with an equal end area friction sleeve and a tip end area ratio of 0.80. At the beginning of the sounding, the cone was outfitted with a vacuum-saturated, six millimeter-thick, porous plastic pore pressure element that is located immediately behind the tip (the  $U_2$  location).

The cone was advanced using a 25-ton truck-mounted cone penetration rig. As the cone was advanced into the ground, tip resistance (qc), sleeve friction (fs) and dynamic pore water pressure (U) were recorded every five centimeters (approximately every two inches) and are included in the attached file. A tabular output of this data and summary of engineering parameters, is included in the .xls files.

Thank you very much for using ConeTec. It was a pleasure working with you and your staff and we look forward to working with you again in the future. If you have any questions or require additional information, please do not hesitate to contact us.

Best regards,

Alan Sweeney

Alan Sweeney ConeTec, Inc.



# **James River Bank Stabilization**

Thursday, May 02, 2013 13-54031

# **Table 1: Sounding Information Table**

| Test Type | Sounding Number | Filename      | Depth (ft) | Estimated GWT (ft) | Comments |
|-----------|-----------------|---------------|------------|--------------------|----------|
| CPTu      | CPT-01          | 13-54031_CP01 | 40.0       | 23                 |          |
| CPTu      | CPT-02          | 13-54031_CP02 | 40.0       | 19                 |          |
| CPTu      | CPT-03          | 13-54031 CP03 | 40.2       | 28                 |          |
| CPTu      | CPT-04          | 13-54031_CP04 | 40.0       | 25                 |          |



# **CPTu Plots**



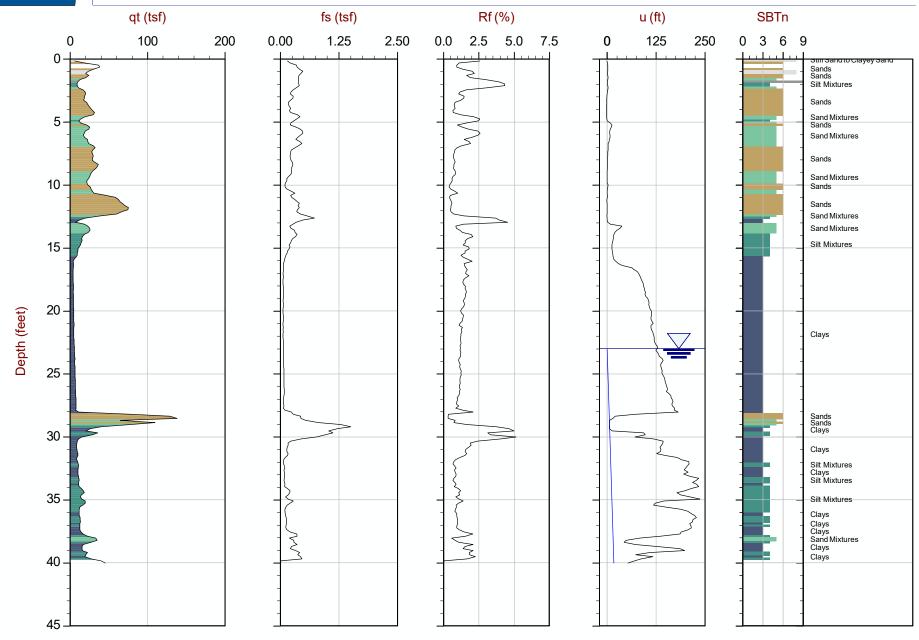
Job No: 13-54031

Date: 05:02:13 10:45

Site: James River Bank Stabilization

Sounding: CPT-01

Cone: 184:T1500F15U500



Max Depth: 12.200 m / 40.03 ft Depth Inc: 0.050 m / 0.164 ft Avg Int: Every Point

File: 13-54031\_CP01.COR Unit Wt: SBT Chart Soil Zones



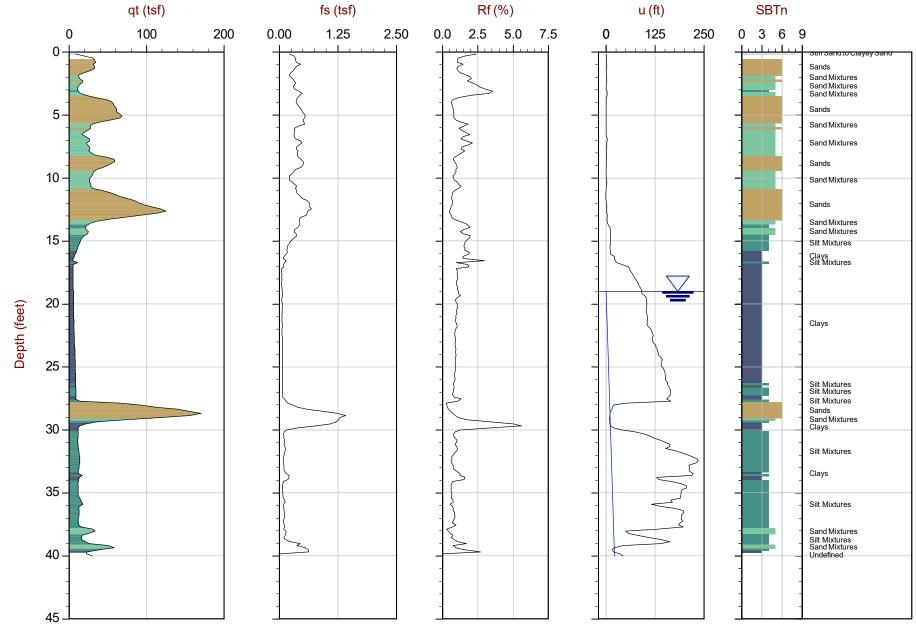
Job No: 13-54031

Date: 05:02:13 09:54

Site: James River Bank Stabilization

Sounding: CPT-02

Cone: 184:T1500F15U500



Max Depth: 12.200 m / 40.03 ft Depth Inc: 0.050 m / 0.164 ft Avg Int: Every Point

File: 13-54031\_CP02.COR Unit Wt: SBT Chart Soil Zones



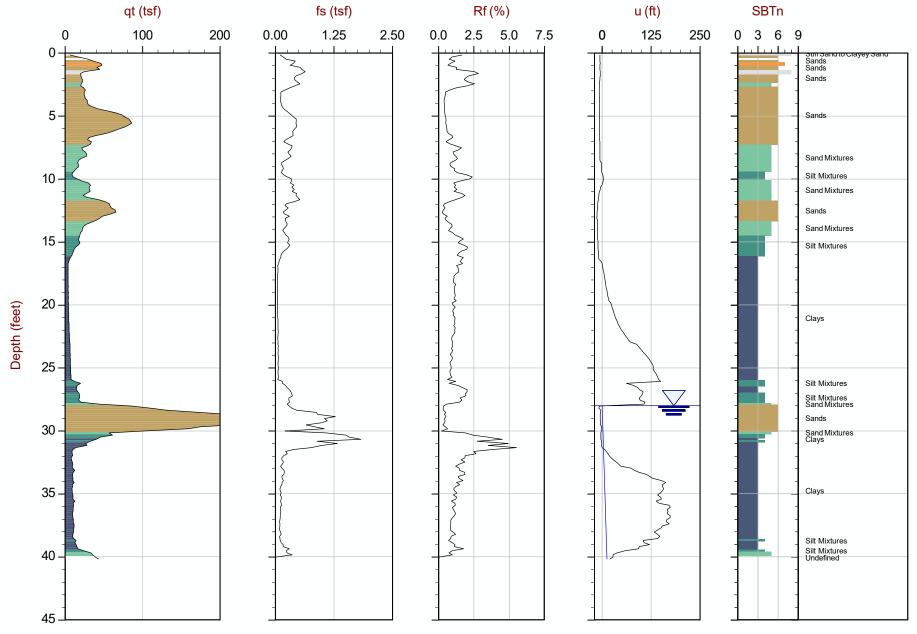
Job No: 13-54031

Date: 05:02:13 12:35

Site: James River Bank Stabilization

Sounding: CPT-03

Cone: 184:T1500F15U500



Max Depth: 12.250 m / 40.19 ft Depth Inc: 0.050 m / 0.164 ft Avg Int: Every Point

File: 13-54031\_CP03.COR Unit Wt: SBT Chart Soil Zones



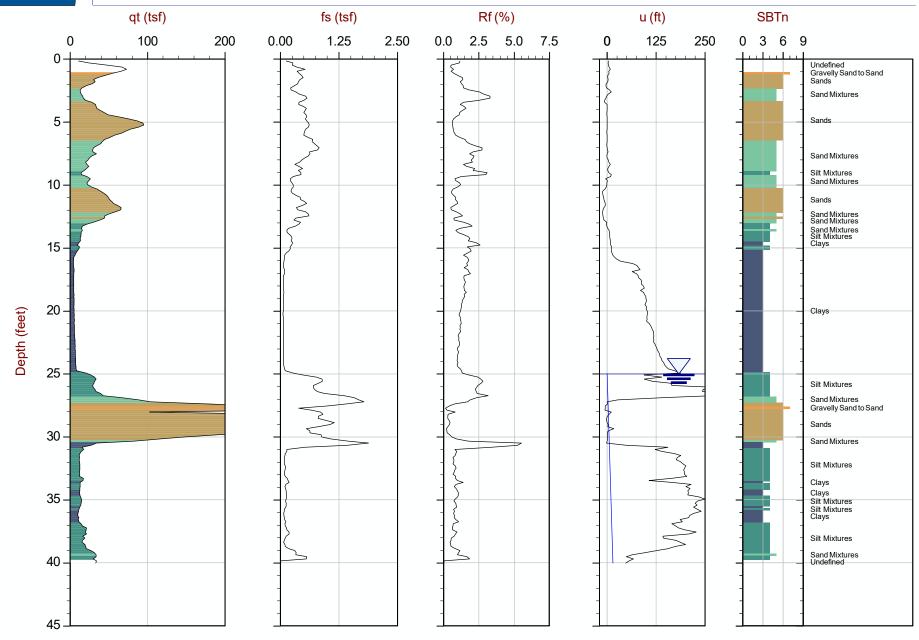
Job No: 13-54031

Date: 05:02:13 11:53

Site: James River Bank Stabilization

Sounding: CPT-04

Cone: 184:T1500F15U500



Max Depth: 12.200 m / 40.03 ft Depth Inc: 0.050 m / 0.164 ft Avg Int: Every Point

File: 13-54031\_CP04.COR Unit Wt: SBT Chart Soil Zones



# Interpretation Methods

# **CONETEC INTERPRETATION METHODS**

# A Detailed Description of the Methods Used in ConeTec's CPT Interpretation and Plotting Software



Revision SZW-Rev 05B

Revised April 25, 2013

Prepared by Jim Greig





# Environmental and Geotechnical Site Investigation Contractors

## ConeTec Interpretations as of April 25, 2013

ConeTec's interpretation routine provides a tabular output of geotechnical parameters based on current published CPT correlations and is subject to change to reflect the current state of practice. The interpreted values are not considered valid for all soil types. The interpretations are presented only as a guide for geotechnical use and should be carefully scrutinized for consideration in any geotechnical design. Reference to current literature is strongly recommended. ConeTec does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the program and does not assume liability for any use of the results in any design or review. Representative hand calculations should be made for any parameter that is critical for design purposes. The end user of the interpreted output should also be fully aware of the techniques and the limitations of any method used in this program. The purpose of this document is to inform the user as to which methods were used and what the appropriate papers and/or publications are for further reference.

The CPT interpretations are based on values of tip, sleeve friction and pore pressure averaged over a user specified interval (e.g. 0.20m). Note that  $q_t$  is the tip resistance corrected for pore pressure effects and  $q_c$  is the recorded tip resistance. Since all ConeTec cones have equal end area friction sleeves, pore pressure corrections to sleeve friction,  $f_s$ , are not required.

The tip correction is:  $q_t = q_c + (1-a) \cdot u_2$ 

where:  $q_t$  is the corrected tip resistance  $q_c$  is the recorded tip resistance

u<sub>2</sub> is the recorded dynamic pore pressure behind the tip (u<sub>2</sub> position) a is the Net Area Ratio for the cone (typically 0.80 for ConeTec cones)

The total stress calculations are based on soil unit weights that have been assigned to the Soil Behavior Type zones, from a user defined unit weight profile or by using a single value throughout the profile.

Effective vertical overburden stresses are calculated based on a hydrostatic distribution of equilibrium pore pressures below the water table or from a user defined equilibrium pore pressure profile (this can be obtained from CPT dissipation tests). For over water projects the effects of the column of water have been taken into account as has the appropriate unit weight of water. How this is done depends on where the instruments were zeroed (i.e. on deck or at mud line).

Details regarding the interpretation methods for all of the interpreted parameters are provided in Table 1. The appropriate references cited in Table 1 are listed in Table 2. Where methods are based on charts or techniques that are too complex to describe in this summary the user should refer to the cited material.

The Soil Behavior Type classification charts (normalized and non-normalized) shown in Figures 1 and 2 are based on the charts developed by Dr. Robertson and Dr. Campanella at the University of British Columbia. These charts appear in many publications, most notably: Robertson, Campanella, Gillespie and Greig (1986); Robertson (1990) and Lunne, Robertson and Powell (1997). The Bq classification charts shown in Figures 3a and 3b are based on those described in Robertson (1990) and Lunne, Robertson and Powell (1997). The Jefferies and Davies SBT chart shown in Figure 3c is based on that discussed in Jefferies and Davies, 1993.

Where the results of a calculation/interpretation are declared 'invalid' the value will be represented by the text strings "-9999" or "-9999.0". In some cases the value 0 will be used. Invalid results will occur because of (and not limited to) one or a combination of:

- 1. Invalid or undefined CPT data (e.g. drilled out section or data gap).
- 2. Where the interpretation method is inappropriate, for example, drained parameters in an undrained material (and vice versa).

CPT Interpretation Methods Page 2/9

3. Where interpretation input values are beyond the range of the referenced charts or specified limitations of the interpretation method.

4. Where pre-requisite or intermediate interpretation calculations are invalid.

The parameters selected for output from the program are often specific to a particular project. As such, not all of the interpreted parameters listed in Table 1 may be included in the output files delivered with this report.

The output files are provided in Microsoft Excel XLS format. The ConeTec software has several options for output depending on the number or types of interpreted parameters desired. Each output file will be named using the original COR file basename followed by a three or four letter indicator of the interpretation set selected (e.g. BSC, TBL, NLI or IFI) and possibly followed by an operator selected suffix identifying the characteristics of the particular interpretation run.

Table 1
CPT Interpretation Methods

| Interpreted<br>Parameter | Description   | Equation   | Ref |
|--------------------------|---|--|-----|
| Depth                    | Mid Layer Depth  (where interpretations are done at each point then Mid Layer Depth = Recorded Depth)   | Depth (Layer Top) + Depth (Layer Bottom) / 2.0   |     |
| Elevation                | Elevation of Mid Layer based on sounding collar elevation supplied by client  | Elevation = Collar Elevation - Depth   |     |
| Avgqc                    | Averaged recorded tip value (qc)  | $A v g q c = \frac{1}{n} \sum_{i=1}^{n} q_{c}$ $n=1 \text{ when interpretations are done at each point}$ |     |
| Avgqt                    | Averaged corrected tip $(q_t)$ where: $q_t = q_c + (1 - a) \bullet u$   | $Avgqt = \frac{1}{n} \sum_{i=1}^{n} q$ $n=1 \text{ when interpretations are done at each point}$         |     |
| Avgfs                    | Averaged sleeve friction (f <sub>s</sub> )  | $Avgfs = \frac{1}{n} \sum_{i=1}^{n} fs$ n=1 when interpretations are done at each point                  |     |
| AvgRf                    | Averaged friction ratio (Rf) where friction ratio is defined as: $Rf = 100\% \bullet \frac{fs}{qt}$   | $AvgRf = 100\% \cdot \frac{Avgfs}{Avgqt}$ $n=1$ when interpretations are done at each point              |     |
| Avgu                     | Averaged dynamic pore pressure (u)  | $Avgu = \frac{1}{n} \sum_{i=1}^{n} u$ n=1 when interpretations are done at each point                    |     |
| AvgRes                   | Averaged Resistivity (this data is not always available since it is a specialized test requiring an additional module)                            | $Avgu = \frac{1}{n} \sum_{i=1}^{n} RESISTIVITY$ n=1 when interpretations are done at each point          |     |
| AvgUVIF                  | Averaged UVIF ultra-violet induced fluorescence (this data is not always available since it is a specialized test requiring an additional module) | $Avgu = \frac{1}{n} \sum_{i=1}^{n} UVIF$ n=1 when interpretations are done at each point                 |     |
| AvgTemp                  | Averaged Temperature (this data is not always available since it is a specialized test)   | $Avgu = \frac{1}{n} \sum_{i=1}^{n} TEMPERATURE$ n=1 when interpretations are done at each point          |     |



CPT Interpretation Methods Page 3/9

| Interpreted<br>Parameter           | Description   | Equation   | Ref           |
|------------------------------------|---|--|---------------|
| AvgGamma                           | Averaged Gamma Counts (this data is not always available since it is a specialized test requiring an additional module)   | $Avgu = \frac{1}{n} \sum_{i=1}^{n} GAMMA$ $n=1 \text{ when interpretations are done at each point}$  |               |
| SBT                                | Soil Behavior Type as defined by Robertson and Campanella   | See Figure 1   | 2, 5          |
| U.Wt.                              | Unit Weight of soil determined from one of the following user selectable options:  1) uniform value 2) value assigned to each SBT zone 3) user supplied unit weight profile | See references   | 5             |
| T. Stress                          | Total vertical overburden stress at Mid Layer Depth.  | $TStress = \sum_{i=1}^{n} \gamma_{i} h_{i}$  |               |
| $\sigma_{\scriptscriptstyle V}$    | A layer is defined as the averaging interval specified by<br>the user. For data interpreted at each point the Mid Layer<br>Depth is the same as the recorded depth.         | where $\eta_i$ is layer unit weight $h_i$ is layer thickness   |               |
| E. Stress<br>σ <sub>V</sub>        | Effective vertical overburden stress at Mid Layer Depth   | Estress = Tstress - u <sub>eq</sub>  |               |
| Ueq                                | Equilibrium pore pressure determined from one of the following user selectable options:  1) hydrostatic from water table depth 2) user supplied profile                     | For hydrostatic option: $u_{eq} = \gamma_w \cdot (D - D_{wt})$ where $u_{eq} \text{ is equilibrium pore pressure}$ $\gamma_w \text{ is unit weight of water}$ $D \text{ is the current depth}$ $D_{wt} \text{ is the depth to the water table}$  |               |
| Cn                                 | SPT N <sub>60</sub> overburden correction factor  | Cn= $(\sigma_V')^{-0.5}$<br>where $\sigma_V'$ is in tsf<br>$0.5 < C_n < 2.0$   |               |
| N <sub>60</sub>                    | SPT N value at 60% energy calculated from qt/N ratios assigned to each SBT zone. This method has abrupt N value changes at zone boundaries.                                 | See Figure 1   | 4, 5          |
| (N <sub>1</sub> ) <sub>60</sub>    | SPT N <sub>60</sub> value corrected for overburden pressure   | $(N_1)_{60} = Cn \cdot N_{60}$   | 4             |
| N <sub>60</sub> I <sub>c</sub>     | SPT N <sub>60</sub> values based on the lc parameter  | (qt/pa)/ N <sub>60</sub> = 8.5 (1 – Ic/4.6)  | 5             |
| (N <sub>1</sub> ) <sub>60</sub> Ic | SPT $N_{60}$ value corrected for overburden pressure (using $N_{60}$ $I_{c)}$ . User has 2 options.   | 1) $(N_1)_{60}$   $c = Cn \cdot (N_{60} \cdot lc)$<br>2) $q_{c1n}/(N_1)_{60}$   $c = 8.5 \cdot (1 - lc/4.6)$   | 4<br>5        |
| (N₁) <sub>60cs</sub> Ic            | Clean sand equivalent SPT ( $N_1$ ) $_{60}$ Ic. User has 3 options.   | 1) $(N_1)_{60cs}Ic = \alpha + \beta((N_1)_{60}Ic)$<br>2) $(N_1)_{60cs}Ic = K_{SPT} * ((N_1)_{60}Ic)$<br>3) $q_{c1ncs})/(N_1)_{60cs}Ic = 8.5 (1 - Ic/4.6)$<br>$FC \le 5\%: \qquad \alpha = 0,  \beta = 1.0$<br>$FC \ge 35\% \qquad \alpha = 5.0,  \beta = 1.2$<br>$5\% < FC < 35\% \qquad \alpha = \exp[1.76 - (190/FC^2)]$<br>$\beta = [0.99 + (FC^{1.5}/1000)]$ | 10<br>10<br>5 |
| Su                                 | Undrained shear strength based on $q_t$ Su factor $N_{\text{kt}}$ is user selectable  | $Su = \frac{qt - \sigma}{N_{kt}}$  | 1, 5          |
| Su                                 | Undrained shear strength based on pore pressure Su factor $N_{\Delta u}$ is user selectable   | $Su = \frac{u_2 - u_{eq}}{N_{\Delta u}}$   | 1, 5          |
| k                                  | Coefficient of permeability (assigned to each SBT zone)   |  | 5             |



CPT Interpretation Methods Page 4/9

| Interpreted<br>Parameter | Description   | Equation   | Ref               |
|--------------------------|---|--|-------------------|
| Bq                       | Pore pressure parameter   | $Bq = rac{\Delta u}{qt - \sigma_v}$ where: $\Delta u = u - u_{eq}$ and $u = dynamic pore pressure$ $u_{eq} = equilibrium pore pressure$   | 1, 5              |
| Qt                       | Normalized q <sub>t</sub> for Soil Behavior Type classification as defined by Robertson, 1990   | $Qt = \frac{qt - \sigma_{v}}{\sigma_{v}}$ $Fr = 100\% \cdot \frac{fs}{qt - \sigma_{v}}$  | 2, 5              |
| Fr                       | Normalized Friction Ratio for Soil Behavior Type classification as defined by Robertson, 1990   | $Fr = 100\% \cdot \frac{fs}{qt - \sigma_{v}}$  | 2, 5              |
| Net qt                   | Net tip resistance  | $qt-\sigma_{v}$  |                   |
| qe                       | Effective tip resistance  | $qt-u_2$   |                   |
| qeNorm                   | Normalized effective tip resistance   | $\frac{qt - u_2}{\sigma_{v}}$  |                   |
| SBTn                     | Normalized Soil Behavior Type as defined by Robertson and Campanella  | See Figure 2   | 2, 5              |
| SBT-BQ                   | Non-normalized Soil Behavior type based on the Bq parameter   | See Figure 3   | 2, 5              |
| SBT-BQn                  | Normalized Soil Behavior based on the Bq parameter  | See Figure 3   | 2, 5              |
| SBT-JandD                | Soil Behaviour Type as defined by Jeffries and Davies   | See Figure 3   | 7                 |
| SBT-BQn                  | Normalized Soil Behavior base on the Bq parameter   | See Figure 3   | 2, 5              |
| I <sub>c</sub>           | Soil index for estimating grain characteristics   | $Ic = [(3.47 - log_{10}Q)^2 + (log_{10} Fr + 1.22)^2]^{0.5}$ $Where: Q = \left(\frac{qt - \sigma_v}{P_{a2}}\right) \left(\frac{P_a}{\sigma_v}\right)^n$ $And Fr is in percent P_a = atmospheric pressure P_{a2} = atmospheric pressure n varies from 0.5 to 1.0 and is selected in an iterative manner based on the resulting I_c$ | 3, 8              |
| FC                       | Apparent fines content (%)  | FC=1.75( $Ic^{3.25}$ ) - 3.7<br>FC=100 for $Ic$ > 3.5<br>FC=0 for $Ic$ < 1.26<br>FC = 5% if 1.64 < $Ic$ < 2.6 AND $F_r$ <0.5   | 3                 |
| Ic Zone                  | This parameter is the Soil Behavior Type zone based on the Ic parameter (valid for zones 2 through 7 on SBTn chart)   | Ic < 1.31  | 3                 |
| PHI<br>φ                 | Friction Angle determined from one of the following user selectable options:  a) Campanella and Robertson b) Durgunoglu and Mitchel c) Janbu d) Kulhawy and Mayne | See reference  | 5<br>5<br>5<br>11 |



CPT Interpretation Methods Page 5/9

| Interpreted<br>Parameter | Description  | Equation  | Ref     |
|--------------------------|--|---|---------|
| Dr                       | Relative Density determined from one of the following user selectable options:  a) Ticino Sand b) Hokksund Sand c) Schmertmann 1976 d) Jamiolkowski - All Sands  | See reference   | 5       |
| OCR                      | Over Consolidation Ratio   | a) Based on Schmertmann's method involving a plot of $S_u/\sigma_v$ ' /( $S_u/\sigma_v$ ') <sub>NC</sub> and OCR where the Su/p' ratio for NC clay is user selectable   | 9       |
| State<br>Parameter       | The state parameter is used to describe whether a soil is contractive (SP is positive) or dilative (SP is negative) at large strains based on the work by Been and Jefferies   | See reference   | 8, 6, 5 |
| Es/qt                    | Intermediate parameter for calculating Young's Modulus, E, in sands. It is the Y axis of the reference chart.  | Based on Figure 5.59 in the reference   | 5       |
| Young's<br>Modulus E     | Young's Modulus based on the work done in Italy. There are three types of sands considered in this technique. The user selects the appropriate type for the site from:  a) OC Sands b) Aged NC Sands c) Recent NC Sands Each sand type has a family of curves that depend on mean normal stress. The program calculates mean normal stress and linearly interpolates between the two extremes provided in the Es/qt chart. | Mean normal stress is evaluated from: $\sigma_{_{m}} = \frac{1}{3} \left( \sigma_{_{v}} + \sigma_{_{h}} + \sigma_{_{h}} \right)^{3}$ where $\sigma_{_{v}} = \text{vertical effective stress}$ $\sigma_{_{h}} = \text{horizontal effective stress}$ and $\sigma_{_{h}} = K_{_{0}} \cdot \sigma_{_{v}}  \text{with Ko assumed to be 0.5}$ | 5       |
| q <sub>c1</sub>          | q <sub>t</sub> normalized for overburden stress used for seismic analysis  | $q_{c1} = q_t \cdot (Pa/\sigma_v')^{0.5}$<br>where: Pa = atm. Pressure<br>$q_t$ is in MPa   | 3       |
| q <sub>c1n</sub>         | $q_{c1}$ in dimensionless form used for seismic analysis   | $q_{c1n} = (q_{c1} / Pa)(Pa/\sigma_v')^n$<br>where: Pa = atm. Pressure and n ranges from 0.5 to 1.0 based on lc.  | 3       |
| K <sub>SPT</sub>         | Equivalent clean sand factor for (N <sub>1</sub> )60   | $K_{SPT} = 1 + ((0.75/30) \cdot (FC - 5))$  | 10      |
| K <sub>CPT</sub>         | Equivalent clean sand correction for q <sub>c1N</sub>  | $K_{cpt} = 1.0$ for $I_c \le 1.64$<br>$K_{cpt} = f(I_c)$ for $I_c > 1.64$ (see reference)   | 10      |
| q <sub>c1ncs</sub>       | Clean sand equivalent q <sub>c1n</sub>   | $q_{c1ncs} = q_{c1n} \cdot K_{cpt}$   | 3       |
| CRR                      | Cyclic Resistance Ratio (for Magnitude 7.5)  | $q_{c1ncs} < 50$ :<br>$CRR_{7.5} = 0.833 [(q_{c1ncs}/1000] + 0.05$<br>$50 \le q_{c1ncs} < 160$ :<br>$CRR_{7.5} = 93 [(q_{c1ncs}/1000]^3 + 0.08$   | 10      |

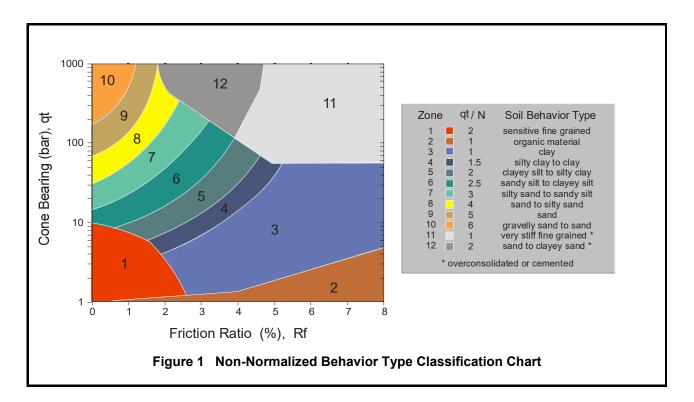


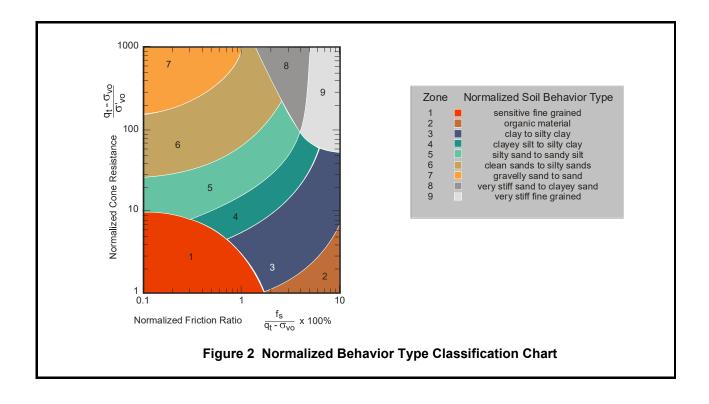
CPT Interpretation Methods Page 6/9

| Interpreted<br>Parameter | Description  | Equation  | Ref |
|--------------------------|--|---|-----|
| CSR                      | Cyclic Stress Ratio  | $\begin{split} &CSR = (\tau_{av}/\sigma_{v}') = 0.65 \; (a_{max}  /  g) \; (\sigma_{v} /  \sigma_{v}') \; r_{d} \\ &r_{d} = 1.0 - 0.00765 \; z \qquad z \; \leq \; 9.15m \\ &r_{d} = 1.174 - 0.0267 \; z \qquad 9.15 \; < \; z \; \leq \; 23m \\ &r_{d} = 0.744 - 0.008 \; z \qquad 23 \; < \; z \; \leq \; 30m \\ &r_{d} = 0.50 \qquad \qquad z \; > \; 30m \end{split}$ | 10  |
| MSF                      | Magnitude Scaling Factor   | See Reference   | 10  |
| FofS                     | Factor of Safety against Liquefaction  | FS = (CRR <sub>7.5</sub> / CSR) MSF   | 10  |
| Liquefaction<br>Status   | Statement indicating possible liquefaction                                   | Takes into account FofS and limitations based on $I_c$ and $q_{c1ncs}$ .  | 10  |
| Cont/Dilat<br>Tip        | Contractive / Dilative qc1 Boundary based on (N <sub>1</sub> ) <sub>60</sub> | $(\sigma_v')_{boundary} = 9.58 \times 10^{-4} [(N_1)_{60}]^{4.79}$<br>qc1 is calculated from specified qt(MPa)/N ratio  | 13  |
| Cq                       | Normalizing Factor   | $Cq = 1.8 / (0.8 + ((\sigma_v'/Pa)))$   | 12  |
| qc1 (Cq)                 | Normalized tip resistance based on Cq  | $q_{c1} = C_q * q_t$ (some papers use $q_c$ )   | 12  |
| Su(Liq)/s'v              | Liquefied Shear Strength Ratio   | $\frac{\text{Su(Liq)}}{\sigma_{\text{v}}'} = 0.03 + 0.0143(q_{\text{c1}})$  | 13  |



CPT Interpretation Methods Page 7/9





CPT Interpretation Methods Page 8/9

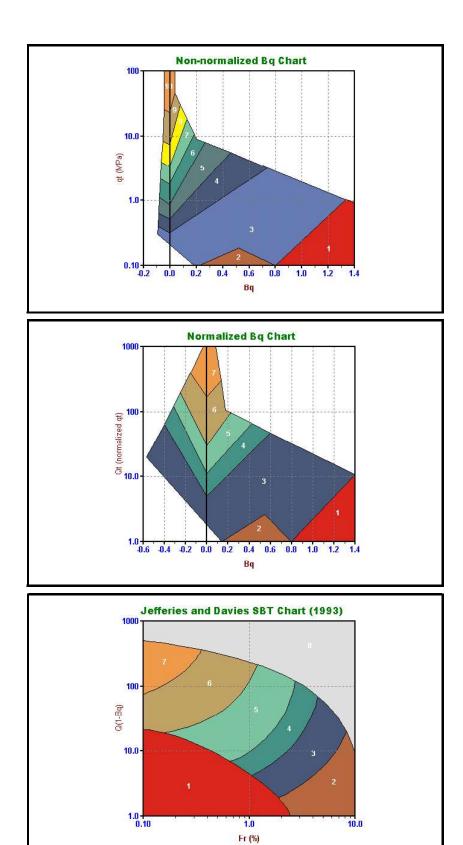


Figure 3 – Alternate Soil Behaviour Type Charts



# Table 2 References

| No. | References   |
|-----|--|
| 1   | Robertson, P.K., Campanella, R.G., Gillespie, D. and Greig, J., 1986, "Use of Piezometer Cone Data", Proceedings of InSitu 86, ASCE Specialty Conference, Blacksburg, Virginia.                          |
| 2   | Robertson, P.K., 1990, "Soil Classification Using the Cone Penetration Test", Canadian Geotechnical Journal, Volume 27.  |
| 3   | Robertson, P.K. and Fear, C.E., 1998, "Evaluating cyclic liquefaction potential using the cone penetration test", Canadian Geotechnical Journal, 35: 442-459.  |
| 4   | Robertson, P.K. and Wride, C.E., 1998, "Cyclic Liquefaction and its Evaluation Based on SPT and CPT", NCEER Workshop Paper, January 22, 1997   |
| 5   | Lunne, T., Robertson, P.K. and Powell, J. J. M., 1997, "Cone Penetration Testing in Geotechnical Practice," Blackie Academic and Professional.   |
| 6   | Plewes, H.D., Davies, M.P. and Jefferies, M.G., 1992, "CPT Based Screening Procedure for Evaluating Liquefaction Susceptibility", 45th Canadian Geotechnical Conference, Toronto, Ontario, October 1992. |
| 7   | Jefferies, M.G. and Davies, M.P., 1993. "Use of CPTu to Estimate equivalent N <sub>60</sub> ", Geotechnical Testing Journal, 16(4): 458-467.   |
| 8   | Been, K. and Jefferies, M.P., 1985, "A state parameter for sands", Geotechnique, 35(2), 99-112.  |
| 9   | Schmertmann, 1977, "Guidelines for Cone Penetration Test Performance and Design", Federal Highway Administration Report FHWA-TS-78-209, U.S. Department of Transportation                                |
| 10  | Proceedings of theNCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Salt<br>LakeCity, 1996. Chaired by Leslie Youd. 11   |
| 11  | Kulhawy, F.H. and Mayne, P.W. ,1990, "Manual on Estimating Soil Properties for Foundation Design,<br><i>Report No. EL-6800"</i> , Electric Power Research Institute, Palo Alto, CA, August 1990, 306 p.  |
| 12  | Olson, S.M. and Stark, T.D., 2002, "Liquefied strength ratio from liquefied flow filaure case histories", Canadian Geotechnical Journal, 39: 951-966.  |
| 13  | Oslon, Scott M. and Stark, Timothy D., 2003, "Yield Strength Ratio and Liquefaction Analysis of Slopes and Embankments", Journal of Geotechnical and Geoenvironmental Engineering, ASCE, August 2003.    |



# APPENDIX B CPT DATA TABLES

ConeTec Interpretations (12 Pages)

| A  | B C D  | E F G H I J  | K L M   | N  | 0 1  | P Q  | R S  | T  | U  | V V  | / X  | Y Z  | AA   | AB   | AC   | AD   | AE  | AF AG  | AH  | Al   | AJ   | AK   | AL   | AM   | AN   | AO  | AP AQ   | AR   |
|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--|--|--|--|--|--|---|---|--|
| 1  | ConeTec CPT Interpretations  | zW Version 1.19 - Dec 18 2012  |   | +  |  |  |  |  |  |  |  |  | -  |  | $\vdash$   |  |   |  |   | -  |  |  |  |  |  |   |   |  |
| 3  | DAS Version: W47   | 2W Version 1.19 - Dec 10 20 12   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  | _   |  |  |  |  |  |  |   |   |  |
| 4  | Interpretation Format:   | All but Liquefaction Parameters (NLI)  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 5  | Joh No:  | 1367593883   | 1   | _  |  |  |  | -  |  |  |  |  |  | -  |  |  |   |  | -   |  |  |  |  |  |  |   |   |  |
| 7  | Client   | Schnabel   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 8  | Project:<br>Facility:  | James River Bank Stabilization   |   |  |  |  |  |  |  |  |  |  | _  | -  | -  |  |   |  | -   |  |  |  |  |  |  | -   |   |  |
| 10   | Sounding ID:   | CPT-01   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 11   | Cone ID:   | 184:T1500F15U500   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 13   | CPT Date:  | BK-AS<br>May-02-2013   |   | + +  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 14   | CPT Time:  | 10:45  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 15   | CPT File:  | 13-54031_CP01.COR  | 1   |  |  |  |  |  |  |  |  |  | +  | -  | -  |  |   |  | -   |  |  |  |  | -  |  | -   |   |  |
| 17   | Tip Units:   | tsf  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 18   | Sleeve Units:  | tsf  | + + -   |  |  |  |  |  | _  |  |  |  |  | -  |  |  |   |  | _   | _  |  |  |  |  |  |   |   |  |
| 20   | Tip Conversion to bar:   | 0.9580   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 21   | Sleeve Conversion to bar:<br>PP Conversion to meters:  | 0.9580   |   |  |  |  |  |  |  |  |  |  | _  | -  | -  |  |   |  | -   |  |  |  |  | -  |  | -   |   |  |
| 23   | FF Conversion to meters.   | 0.3030   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 24   | Col 5 (Extra Module) Units   | N/A  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 26   | Col 5 (Extra Module) Units   | N/A  | •   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  | -   |  |  |  |  |  |  |   |   |  |
| 27   | Coord Source:<br>Coord Type:   | GPS<br>LATIONIC  | $+$ $\top$  | $\perp$  |  |  |  |  |  |  |  |  |  |  | $\vdash$   |  |   |  | -   | 1  |  |  | $\vdash = \downarrow$  | -  |  |   |   |  |
| 28   | Coord Type:<br>UTM Zone:   | N/A  | <u> </u>  | +  |  | _  |  | 1  | -+   | -  |  |  |  |  | $\vdash$   |  | -   |  | +   | 1  |  |  | 1  | +  | -  | -   | _   | +  |
| 30   | Easting / Long:  | -76.458592   |   | $\perp$  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 31   | Northing / Lat:<br>Elevation:  | 37.021410<br>0.000   | 1   | +  |  |  |  | 1  |  |  |  |  | +  |  |  |  | -   |  | 1   | 1  |  | -  |  | +  | -  |   |   | +-   |
| 33   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 35   | Tip Net Area Ratio:<br>Unit Weight of Soil Base:   | U.8U<br>Based on Soil Zones  | 1   | +  |  | +  |  | 1  |  | _  | _  |  | +  | 1  | $\vdash$   | $\vdash$   | -+  |  | +   | 1  |  |  | $\vdash$   |  | -+   | -+  |   | +  |
| 36   | Unit Weight of Soil (Def):   | 19.00 kN/m*3 120.91 pcf  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 38   | Unit Weight of Water:<br>Equilibrium U Profile Used:   | 9.81 kN/m <sup>2</sup> 3 62.43 pcf<br>No   | 1   | +-+  |  | +  |  | +  |  |  |  |  | +  | 1  | $\vdash$   |  |   |  | -   | 1  | <b>-</b>   |  | $\vdash$   |  |  |   |   | +  |
| 39   | Soil Unit Weight Profile Used:   | No   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 40   | Water Table<br>Averaging Interval:   | 7.01 m 23.00 ft<br>0.00 m 0.00 ft  |   | ++   |  |  |  |  |  |  |  |  |  |  | $\vdash$   |  |   |  |   | -  |  |  |  |  |  |   |   |  |
| 42   |  | <del>                                      </del>  | •   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 43   | Su Factors Nkt and Ndu:<br>Cn Exp. and Limits:   | 15.0 8.0<br>0.50 0.00 1.70   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 45   | Qc1 Exp. and Limits:   | 0.50 0.00 1.70   |   | + +  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 46   | State Parameter M:<br>NC Su / p':  | 1.20   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 48   | NC Su / p:<br>Relative Density Method:   | All Sands - Jamilokowski (1985)  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 49   | Phi Angle Method:  | Kulhawy and Mayne (1990)   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 51   | Youngs Modulus Sand Type:<br>N160ic Method:  | Recent Based on gc1n   |   |  |  |  |  |  |  |  | _  |  |  | -  |  |  |   |  | _   |  |  |  |  |  |  |   |   |  |
| 91   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |  |  |  |  |  |  |   |   |  |
| 52<br>Doeth  |  |  | COT Do COT Doo  | 11-230   | TO:   FO   | 5-1  |  | Neco   | NACON N  | CO (II.)   NACO  |  | No.  | Date Heat  |  | 0(4.0-)  |  |   | 1. 50  |   | DI:  |  | Fotos  | F  | 0000   | 0014.3   | 000   | -4 (0-)   |  |
| 52<br>53 Depth<br>54 m   | Depth Elev Elev  | Avg qt Avg fs Avg u Avg Rf SBT SBTn tsf tsf ft %   | SBTBq SBTBqn  | Unit Wt.   | TStress ES   | tsf tsf  | Equil u Cn   | bpf  | bpf  |  | pf   | Norm: Fr Net qt  |  |  | Q(1-Bq)  | qe<br>MPa  | qeNorm  | le FC  | Dr<br>%   | Phi<br>deg   |  | Es/qt  | tsf  | tsf  | tsf  |   | c1 (Cn) qc  |  |
| 52<br>53 Depth<br>54 m<br>55 0.050   | Depth   Elev   Elev   ft   m   ft   0.164   -0.050   -0.164  | Avg qt Avg fs Avg u Avg Rf SBT SBTn tsf tsf ft % 6.077 0.157 -0.450 2.583 4 8  | 5 7 8   | pcf<br>114.551   | tsf<br>0.009 0.  | tsf tsf<br>0.009 0.000   | ft<br>0.000 1.700  | bpf<br>3.881   | bpf<br>6.598   | bpf b  | pf<br>275 645.883  | % tsf<br>2.587 6.068   | -0.002   | -0.002   | 647.379  | MPa<br>0.584   |   | le FC % 2.965 56.13  |   | deg<br>0.000   |  | 0.000  | tsf<br>0.000   | tsf<br>0.405   | tsf<br>0.000 1   | 10.000  | MPa<br>0.990 9.8  | 97 9.897   |
| 56 0.100<br>57 0.150   | Depth Elev Elev<br>ft m ft<br>0.164 -0.050 -0.164<br>0.328 -0.100 -0.328<br>0.492 -0.150 -0.492  | Avg qt Avg fs Avg u Avg Rf SBT SBTn<br>tsf tsf ft %<br>1 6.077 0.157 -0.450 2.583 4 8<br>18.615 0.209 0.780 1.123 6 6<br>2 36.800 0.343 1.650 0.932 7 0  | 5 7 8<br>6 7 8<br>8 0 0   | pcf<br>114.551<br>114.551<br>117.733   | tsf<br>0.009 0.<br>0.019 0.<br>0.028 0.  | tsf tsf<br>0.009 0.000<br>0.019 0.000<br>0.028 0.000   | ft 0.000 1.700 0.000 1.700 0.000 1.700   | 3.881<br>7.133<br>11.752   | bpf<br>6.598<br>12.126<br>19.978   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.   | pf<br>275 645.883<br>323 989.725<br>813 1298.712   | % tsf<br>2.587 6.068<br>1.124 18.59<br>0.933 36.77   | -0.002<br>5 0.001<br>2 0.001   | -0.002<br>0.001<br>0.001   | 647.379<br>988.428<br>1296.892   | MPa<br>0.584<br>1.781<br>3.521   | 989.429<br>1297.893   | 2.360 24.79<br>2.069 14.88   | 9 75.432<br>1 89.090  | deg<br>0.000<br>33.898<br>37.154   | -0.419<br>-0.421   | 0.000<br>3.727<br>2.680  | tsf<br>0.000<br>69.412<br>98.683   | tsf<br>0.405<br>0.000<br>0.000   | 0.000 1<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000  | MPa<br>0.990 9.8<br>3.032 30.3<br>5.993 59.5  | 97 9.897<br>16 30.316<br>33 59.933   |
| 56 0.100<br>57 0.150<br>58 0.200   | Depth   Elev   Elev  | Avg tt Avg fs Avg u Avg fs SBT SBTn tst st st n 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8  | pcf<br>114.551<br>114.551<br>117.733<br>117.733  | tsf 0.009 0.019 0.028 0.038 0.038 0.038  | tsf tsf<br>0.009 0.000<br>0.019 0.000<br>0.028 0.000<br>0.038 0.000  | ft 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141  | bpf<br>6.598<br>12.126<br>19.978<br>20.640   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.<br>7.768 13.  | pf 275 645.883<br>323 989.725<br>813 1298.712<br>206 1000.31   | % tsf<br>2.587 6.068<br>1.124 18.59<br>0.933 36.77<br>0.953 37.98  | -0.002<br>5 0.001<br>2 0.001<br>2 0.001  | -0.002<br>0.001<br>0.001<br>0.001  | 647.379<br>988.428<br>1296.892<br>999.034  | MPa<br>0.584<br>1.781<br>3.521<br>3.638  | 989.429<br>1297.893<br>1000.035   | 2.360 24.79<br>2.069 14.88<br>2.063 14.70  | 9 75.432<br>1 89.090<br>2 85.820  | deg<br>0.000<br>33.898<br>37.154<br>37.310   | -0.419<br>-0.421<br>-0.399   | 0.000<br>3.727<br>2.680<br>2.637   | tsf<br>0.000<br>69.412<br>98.683<br>100.292  | tsf<br>0.405<br>0.000<br>0.000<br>0.000  | tsf<br>0.000 1<br>0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000<br>0.000   | MPa 0.990 9.8 3.032 30.3 5.993 59.5 6.192 61.5  | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919  |
| 56 0.100<br>57 0.150   | Depth Elev Elev ft m ft 10.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.164 -0.165 -0.492 -0.150 -0.492 -0.150 -0.492 -0.656 -0.200 -0.200 | Avg ct Avg fs Avg u Avg R SB1 SB1n SB1n ft fs  | 5 7 8<br>6 7 8<br>8 0 0   | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551  | tsf 0.009 0. 0.019 0. 0.028 0. 0.038 0. 0.048 0.   | tsf tsf 0.009 0.000 0.019 0.000 0.028 0.000 0.038 0.000 0.048 0.000 0.057 0.000  | ft 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112   | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.<br>7.768 13.<br>6.581 11.<br>5.666 9.0  | pf 275 645.883 323 989.725 813 1298.712 206 1000.313 188 628.512 632 416.980   | % tsf<br>2.587 6.068<br>1.124 18.59<br>0.933 36.77<br>0.953 37.98<br>1.394 29.85<br>2.032 23.72  | -0.002<br>5 0.001<br>2 0.001<br>2 0.001<br>1 0.001<br>2 0.002  | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002  | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612   | MPa<br>0.584<br>1.781<br>3.521<br>3.638<br>2.860   | 989.429<br>1297.893<br>1000.035<br>628.612  | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52   | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724  | deg<br>0.000<br>33.898<br>37.154<br>37.310   | -0.419<br>-0.421<br>-0.399<br>-0.403   | 0.000<br>3.727<br>2.680<br>2.637   | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179  | tsf<br>0.405<br>0.000<br>0.000<br>0.000  | 0.000 1<br>0.000 0<br>0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000   | MPa 0.990 9.8 3.032 30.3 5.993 59.5 6.192 61.5 4.869 48.6   | 97 9.897<br>116 30.316<br>133 59.933<br>119 61.919<br>193 48.693   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350   | Depth Elev Elev<br>ft m ft<br>0.164 -0.059 -0.164<br>0.328 -0.109 -0.362<br>0.492 -0.150 -0.492<br>0.656 -0.200 -0.856<br>0.820 -0.250 -0.820<br>0.984 -0.300 -0.984<br>1.148 -0.350 -1.984  | Ang et Ang fs Ang u Ang R SB1 SB1 h f f f f f f f f f f f f f f f f f f  | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8<br>7 7 8<br>7 7 8<br>7 7 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551  | tsf<br>0.009 0<br>0.019 0<br>0.028 0<br>0.038 0<br>0.048 0<br>0.057 0<br>0.066 0   | tsf tsf 0.009 0.000 0.019 0.000 0.028 0.000 0.038 0.000 0.048 0.000 0.057 0.000 0.066 0.000  | ft 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713  | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.<br>7.768 13.<br>6.581 11.<br>5.666 9.0<br>4.974 8.  | pf<br>275 645.883<br>323 989.725<br>813 1298.712<br>206 1000.31<br>188 628.512<br>532 416.980<br>455 302.643   | % tsf 2.587 6.068 1.124 18.591 0.933 36.77 0.963 37.98 1.394 29.85 2.032 23.72 2.198 20.066  | -0.002<br>6 0.001<br>2 0.001<br>2 0.001<br>1 0.001<br>2 0.002<br>0 0.002   | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002  | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143   | MPa<br>0.584<br>1.781<br>3.521<br>3.638<br>2.860<br>2.274<br>1.925   | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143  | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77   | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>6 66.573<br>1 59.603  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271   | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605  | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593  | tsf<br>0.405<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 1<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>0.990 9.8<br>3.032 30.3<br>5.993 59.6<br>6.192 61.9<br>4.869 48.6<br>3.873 38.7<br>3.278 32.7  | 97 9.897<br>16 30.316<br>33 59.933<br>19 61.919<br>193 48.693<br>26 38.726<br>78 32.778  |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450   | Depth Elev Elev R m R 10.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.452 -0.150 -0.452 -0.150 -0.452 -0.452 -0.450 -0.452 -0.450 - | Ang et Ang fs Ang u Ang R SB1 SB1 SB1 L L L L L L L L L L L L L L L L L L L  | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8<br>7 7 7 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551  | tsf<br>0.009 0<br>0.019 0<br>0.028 0<br>0.038 0<br>0.048 0<br>0.057 0<br>0.066 0<br>0.076 0  | tsf tsf 0.009 0.000 0.019 0.000 0.019 0.000 0.028 0.000 0.038 0.000 0.048 0.000 0.057 0.000 0.066 0.000 0.076 0.000 0.085 0.000  | ft 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811  | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>13.279   | bpf b 1.927 3 4.308 7 7.537 12. 7.768 13. 6.581 11. 5.666 9 4.974 8. 5.640 9 4.940 8.  | pf<br>275 645.883<br>323 989.725<br>813 1298.71;<br>206 1000.31;<br>188 628.512<br>632 416.983<br>455 302.643<br>589 321.050<br>398 238.610  | % tsf<br>2.587 6.068<br>1.124 18.59<br>0.953 36.77:<br>0.953 37.98:<br>1.394 29.85<br>2.032 23.72:<br>2.198 20.06<br>1.650 24.29<br>1.916 20.29!   | 0.002<br>5   | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003  | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766   | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766  | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77<br>2.360 24.80<br>2.461 28.96   | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>6 66.573<br>1 59.603<br>1 63.189<br>2 56.391  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332   | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.585  | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593<br>80.496<br>73.114  | tsf<br>0.405<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | hsf 0.000 1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>0.990 9.8<br>3.032 30.3<br>5.993 59.6<br>6.192 61.9<br>4.869 48.6<br>3.873 38.7<br>3.278 32.7<br>3.969 39.6<br>3.320 33.1  | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919<br>193 48.693<br>226 38.726<br>778 32.778<br>193 39.693<br>198 33.198  |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500   | Depth Elev Elev R m 8 0.154 -0.050 -0.154 0.328 -0.150 -0.452 0.452 -0.150 -0.452 0.655 -0.452 0.820 -0.250 -0.452 0.820 -0.250 -0.820 0.820 -0.250 -0.820 1.148 -0.350 -1.148 1.312 -0.400 -1.312 1.476 -0.450 -1.476   | Ang of Ang Is Ang II Ang II Ang II SB1 SB1 SB1 SB1 Is I Is   | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8  | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bsf 0.009 0 0.019 0 0.028 0 0.038 0 0.048 0 0.057 0 0.066 0 0.076 0.0685 0 0.095 0 0.095   | tsf tsf 0.009 0.000 0.001 0.000 0.028 0.000 0.028 0.000 0.038 0.000 0.038 0.000 0.057 0.000 0.066 0.000 0.076 0.000 0.085 0.000  | ft 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700 0.000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275   | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>13.279<br>10.667   | bpf b 1.927 3.3 4.308 7.3 7.537 12. 7.768 13. 6.581 11. 5.666 9. 4.974 8. 4.974 8. 4.940 8. 3.635 6.   | pf<br>275 645.883<br>323 989.725<br>813 1298.712<br>206 1000.31:<br>188 628.512<br>632 416.980<br>455 302.643<br>321.050<br>398 238.610<br>180 137.668   | % tsf<br>2.587 6.068<br>1.124 18.591<br>0.933 36.77<br>0.953 37.98:<br>1.394 228.5<br>2.032 23.72<br>2.198 20.06<br>1.650 24.29<br>1.916 20.29<br>1.916 32.099   | -0.002<br>5 0.001<br>2 0.001<br>2 0.001<br>1 0.001<br>1 0.002<br>0 0.002<br>7 0.003<br>9 0.004<br>5 0.004  | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>302.241<br>237.766<br>137.156  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156   | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77<br>2.360 24.80<br>2.732 42.17   | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>5 66.573<br>1 59.603<br>1 63.189<br>2 56.391<br>1 0.000   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000  | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>0.000  | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.585<br>0.000   | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593<br>80.496<br>73.114<br>0.000   | tsf 0.405 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.867  | 8sf 0.000 1<br>0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa 0.990 9.8 3.032 30.3 5.993 59.6 6.192 61.5 4.869 48.6 3.873 38.7 32.78 32.78 32.73 3.298 3.329 33.320 33.1 21.33 21.3   | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919<br>93 48.693<br>126 38.726<br>78 32.778<br>99 33.198<br>33.198   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.500   | Depth Elev Elev R m 8 1 15 15 15 15 15 15 15 15 15 15 15 15 1  | Ang of   Ang fs   Ang u   Ang Rf   SBT   SBT     bif   bif   6   %     6.077   0.157   -0.459   -2.583   4   8     18.615   0.209   0.780   1.123   6   6     38.600   0.382   1.560   0.932   7   0     38.600   0.382   1.560   0.932   7   0     38.600   0.382   1.560   0.932   7   0     38.600   0.382   1.560   0.932   7   0     38.600   0.382   1.560   0.952   7   0     38.600   0.382   1.500   0.502   7   0     38.600   0.382   1.500   0.502   6   8     32.779   0.482   1.380   2.077   6   8     32.779   0.482   1.380   2.077   6   8     32.734   0.388   2.200   1.596   6   6     32.734   0.388   2.200   1.596   6   6     32.734   0.389   2.200   1.596   6   6     32.734   0.389   2.300   1.503   2.277   5   6     32.734   0.389   0.1600   3.331   3   9   | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 7 8<br>7 7 7 8<br>6 6 8<br>6 6 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369  | bsf 0.009 0 0.019 0 0.019 0 0.028 0 0.038 0 0.048 0 0.057 0 0.066 0 0.076 0 0.085 0 0.095 0 0.113 0 0.113 0 0.113 0  | tsf tsf tsf  | R 0.000 1.700  | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609   | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>13.279<br>10.667<br>16.199<br>14.635   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.<br>7.768 13.<br>6.581 11.<br>5.666 9.<br>4.974 8.<br>5.640 9.<br>4.940 8.<br>3.635 6.<br>3.036 5.   | pt   | % tsf<br>2.587 6.068<br>1.124 18.59<br>0.933 36.77<br>0.953 37.98:<br>1.394 29.85<br>2.032 23.72:<br>2.198 20.06<br>1.650 24.29<br>1.916 20.29;<br>2.999 13.00<br>3.972 9.843<br>4.395 8.874   | -0.002<br>5 0.001<br>2 0.001<br>1 0.001<br>1 0.002<br>7 0.002<br>7 0.003<br>9 0.004<br>5 0.004   | -0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004  | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.564<br>78.338  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.960 0.858  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338   | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77<br>2.360 24.80<br>2.461 28.96<br>2.732 42.17<br>2.902 52.08<br>2.963 56.05  | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>5 66.573<br>1 59.603<br>1 63.189<br>2 56.391<br>1 0.000<br>2 0.000<br>4 0.000   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000   | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>-0.000<br>-0.000   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.585<br>0.000<br>0.000  | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593<br>80.496<br>73.114<br>0.000<br>0.000  | tsf 0.405 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.005 0.556 0.592  | 8sf 0.000 1<br>0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1 0.000 1 0.000 1 0.004 1 0.004 1   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000   | MPa 0.990 9.8 3.032 30.3 59.5 61.92 61.5 4.869 48.6 3.873 38.7 3.278 32.7 3.969 39.6 3.320 33.1 1.620 16.1 1.464 14.64  | 97 9.897<br>116 30.316<br>133 59.933<br>119 61.919<br>193 48.693<br>126 38.726<br>193 39.693<br>198 33.198<br>199 16.199<br>135 14.635   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.600<br>66 0.600<br>67 0.650   | Depth Elev Elev R m R m G m G m G m G m G m G m G m G m  | Avg ct Avg fs Avg u Avg R5 SB1 SB1n sb1 bf f f 5, 5 SB1 SB1 SB1 sb1 bf f f 5, 5 SB1 SB1 SB1 SB1 bf f f 7, 5 SB1  | 5 7 8<br>6 7 8<br>8 0 0<br>8 0 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8<br>7 7 8<br>6 6 8<br>5 6 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369   | 1sf 0.009 0 0.019 0 0.019 0 0.028 0 0.038 0 0.048 0 0.057 0 0.066 0 0.076 0 0.085 0 0.095 0 0.104 0 0.113 0 0.122 0 0  | tsf tsf 0.000 0.000 0.001 0.001 0.000 0.000 0.000 0.000 0.000 0.008 0.000 0.048 0.000 0.057 0.000 0.066 0.000 0.065 0.000 0.065 0.000 0.065 0.000 0.066 0.000 0.066 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.076 0.000 0.00 | ft 0.000 1.700 0.000 0.0   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979  | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>13.279<br>10.667<br>16.199<br>14.635<br>15.265   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.7537 12.7<br>7.768 13.6<br>6.581 11.<br>5.666 9.0<br>4.974 8.3<br>3.635 6.3<br>3.036 5.<br>2.847 4.3  | pf   | % tsf 2.587 6.068 1.124 18.591 0.933 36.777.0 0.953 37.98: 1.394 22.85 2.032 23.72: 2.198 20.0668 1.650 24.29 1.916 20.299 13.00 3.972 9.843 4.395 8.874 4.410 9.251   | -0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.004<br>-0.004   | -0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.004<br>0.003<br>0.004   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.564<br>78.338<br>75.298  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.858 0.892  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298   | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77<br>2.360 24.80<br>2.461 28.96<br>2.732 42.17<br>2.902 52.09<br>2.963 56.05<br>2.950 55.19   | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>6 66.573<br>1 59.603<br>1 63.189<br>2 56.391<br>0 .000<br>2 0.000<br>4 0.000  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000  | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>0.000<br>0.000<br>0.000  | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.585<br>0.000<br>0.000<br>0.000   | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593<br>80.496<br>73.114<br>0.000<br>0.000<br>0.000   | tsf 0.405 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.005 0.656 0.592 0.617  | 8sf 0.000 1<br>0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1 0.000 | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000  | MPa 0.990 9.8 3.032 30.3 59.9 59.9 59.9 6.192 61.9 48.69 48.6 3.873 38.7 32.7 3.278 32.7 3.2133 21.3 21.3 1.620 16.1 14.64 14.6 1.526 15.26   | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919<br>93 61.919<br>93 22.778<br>93 39.693<br>98 33.198<br>34 21.334<br>99 16.199<br>35 14.635<br>16.565   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.500   | Depth Elev Elev R m R m G m G m G m G m G m G m G m G m  | Ang et   | 5 7 8 8 0 0 8 0 0 8 0 0 8 0 0 8 0 0 8 0   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369<br>111.369<br>111.369   | lsf 0.009 0 0.019 0 0.028 0 0.028 0 0.038 0 0.048 0 0.057 0 0.057 0 0.066 0 0.076 0 0.095 0 0.104 0 0.113 0 0.122 0 0.131 0  | tsf tsf tsf 10,000 | R 0.000 1.700  | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117   | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>10.667<br>16.199<br>14.635<br>15.265<br>12.099   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.2<br>7.768 13.6<br>6.581 11.5<br>5.666 9.1<br>4.974 8.3<br>5.640 9.1<br>4.940 8.3<br>3.036 5.2<br>2.847 4.3<br>2.945 5.0<br>4.945 5.0<br>4.945 5.0<br>4.946 7.0<br>4.947 4.3<br>4.940 8.3<br>4.940 8.3<br>4 | pf 645.883 323 989.725 813 1298.712 206 1000.31: 188 628.512 416.980 455 302.643 5589 321.050 398 238.610 180 137.668 161 94.889 378.620 375.828 437 83.898 437 83.898   | \$\frac{\chi}{6}\$ isf 2.587 6.068 2.587 6.068 1.124 18.591 0.933 36.77. 0.933 36.77. 1.394 29.85 1.394 29.85 1.394 29.85 1.650 24.29 1.916 20.299 1.300 3.972 9.843 4.410 9.251 3.069 11.01.  | 0.002<br>0.002<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.003<br>0.004<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.0  | -0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.004<br>0.003<br>0.004   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.564<br>78.338<br>75.298<br>83.365  | MPa<br>0.584<br>1.781<br>3.521<br>3.638<br>2.860<br>2.274<br>1.925<br>2.329<br>1.946<br>1.250<br>0.960<br>0.858<br>2.800<br>1.061  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365   | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.424 27.40<br>2.502 30.77<br>2.360 24.80<br>2.461 28.96<br>2.732 42.17<br>2.902 52.08<br>2.963 56.05  | 9 75.432<br>1 89.090<br>2 85.820<br>4 75.724<br>6 66.573<br>1 59.603<br>1 63.189<br>2 56.391<br>0 .000<br>2 0.000<br>4 0.000<br>0 0.000   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | -0.419 -0.421 -0.399 -0.403 -0.422 -0.401 -0.359 -0.351 0.000 0.000 0.000 0.000  | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | tsf<br>0.000<br>69.412<br>98.683<br>100.292<br>89.179<br>79.469<br>72.593<br>80.496<br>73.114<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | tel 0.405 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0. | esf 0.000 1 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1 0.00   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000   | MPa 0.990 9.8 3.3032 30.3 5.993 59.9 6.192 61.9 48.6 3.873 38.7 32.7 3.969 39.6 3.278 3.278 3.2133 21.3 21.3 21.5 1.620 16.1 1.464 14.6 1.526 15.2 1.815 18.1   | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919<br>33 48.693<br>26 38.726<br>78 32.778<br>39.833, 198<br>34 21.334<br>99 33, 198<br>34 21.334<br>91 6.199<br>35 14.635<br>15.265<br>49 18.149  |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.650<br>68 0.700<br>70 0.800   | Depth Elev Elev 1  0.164 0.059 -0.164  0.328 -0.100 -0.328  0.402 -0.159 -0.426  0.686 0.200 -0.856  0.200 0.556  0.200 0. | Ang et   | S 7 8 8 0 7 8 8 0 0 8 8 0 0 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 7   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369  | isf 0.009 0 0.019 0 0.019 0 0.028 0 0.028 0 0.038 0 0.048 0 0.057 0 0.057 0 0.066 0 0.076 0 0.085 0 0.095 0 0.104 0 0.113 0 0.122 0 0.131 0 0.141 0 0.150 0 0 0.009 0 0.009 0 0.150 0 0.150 0 0 0.150 0 0 0.009 0 0.009 0 0.150 0 0 0.150 0 0 0.009 0 0.009 0 0.009 0 0.150 0 0 0.150 0 0 0.009 0 0.00 | 18f 18f 18f 18f 180000 18000 1 | ft 0.000 1.700 0.0   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117<br>6.469  | bpf<br>6.598<br>12.126<br>19.978<br>20.640<br>19.477<br>15.480<br>13.111<br>15.877<br>13.279<br>10.667<br>16.199<br>14.635<br>15.265<br>12.099<br>10.997   | bpf b<br>1.927 3.3<br>4.308 7.3<br>7.537 12.7<br>7.768 13.<br>5.666 9.1<br>4.974 8.<br>5.640 9.1<br>4.940 8.3<br>3.635 6.<br>3.036 5.<br>2.847 4.3<br>3.198 5.   | pf<br>275 645.883<br>323 989.725<br>813 1298.712<br>206 1000.317<br>188 628.512<br>332 416.980<br>455 302.643<br>3589 321.050<br>3398 238.610<br>180 137.668<br>161 94.889<br>839 78.620<br>2007 75.828<br>437 83.898<br>941 119.014   | \$\frac{\chi}{6}\$ isf  2.587 6.068  2.587 6.068  2.587 6.068  0.933 36.77  0.933 36.77  0.933 36.77  0.933 36.77  0.933 26.77  0.934 29.85  1.394 29.85  2.032 23.72  2.198 20.06  1.650 24.29  1.916 20.29  2.999 13.00  3.972 9.843  4.395 8.674  4.410 9.251  3.069 11.01  1.643 16.741  1.643 16.741  | 5 -0.002<br>5 -0.001<br>2 -0.001<br>2 -0.001<br>2 -0.002<br>7 -0.003<br>9 -0.004<br>5 -0.004<br>6 -0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.003<br>-0.004<br>-0.003<br>-0.004   | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.004<br>0.004<br>0.004<br>0.004<br>0.007<br>0.006   | 647.379<br>988.428<br>988.428<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.155<br>94.564<br>78.338<br>75.298<br>83.365<br>118.628  | MPa<br>0.584<br>1.781<br>3.521<br>3.638<br>2.860<br>2.274<br>1.925<br>2.329<br>1.946<br>1.250<br>0.950<br>0.858<br>0.892<br>1.061<br>1.612   | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365<br>119.628  | 2.360 24.79 2.069 14.88 2.063 14.70 2.069 14.88 2.063 24.79 2.245 20.52 2.424 27.40 2.502 30.77 2.360 24.80 2.461 28.962 2.732 42.17 2.902 52.09 2.963 56.05 2.963 56.05 2.793 45.61 2.487 30.10   | 9 75.432<br>11 89.090<br>22 85.820<br>4 75.724<br>15 59.603<br>11 63.189<br>22 56.391<br>11 0.000<br>12 0.000<br>14 0.000<br>14 0.000<br>15 0.000<br>16 0.000<br>17 0.000<br>18 0.0000<br>18 0.0 | deg<br>0.000<br>33.895<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.31  | -0.419 -0.421 -0.399 -0.403 -0.422 -0.401 -0.359 -0.351 -0.000 -0.000 -0.000 -0.000 -0.257   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.585<br>0.000<br>0.000<br>0.000<br>0.000  | tsf 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 | tsf 0.405 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.000 0. | tsf 0.000 1 0.000    | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000   | MPa 0.990 9.8 3.032 30.3 5.993 59.9 6.192 61.9 48.69 48.6 3.3 3.278 32.7 3.969 39.6 33.32 1.5 2.133 21.3 21.3 21.3 21.3 21.3 21.3 21.   | 97 9.897<br>116 30.316<br>33 59.933<br>59.933<br>61.919<br>93 48.693<br>26 38.726<br>73 32.778<br>93 39.693<br>98 33.198<br>34 33.198<br>35 14.635<br>49 18.149<br>92 27.492<br>92 27.492<br>93 27.492   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.256<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.650<br>69 0.750   | Depth Elev Elev 1  1 m ft m d depth  | Ang et Ang ls Ang u Ang R SB1 SB1 ls   | 5 7 8 8 6 7 8 8 0 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 7   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.451<br>114.551  | bsf 0.009 0 0.019 0 0.019 0 0.028 0 0.038 0 0.048 0 0.057 0 0.086 0 0.076 0.085 0 0.096 0 0.104 0 0.113 0 0.122 0 0.131 0 0.150 0 0.16 | 1sf  | ft   1.700   1   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117<br>6.469<br>7.552<br>7.713  | bpf 6.598 12.126 20.598 12.126 20.598 19.978 20.640 19.477 15.490 13.111 15.877 10.667 16.199 10.667 12.265 12.099 10.997 12.855 13.112 12.263   | bpf b. 1.927 3.3   | pf   645.883   2323   989.725   645.883   2323   989.725   813   1298.711   188   628.512   628.512   632. | % isf 6.058   1.124 18.59   1.124 18.59   1.933 36.77   1.934 29.55   1.394 29.55   1.394 29.55   1.394 29.55   1.394 29.55   1.394 29.55   1.395 29.99 13.00   1.650 24.29   1.650 24.29   1.305 3.972 9.804   1.495 8.574   1.495 18.65   1.662 19.56   1.662 19.56   1.662 19.56   1.662 19.56   1.662 19.56   1.662 19.56   1.663 1  | -0.002<br>5 0.001<br>2 0.001<br>2 0.001<br>2 0.002<br>0 0.002<br>0 0.002<br>0 0.004<br>0 0.004<br>0 0.004<br>0 0.003<br>3 0.001<br>5 0.001<br>5 0.001<br>0 0.003<br>0 0 0 0.003<br>0 0 0 0.003<br>0 0 0 0 0.003<br>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003   | 988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>302.143<br>337.766<br>137.155<br>94.564<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.304  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.858 0.892 1.061 1.612 1.889 1.925 1.806  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>119.628<br>131.403<br>126.304<br>111.662   | 2.360 24.79 2.069 14.88 2.063 14.28 2.063 14.28 2.245 20.52 2.424 27.40 2.360 24.80 2.362 24.80 2.362 24.80 2.362 52.99 2.963 56.05 2.993 45.61 2.373 45.61 2.384 24.33 2.322 23.38  | 9 75.4322<br>1 89.0903<br>4 75.724<br>5 66.573<br>1 59.603<br>1 59.603<br>1 0.000<br>2 0.000<br>4 0.000<br>4 0.000<br>4 4.3.779<br>4 47.327<br>4 47.327<br>4 47.025<br>9 44.285<br>9 44.285   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.177<br>34.272<br>33.952   | -0.419<br>-0.421<br>-0.399<br>-0.401<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.257<br>-0.228<br>-0.238   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>3.605<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>3.636<br>3.636<br>3.710  | tsf 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 0.000 71.786 72.595   | tsf 0.405 0.000  | Isf 0.000 1 0.000 0.000 0.000 1 0.000    | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000   | MPa 0.990 9.8 8.00.990 9.8 8.00.990 9.8 8.00.990 9.8 8.00.990 9.8 8.00.990 9.8 8.00.990 9.8 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.5 9.9 9.9   | 97 9.897<br>116 30.316<br>33 59.933<br>59.933<br>61.919<br>93 48.693<br>26 38.726<br>73 32.778<br>93 39.693<br>98 33.198<br>34 33.198<br>35 14.635<br>49 18.149<br>92 27.492<br>92 27.492<br>93 27.492   |
| 56 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500 65 0.550 66 0.600 67 0.650 68 0.700 69 0.750 70 0.800 71 0.850 72 0.900   | Depth Elev Elev 1  R m d do d   | Ang of Avg Is Avg II Avg II Avg II SB1 SB1 SB1 SB1 BI BI I BI I I I I I I I I I I I I I  | S 7 8<br>6 7 8<br>8 0 0<br>8 0 0<br>7 7 8<br>7 7 8<br>7 7 7 8<br>7 7 7 8<br>6 6 6 8<br>5 6 6 8<br>5 6 6 4<br>6 6 6 4<br>6 6 6 5<br>7 7 6 6<br>6 6 6 5 | pd<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>111,358<br>111,358<br>111,358<br>111,358<br>111,358<br>111,358<br>111,358<br>111,358<br>111,358<br>111,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551  | bf   0.009   0.009   0.009   0.009   0.009   0.008   0 | 18f 16f 16f 16f 16f 16f 16f 16f 16f 16f 16   | ft   0.000   1.700   0.000   0   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>8.609<br>8.609<br>8.979<br>7.117<br>6.469<br>7.713<br>7.213  | bpf 6.598 12.126 19.978 20.640 19.978 20.640 19.477 15.490 13.111 15.877 13.279 10.667 14.635 15.265 12.099 10.997 12.855 13.112 12.263 12.008   | bpf b. 1.927 3.1 1.927 3.1 1.927 3.1 1.927 3.1 1.927 3.1 1.927 3.1 1.927 1.921   | pt   | \$\frac{8}{5}\$ isf \$2.587 \ 6.00000000000000000000000000000000000  | -0.002<br>5 0.001<br>2 0.001<br>2 0.001<br>2 0.001<br>2 0.002<br>2 0.002<br>7 0.003<br>9 0.004<br>5 0.004<br>6 0.003<br>8 0.006<br>8 0.006<br>8 0.003<br>8 0.006<br>9 0.003<br>8 0.006<br>9 0.003<br>9 0.006<br>9 0.003<br>9 0.006<br>9 0. | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.007<br>0.006<br>0.003<br>0.001<br>0.001   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.554<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.304<br>110.662  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.858 0.892 1.061 1.612 1.889 1.929 1.806 1.769 1.769  | 989.429<br>1297.883<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365<br>111.602<br>131.403<br>126.304<br>111.662   | 2.360 24.79 2.069 14.88 2.063 14.87 2.245 20.52 2.424 27.40 2.360 24.80 2.461 28.96 2.461 28.96 2.963 56.06 2.963 56.06 2.461 28.96 2.973 45.61 2.467 30.10 2.467 30.10 2.467 30.20 2.463 24.20 2.348 24.33 2.322 23.35 2.423 27.35  | 9 75.4322<br>1 89.0901<br>85.8202<br>4 75.724<br>6 66.573<br>1 59.603<br>1 63.189<br>2 56.31<br>1 0.000<br>2 0.000<br>4 0.000<br>2 0.000<br>4 4.3.779<br>4 47.327<br>1 47.025<br>4 42.905<br>4 42.905   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.177<br>34.272<br>33.952<br>33.852   | -0.419<br>-0.421<br>-0.392<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>0.000<br>0.000<br>0.000<br>-0.000<br>-0.257<br>-0.228<br>-0.216  | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>3.301<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>3.636<br>3.605<br>3.703  | tsf 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 0.000 71.786 72.595 69.865  | tsf 0.405 0.000  | bsf 0.000 1 0.000 0.000 0.000 1 0.000    | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | MPa 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8   | 9. 897<br>116 30.316<br>30.316<br>33 59.933<br>199 61.919<br>93 48.693<br>248.693<br>248.693<br>257.78<br>93 39.693<br>34 21.334<br>998 33.198<br>34 21.334<br>916.199<br>35 14.635<br>16.565<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.265<br>15.26   |
| 56 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500 65 0.550 66 0.600 67 0.650 68 0.700 69 0.750 70 0.800 71 0.850 72 0.900   | Depth Elev Elev 1  | Avg ct   Avg fs   Avg u   Avg Rt   SB1   SB1n     bif   tid   ti   %   %     6.077   0.157   -0.459   -2.853   4   8     18.615   0.2259   0.700   1.123   6   6     18.615   0.2259   0.700   1.123   6   6     18.615   0.2259   0.700   1.123   6   6     18.615   0.2259   0.700   1.123   6   6     20.289   0.446   1.370   0.552   7   0     28.899   0.446   1.370   0.552   7   0     28.899   0.446   1.370   1.391   6   6     20.377   0.441   1.060   2.191   6   8     20.127   0.441   1.060   2.191   6   6     20.334   0.389   2.200   1.300   6   6     20.334   0.389   2.200   1.300   6   6     20.334   0.389   2.200   1.300   3   4     38.898   0.390   1.000   4.340   3   4     41.144   0.338   2.240   3.033   4   5     18.881   0.259   1.020   4.353   3   4     7   11.144   0.338   2.240   3.033   4   5     18.881   0.259   1.500   1.000   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.229   0.510   1.100   6   6     19.733   0.276   1.100   1.446   6   6     19.733   0.276   1.100   1.446   6   6     19.733   0.276   1.100   1.446   6   6     19.734   0.377   1.100   1.446   6   6  | 5 7 8 8 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114.551<br>117.531<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369<br>111.369<br>111.369<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bf   | 18f  | ft 0.000 1.700 0.000 0.0   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.113<br>7.649<br>7.649<br>7.620<br>7.713<br>7.713<br>7.713<br>7.713<br>7.713   | bpf 6.598 12.126 19.978 20.640 19.978 20.640 19.477 15.490 13.111 15.877 13.279 10.667 16.199 14.635 15.265 12.099 10.997 12.855 13.112 12.263 12.008 11.480   | bpf b. b. b. bpf b. bpf b. bpf b. bpf b. b. bpf b.  | pt   2775   645.883   233   889.725   233   889.725   233   889.725   234   23 | %         tef           2.587         6.0           1.124         18.59           0.933         36.77.           0.933         37.88.           1.394         29.52           2.032         23.72           2.188         20.06           1.650         24.29           1.916         20.29           2.99         1.916           3.972         9.843           4.410         9.251           3.069         11.01.           1.643         18.65           1.655         18.65           1.463         18.65           1.463         18.65           1.463         18.65           1.27         17.43           0.837         21.743  | -0.002<br>5 0.001<br>1 0.001<br>1 0.001<br>2 0.001<br>2 0.002<br>2 0.002<br>7 0.003<br>9 0.004<br>5 0.004<br>6 0.003<br>0.004<br>6 0.003<br>3 0.006<br>6 0.004<br>6 0.001<br>8 0.001<br>8 0.001<br>5 0.002   | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.004<br>0.003<br>0.004<br>0.007<br>0.006<br>0.003<br>0.001<br>-0.001<br>-0.002<br>-0.002   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.765<br>137.155<br>94.564<br>78.338<br>75.298<br>83.395<br>118.628<br>130.403<br>125.304<br>110.662<br>102.608<br>93.126   | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.858 0.892 1.061 1.889 1.929 1.889 1.929 1.806 1.769 1.602 2.035  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.554<br>79.338<br>76.298<br>84.365<br>119.628<br>131.403<br>126.304<br>111.662<br>103.606<br>94.126  | 2.360 24.79<br>2.069 14.88<br>2.063 14.70<br>2.245 20.52<br>2.245 20.52<br>2.245 20.52<br>2.360 24.80<br>2.360 24.80<br>2.360 24.80<br>2.360 24.80<br>2.373 42.17<br>2.902 52.05<br>2.963 56.05<br>2.963 56.05<br>2.963 56.05<br>2.467 30.10<br>2.467 | 9 75.4329 1 89.0909 1 89.0909 2 85.820 4 75.724 6 66.5733 1 63.189 2 56.391 1 0.000 2 0.000 4 0.000 0 0.000 4 4 0.000 4 4 0.000 4 4 0.000 4 4 0.000 4 4 0.000 4 4 0.000 5 0.000 6 4 4 0.000 6 0.000 6 4 4 0.000 7 0.0000 7 0.000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.00000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.0000 7 0.000  | deg<br>0.000<br>33.898<br>37.154<br>37.315<br>36.162<br>35.068<br>34.3271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>34.4177<br>34.272<br>33.952<br>33.852<br>33.852<br>33.852<br>34.526  | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>0.000<br>0.000<br>0.000<br>0.000<br>-0.257<br>-0.228<br>-0.228<br>-0.228<br>-0.228<br>-0.228<br>-0.228   | 0.000 3.727 2.680 2.687 2.981 3.341 3.605 3.301 3.585 0.000 0.000 0.000 0.000 0.000 3.636 3.606 3.710 3.743 0.000  | tsf 0.000 69.412 98.883 10.98 88.9179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 71.786 72.595 69.015 0.000 74.775  | tsf  | sf 0.000 1 0.000 0   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8   | 97 9.897<br>116 30.316<br>33 59.933<br>119 61.919<br>193 48.693<br>26 38.726<br>778 32.778<br>39.33 39.693<br>39.693<br>39.693<br>34 21.334<br>99 16.199<br>16.199<br>16.199<br>16.199<br>18.149<br>19.22<br>27.482<br>37 32.137<br>30 32.780<br>30 32.780<br>30 39.693  |
| 56   0.100   | Depth Elev Elev 1  1 m ft 0.050 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.023 -0.1564  0.024 -0.1564  0.025 -0.1 | Ang ct Ang fs Ang u Ang R5 SB1   | 5 7 8 8 0 0 0 8 8 0 0 0 0 0 0 0 0 0 0 0 0   | pd 114.551 114.551 117.33 114.551 114.   | bf   | tsf  | R  | bpf 3.881 7.133 11.752 12.141 11.457 9.112 7.713 9.339 7.811 6.275 9.529 8.609 8.979 7.512 7.113 7.213 7.064 6.753 8.134 7.320   | bpf<br>6.598<br>19.978<br>20.640<br>19.477<br>15.490<br>13.111<br>15.877<br>13.279<br>10.667<br>16.199<br>14.595<br>15.265<br>12.099<br>10.997<br>12.855<br>13.112<br>12.099<br>10.997<br>12.855<br>13.112<br>12.098<br>13.112<br>12.088<br>13.1140<br>13.1140<br>14.091<br>13.1140<br>14.091<br>14.091<br>15.091<br>16.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17.091<br>17. | bpf b. b. bpf b. bpf b. bpf b. bpf b. bpf b. b. bpf   | pf  275  645.883  389.7255  389.7255  389.7255  389.7255  389.7256 | %         lef           2.587         6.0           1.24         18.59           1.24         18.59           1.933         37.68           1.334         29.33           2.022         23.72           2.198         20.06           1.660         24.22           1.916         20.29           2.999         13.0           3.972         9.843           4.410         9.251           3.669         11.164           1.622         19.36           1.169         19.85           1.485         18.65           1.485         18.65           1.485         18.67           1.485         18.67           1.227         17.43           0.837         21.22           0.770         22.12  | -0.002 5 0.001 2 0.001 1 0.001 1 0.001 2 0.002 7 0.003 9 0.004 5 0.004 6 0.003 3 0.006 5 0.003 6 0.003   | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.002  | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.554<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.304<br>110.662<br>106.625<br>106.825  | MPa 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.850 0.892 1.061 1.612 1.818 1.929 1.806 1.769 1.692 2.035 2.200  | 989.429<br>1297.883<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365<br>119.628<br>131.403<br>126.304<br>111.662<br>103.608<br>94.126  | 2.380 24.79 2.069 14.88 2.069 14.88 2.069 14.88 2.069 14.88 2.052 2.246 20.52 2.246 20.52 2.246 20.52 2.360 24.80 2.360 24.80 2.360 24.80 2.372 2.461 2.896 2.8960 55.18 2.487 2.902 2.902 2.903 55.18 2.487   | 9 75.4329<br>1 89.0909<br>4 75.7246<br>5 66.5737<br>1 63.1881<br>1 63.1881<br>1 0.000<br>2 56.391<br>1 0.000<br>4 0.000<br>4 0.000<br>4 43.779<br>4 47.025<br>9 44.285<br>4 42.907<br>9 40.881<br>9 44.881<br>4 47.025<br>4 47.025<br>4 42.907<br>9 40.881<br>4 47.025<br>4 42.907<br>9 40.881<br>4 47.025<br>4 42.907<br>9 40.881<br>4 47.025<br>4 42.907  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.272<br>33.952<br>33.852<br>33.852<br>33.852<br>34.893<br>34.526   | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.401<br>-0.359<br>-0.351<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>-0.257<br>-0.228<br>-0.228<br>-0.228<br>-0.228<br>-0.228<br>-0.200<br>-0.173   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.505<br>3.301<br>3.585<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>3.636<br>3.605<br>3.743<br>0.000<br>3.543  | tsf 0.000 69.412 98.683 100.29 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 0.000 0.000 0.000 71.786 72.595 69.815 0.000 74.775 77.947   | tsf  | sf 0.000 1 0.000 0   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa 9.8 3.3 0.32 30.5 30.5 99.8 3.8 0.5 99.8 3.8 0.5 99.8 3.9 9.9 5.9 9.9 4.8 6.1 92 6.1 15.2 6.1 92 6.1 15.2 6.1 9.2 6.1 15.2 6.1 9.2 6.1 15.2 6.1 9.2 6.1 15.2 6.1 9.2 6.1 9.2 6.1 15.2 6.1 9.2 6.1 | 77 9 887<br>116 30.316<br>33 59 933<br>137 59 933<br>148 693<br>25 88 726<br>26 38 726<br>27 8 22 776<br>28 726<br>29 27 492<br>29 27 492<br>29 27 492<br>29 27 492<br>29 27 492<br>20 20 20 20 20 20 20 20 20 20 20 20 20 2   |
| 56 0.000 57 0.150 58 0.250 59 0.250 59 0.250 61 0.350 62 0.450 63 0.450 64 0.500 65 0.550 66 0.600 67 0.550 68 0.750 68 0.750 70 0.800 71 0.850 72 0.950 73 1.550 76 1.100 77 1.150  | Depth   Elev     | Ang of   | 5 7 8 8 6 7 8 8 0 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0   | pd<br>114.551<br>114.551<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>111.369<br>111.369<br>111.369<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bf   0.009   0   0.019   0   0.028   0   0.028   0   0.028   0   0.028   0   0.038   0   0.048   0   0.057   0   0.057   0   0.056   0   0.076   0   0.056   0   0.076   0   0.056   0   0.055   0   0 | tsf  | R  | bpf<br>3.81<br>3.81<br>3.81<br>3.81<br>3.81<br>17.73<br>11.752<br>12.141<br>11.457<br>9.33<br>9.33<br>7.811<br>6.275<br>9.529<br>8.699<br>8.699<br>7.117<br>6.469<br>7.713<br>7.064<br>6.753<br>8.31<br>7.213<br>7.064<br>6.753<br>8.31<br>7.213<br>7.064<br>6.753<br>8.314<br>7.320<br>7.831  | bpf 6.598 12.126 19.978 20.640 19.978 20.640 19.477 15.490 13.111 15.877 13.279 10.667 16.199 14.695 15.265 12.099 10.997 12.855 13.112 2.263 12.008 11.480 13.828 12.444 13.312   | bpf b. 1927 3. 4.308 7.7. 7.537 12. 7.537 12. 7.537 12. 7.538 133. 6.581 11. 5.666 9. 4.974 8. 5.540 9. 4.974 8. 3.3036 5. 2.2847 4. 4.940 8. 3.1938 5. 4.442 7. 4.542 7. 4.483 7. 4.483 7. 4.483 7. 4.494 7. 4.541 7. 4.494 8.  | pf   278   | % isf \$2.587 & isf \$1.598 & isf \$1.587 & isf \$1.588 & isf  | -0.002<br>5 0.001<br>2 0.001<br>2 0.001<br>1 0.002<br>2 0.001<br>1 0.002<br>7 0.003<br>6 0.002<br>7 0.003<br>6 0.004<br>6 0.004<br>6 0.004<br>6 0.004<br>7 0.003<br>8 0.001<br>8 0.001<br>8 0.001<br>8 0.001<br>9 0.002<br>9 0.002<br>9 0.002<br>9 0.002<br>9 0.002<br>9 0.002<br>9 0.003<br>9 0. | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.007<br>0.006<br>0.003<br>0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.002  | 98.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.765<br>94.564<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.306<br>106.625<br>102.608<br>93.126<br>106.825<br>110.159  | MPa 0.584 1.781 3.521 3.638 2.850 2.274 1.925 2.329 1.946 0.852 1.250 0.950 0.852 1.612 1.889 1.925 1.612 1.889 1.929 2.035 2.200 2.353  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365<br>119.628<br>131.403<br>111.662<br>103.608<br>94.126<br>107.825<br>111.159   | 2 380 24.78 2089 14.88 2089 24.80 2089 14.88 2089 24.80 2089 24.80 2089 24.80 2089 24.80 2089 24.80 28   | 9 75.432<br>1 89.090<br>2 85.8202<br>4 75.724<br>6 66.573<br>1 59.603<br>1 63.189<br>2 56.391<br>1 60.000<br>4 0.000<br>4 0.000<br>4 47.327<br>1 47.025<br>9 40.881<br>4 42.907<br>9 40.881<br>4 45.5151<br>4 47.042<br>7 48.320  | deg<br>0.00<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.177<br>34.272<br>33.952<br>33.852<br>33.852<br>34.893<br>35.186  | -0.419<br>-0.421<br>-0.399<br>-0.403<br>-0.422<br>-0.401<br>-0.359<br>-0.351<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.257<br>-0.228<br>-0.238<br>-0.216<br>-0.200<br>-0.177   | 0.000<br>3.727<br>2.680<br>2.637<br>2.981<br>3.341<br>3.605<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>3.606<br>3.710<br>3.743<br>0.000<br>3.521<br>3.351   | tsf 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 0.000 71.786 72.593 69.866 69.015 0.000 74.775 77.947 80.752  | tsf  | tef 0.000 1 0.   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa 0 9.8 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.4 3.4 3.2 1.1 1.526 1.5 1.1 1.526 1.5 1.3 2.1 3.2 1.3 3.2 1.3 3.2 1.3 3.2 1.3 3.2 1.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3   | 77 9 897<br>16 30 316<br>33 59 33<br>19 61 919<br>33 48 683<br>19 61 919<br>34 48 683<br>35 78 88 88 88 88 88 88 88 88 88 88 88 88   |
| 56 0.100 57 0.150 58 0.250 58 0.250 61 0.350 61 0.350 62 0.450 63 0.450 64 0.550 65 0.550 66 0.600 67 0.650 68 0.750 70 0.650 77 0.650 77 0.650 77 0.750 77 1.150 78 1.250 78 1.250 78 1.250 78 1.250 79 1.250   | Depth   Elev     | Ang of   | S 7 8 8 0 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 0                       | pd<br>114,551<br>114,551<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111,369<br>111 | bf   | 1sf  | \$\frac{1}{6}\$ \$\text{\$\tex{\$\text{\$\texitex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$ | bpf 3.8f1 7.133 11.752 12.141 11.457 9.152 7.713 9.339 8.609 8.979 7.117 6.485 7.552 7.713 7.064 6.753 8.134 7.320 7.831 8.552 9.338   | bpf 6,598 12,126 19.978 20,640 19.978 20,640 19.477 15.499 13.111 15.877 10.667 16.199 14.635 15.299 10.997 12.855 12.099 10.997 12.855 12.098 11.480 13.828 12.444 13.312 14.555 14.555 14.555 14.555   | bpf b, 1, 1, 2, 2, 3, 3, 3, 4, 3, 3, 3, 5, 6, 5, 6, 1, 1, 1, 2, 1, 1, 1, 2, 1, 1, 2, 1, 1, 1, 2, 1, 1, 1, 2, 1, 1, 1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,  | of pf   pf   pf   pf   pf   pf   pf   pf   | 5. If 287 Co. 268 Co.  | -0.002 5 0.001 2 0.001 1 0.001 1 0.001 2 0.001 1 0.001 5 0.002 7 0.004 5 0.004 6 0.004 6 0.003 8 0.005 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001 8 0.001   | -0.002<br>-0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.554<br>75.298<br>83.365<br>130.403<br>125.304<br>110.662<br>102.608<br>93.126<br>106.825<br>110.159<br>111.886   | MPa 0.584  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>95.564<br>79.338<br>76.298<br>84.365<br>119.628<br>131.403<br>1126.304<br>111.662<br>103.608<br>94.126<br>107.825<br>111.159<br>113.606  | 2.350 24.79 24.76 25.25 24.25  | 9 75.4329 9 75.4329 1 89.0909 1 89.0909 1 89.0909 1 66.5731 1 63.1892 2 6.3911 1 63.1892 2 6.0000 2 0.0000 4 0.0000 4 0.0000 4 4.7.327 1 47.0259 4 42.907 1 44.2859 4 42.907 7 48.32020 7 48.32020 7 48.32020 7 48.32020 7 50.2531  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.327<br>35.186<br>34.327<br>33.318<br>34.177<br>33.352<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>34.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36.852<br>36 | -0.419 -0.421 -0.399 -0.403 -0.402 -0.401 -0.359 -0.351 -0.000 -0.000 -0.000 -0.000 -0.258 -0.216 -0.238 -0.228 -0.200 -0.173 -0.178 -0.178  | 0.000 3.727 2.680 2.637 2.981 3.341 3.606 3.301 3.585 0.000 0.000 0.000 0.000 0.000 3.638 3.606 3.710 3.743 0.000 3.521 3.399 3.292 3.150  | tef 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 | 18f 0.405 0.000  | tef  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa (0.990 9.8) 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 30.3  | 77 9.897<br>16 30.316<br>33 59.333<br>19 61.919<br>33 48.633<br>25 33.726<br>35 726<br>36 727<br>36 727<br>37 38 72<br>38 73<br>39 161.99<br>35 14.635<br>35 14.635<br>35 14.635<br>36 14.635<br>37 32 137<br>37 32 137<br>30 32 780<br>30 30 780<br>30 32 780<br>30 3   |
| 56   0.100   | Depth Elev Elev 1  8 m ft m do 164 do 165 do | Ang et Avg ls Avg u Vay R1 SB1 SB1 SB1 ls ls ls ls ls R % S SB1 SB1 SB1 SB1 SB1 SB1 SB1 SB1 SB1 S  | S 7 8 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114,551<br>114,551<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>111,369<br>111,369<br>111,369<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114 | bf   | tid tid   tid   1009    | R  | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.699<br>8.799<br>7.562<br>7.713<br>7.213<br>7.213<br>7.320<br>7.831<br>8.562<br>9.339<br>8.599<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8   | bpf 6.598 19.978 20.640 19.978 20.640 19.477 15.490 13.111 15.877 10.667 16.199 14.635 12.099 10.997 12.855 12.099 13.112 12.263 12.008 11.480 13.828 12.444 13.312 14.555 15.875 17.053   | bpf b 1,1927 3. 1,4308 7. 7,537 12,17,768 13,18 6,581 11,1 6,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,4974 8. 1,4974 8. 1,4977 9. 1,4976 8. 1,5774  | pf   | 5 st   12-87   16-86   11-124   18-59-58   18-59-58   11-124   18-59-58   11-124   18-59-58   11-124   18-59-58   11-124   18-59-58   13-58  | -0.002 5 0.001 1 0.001 2 0.001 1 0.001 2 0.001 1 0.001 5 0.002 7 0.004 5 0.004 6 0.003 8 0.004 8 0.003 8 0.006 6 0.003 8 0.006 6 0.003 6 0.006 6 0.006 6 0.006 6 0.006 6 0.007 7 0.007 7 0.007 7 0.007   | -0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.003<br>-0.004<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>302.143<br>227.766<br>137.155<br>94.564<br>78.338<br>75.298<br>83.365<br>118.628<br>102.608<br>93.126<br>102.608<br>93.126<br>105.825<br>110.6825<br>111.686<br>117.886<br>123.331<br>127.934  | MPa 0.584 0.584 1.781 1.3521 1.3521 1.3521 1.925 2.329 1.946 1.250 0.858 0.858 0.858 0.858 0.858 0.858 0.250 1.661 1.662 2.035 2.200 1.506 1.769 1.506 1.769 1.507 2.2035 2.200 2.353 2.572 2.805 3.013 2.881  | 989.429 1297.893 1297.893 1297.893 628.612 417.223 303.143 321.241 238.766 138.156 95.554 79.338 76.298 84.365 119.623 126.304 111.1562 111.1562 111.1562 111.1562 111.1562 111.1562 111.1562   | 2.350 24.75 24.75 25.25  | 9 75.4329 9 75.4329 1 83.0901 1 83.0901 2 85.8202 4 75.7244 4 75.7242 1 0.00000 1 0.00000 1 0.00000 1 0.000000 1 0.0000000000  | deg<br>0.003<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.272<br>33.852<br>33.852<br>33.852<br>34.526<br>34.526<br>35.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642 | -0.419 -0.421 -0.399 -0.403 -0.401 -0.359 -0.401 -0.359 -0.000 -0.000 -0.000 -0.000 -0.257 -0.228 -0.216 -0.200 -0.173 -0.178 -0.186 -0.179  | 0.000 3.727 2.680 2.537 2.981 3.341 3.605 3.301 3.585 0.000 0.000 0.000 0.000 0.000 0.000 3.636 3.710 3.743 0.000 3.521 3.399 3.292 3.150 3.015 2.907  | tef 0.000 69.412 98.683 100.292 89.179 79.459 72.593 80.496 73.114 0.000 0.000 0.000 0.000 0.000 0.000 0.000 71.786 72.595 69.866 69.015 0.000 74.775 77.947 80.752 84.504 88.215 91.350   | 181 0.405 0.000 0. | tef  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | MPa 0 90 9.8 3.032 30.030 30.3 3.032 30.0 30.0 30.0   | 77 9.897<br>77 9.897<br>16 30.316<br>33 59.933<br>33 59.933<br>33 59.933<br>35 9.933<br>36 9.933<br>37 9.933<br>38 9.933<br>38 9.833<br>38   |
| 56 0.000 57 0.159 58 0.200 58 0.200 60 0.300 60 0.300 60 0.450 62 0.450 65 0.550 66 0.600 66 0.600 67 0.650 68 0.750 77 0.850 77 0.850 77 1.150 78 1.250 78 1.250 79 1.255 80 1.390 81 1.390 81 1.390  | Depth Elev Elev 1  R m d de d   | Ang et Avg la Avg la Vag R SB1   | S 7 8 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>111.360<br>111.360<br>111.360<br>111.360<br>111.361<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bf   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0 | 187 187 187 187 187 187 187 187 187 187  | R  | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.699<br>8.799<br>7.562<br>7.713<br>7.213<br>7.213<br>7.320<br>7.831<br>8.562<br>9.339<br>8.599<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8.758<br>8   | bpf 6.598 19.978 20.640 19.978 20.640 19.477 15.490 13.111 15.877 10.667 16.199 14.635 12.099 10.997 12.855 12.099 13.112 12.263 12.008 11.480 13.828 12.444 13.312 14.555 15.875 17.053   | bpf b 1,1927 3. 1,4308 7. 7,537 12,17,768 13,18 6,581 11,1 6,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,5666 9. 1,4974 8. 1,4974 8. 1,4974 8. 1,4977 9. 1,4976 8. 1,5774  | pf   | 5 st   12-87   16-86   11-124   18-59-58   18-59-58   11-124   18-59-58   11-124   18-59-58   11-124   18-59-58   11-124   18-59-58   13-58  | -0.002 5 0.001 1 0.001 2 0.001 1 0.001 2 0.001 1 0.001 5 0.002 7 0.002 7 0.004 5 0.004 6 0.003 8 0.004 8 0.003 8 0.005 8 0.001 8 0.006 9 0.006 9 0.007   | -0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.003<br>-0.004<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>302.143<br>227.766<br>137.155<br>94.564<br>78.338<br>75.298<br>83.365<br>118.628<br>102.608<br>93.126<br>102.608<br>93.126<br>105.825<br>110.6825<br>111.686<br>117.886<br>123.331<br>127.934  | MPa 0.584 0.584 1.781 1.3521 1.3521 1.3521 1.925 2.329 1.946 1.250 0.858 0.858 0.858 0.858 0.858 0.858 0.250 1.661 1.662 2.035 2.200 1.506 1.769 1.506 1.769 1.507 2.2035 2.200 2.353 2.572 2.805 3.013 2.881  | 989.429 1297.893 1297.893 1297.893 628.612 417.223 303.143 321.241 238.766 138.156 95.554 79.338 76.298 84.365 119.623 126.304 111.1562 111.1562 111.1562 111.1562 111.1562 111.1562 111.1562   | 2.350 24.75 24.75 25.25  | 9 75.4329 9 75.4329 1 83.0901 1 83.0901 2 85.8202 4 75.7244 4 75.7242 1 0.00000 1 0.00000 1 0.00000 1 0.000000 1 0.0000000000  | deg<br>0.003<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.272<br>33.852<br>33.852<br>33.852<br>34.526<br>34.526<br>35.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642 | -0.419 -0.421 -0.399 -0.403 -0.401 -0.359 -0.401 -0.359 -0.000 -0.000 -0.000 -0.000 -0.257 -0.228 -0.216 -0.200 -0.173 -0.178 -0.186 -0.179  | 0.000 3.727 2.680 2.537 2.981 3.341 3.605 3.301 3.585 0.000 0.000 0.000 0.000 0.000 0.000 3.636 3.710 3.743 0.000 3.521 3.399 3.292 3.150 3.015 2.907  | tef 0.000 69.412 98.683 100.292 89.179 79.459 72.593 80.496 73.114 0.000 0.000 0.000 0.000 0.000 0.000 0.000 71.786 72.595 69.866 69.015 0.000 74.775 77.947 80.752 84.504 88.215 91.350   | 181 0.405 0.000 0. | tef  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | MPa 0 90 9.8 3.032 30.030 30.3 3.032 30.0 30.0 30.0   | 77 9.897<br>77 9.897<br>16 30.316<br>33 59.933<br>33 59.933<br>33 59.933<br>35 9.933<br>36 9.933<br>37 9.933<br>38 9.933<br>38 9.833<br>38   |
| 56 0.000 57 0.155 58 0.200 58 0.200 60 0.300 61 0.300 62 0.400 63 0.455 64 0.500 65 0.600 66 0.500 66 0.500 67 0.650 67 0.650 68 0.700 68 0.700 77 1.050 77 1.050 78 1.000 78 1.000 78 1.200 78 1.200 78 1.300 88 1.300 88 1.300 88 1.300 88 1.300 88 1.400  | Depth Elev Elev 1  | Ang ct Ang fs Ang u Ang R SB1  | 5 7 8 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | tef  | sf         bif           0099         0,000           0,0009         0,000           0,0019         0,000           0,003         0,000           0,003         0,000           0,003         0,000           0,003         0,000           0,007         0,000           0,006         0,000           0,005         0,000           0,005         0,000           0,005         0,000           1,004         0,005           1,004         0,000           1,004         0,000           1,154         0,000           1,160         0,000           1,160         0,000           2,27         0,000           2,276         0,000           2,276         0,000           2,226         0,000           2,226         0,000           2,226         0,000           2,226         0,000           2,226         0,000           2,226         0,000           2,226         0,000           2,226         0,000   | R 0.0000 1.7000 0.000 0.0000 1.7000 0.000 0.0000 1.7000 0.000 0.0000 1.7000 0.0000 0.0000 1.7000 0.0000 0.0000 1.7000  | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.457<br>9.112<br>7.713<br>9.139<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117<br>6.489<br>7.713<br>7.064<br>6.753<br>7.713<br>7.064<br>6.753<br>8.134<br>7.330<br>7.831<br>8.562<br>9.338<br>9.338<br>10.031<br>8.562<br>9.338<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.338<br>10.031<br>8.562<br>9.358<br>9.358<br>10.031<br>8.562<br>9.358<br>9.358<br>10.031<br>8.562<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.3   | bpf 6 598 12.126 19.978 12.126 19.978 12.126 19.978 19.978 19.978 19.978 19.978 19.978 19.978 19.978 19.978 19.978 19.979 19.997   | bef bbf bloom bbf bef bbf bbf bbf bbf bbf bbf bbf bbf  | representation of the control of the | \$\frac{1}{2}\text{ et al.} \frac{1}{2}\text{ et al.} \frac{1}{2}  | 0.002<br>5   | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.004<br>0.004<br>0.004<br>0.004<br>0.005<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001   | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>320.241<br>237.766<br>137.156<br>94.554<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.304<br>102.608<br>93.126<br>102.608<br>103.126<br>104.608<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>112.606<br>11 | MPa 0.584 0.584 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.892 1.061 1.612 1.889 1.925 1.806 1.769 1.805 2.035 2.200 2.353 2.572 2.805 3.013 2.881 1.903 1.318  | 989.429<br>1297.893<br>1000.035<br>628.612<br>417.223<br>303.143<br>321.241<br>238.766<br>138.156<br>76.298<br>84.365<br>111.662<br>103.608<br>94.126<br>107.825<br>111.1692<br>113.806<br>111.806<br>113.806   | 24.77.22.250 (24.77.22.250) (24.77.2   | 9 75.4329 9 75.4329 12 85.8209 12 85.8209 14 75.7244 15 96.0331 15 96.0331 16 96.5737 17 96.0301 17 96.0301 18 96.0301 19 96.0301 10  | deg 0.000 33.898 37.154 37.310 36.162 35.068 34.271 35.186 34.332 0.000 0.000 0.000 0.000 33.431 34.177 34.272 33.852 33.852 33.852 33.852 33.853 35.215 36.256 36.398 36.183 34.199 0.000   | -0.419 -0.421 -0.399 -0.403 -0.401 -0.359 -0.401 -0.359 -0.351 -0.000 -0.000 -0.000 -0.000 -0.000 -0.228 -0.216 -0.238 -0.226 -0.216 -0.177 -0.173 -0.178 -0.178 -0.179 -0.223 -0.2241   | 0.000 3.727 2.680 2.637 2.981 3.341 3.605 3.301 3.585 0.000 0.000 0.000 0.000 0.000 3.505 3.743 0.000 3.5743 3.999 3.292 3.150 3.015 2.997 3.629   | tef 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 71.786 72.593 80.496 69.015 0.000 74.775 73.114 0.000 0.000 71.786 72.595 88.686 69.015 0.000 88.215 91.350 88.215 91.350 88.215 91.350 88.373 71.970 0.000   | tsf  | tef  | 10.000    | MPa 0 990 9.8 3.032 30.3 30.3 30.3 30.3 30.3 30.3 30.   | 37 9,887<br>163 36,983<br>163 36,983<br>179 61,919<br>190 61,919<br>191 61,919<br>192 72 38,726<br>193 37,926<br>194 81,927<br>195 16,919<br>195 1   |
| 56 0.000 57 0.155 58 0.200 58 0.200 60 0.300 61 0.300 62 0.400 63 0.455 64 0.500 66 0.500 66 0.500 67 0.650 68 0.700 69 0.707 70 0.800 77 0.800 77 0.800 77 0.800 78 1.000 79 1.000 78 1.000 78 1.000 78 1.000 78 1.200 78 1.300 88 1.300 88 1.300 88 1.300 88 1.300   | Depth   Elev   Elev   Elev   R   R   M   M   | Ang et Ang is An | 5 7 8 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bf   0.009   0 | isf         hsf           0.009         0.000           0.009         0.000           0.009         0.000           0.003         0.000           0.003         0.000           0.003         0.000           0.003         0.000           0.007         0.000           0.006         0.000           0.008         0.000           0.008         0.000           0.009         0.000           0.005         0.000           1.004         0.000           1.11         0.000           1.15         0.000           1.16         0.000           1.17         0.000           1.17         0.000           1.26         0.000           1.27         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000           1.22         0.000<  | R 0.0000 1.7000 0.000 0.0000 1.7000 0.000 0.0000 1.7000 0.0000   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.452<br>7.713<br>9.132<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117<br>6.489<br>7.562<br>7.713<br>7.064<br>6.753<br>8.134<br>7.233<br>8.602<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>9.338<br>10.031<br>8.502<br>8.502<br>9.338<br>10.031<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.502<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.503<br>8.50 | bpf 6 598 12.126 19.978 12.126 19.978   | bef bbf bbf bbf bbf bbf bbf bbf bbf bbf  | pt   96   97   97   97   97   97   97   97   | \$\frac{1}{2}\text{287}\text{ 0.606}\$ \$1124\text{ 18.596}\$ \$1124\text{ 18.596}\$ \$1083\text{ 39.776}\$ \$0.653\text{ 39.776}\$ \$0.653\text{ 39.776}\$ \$0.653\text{ 39.776}\$ \$0.653\text{ 39.776}\$ \$1796\text{ 20.007}\$ \$2.198\text{ 20.006}\$ \$2.1092\text{ 29.776}\$ \$2.198\text{ 20.006}\$ \$3.972\text{ 29.999}\$ \$1.5000\text{ 20.007}\$ \$3.972\text{ 29.999}\$ \$1.5000\text{ 10.0076}\$ \$1.5000\text{ 10.0076}\$ \$1.5000\text{ 10.0076}\$ \$1.5000\text{ 10.0076}\$ \$1.643\text{ 16.776}\$ \$  | 0.002<br>5   | -0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 647.379<br>988.428<br>1296.892<br>999.034<br>627.612<br>416.223<br>302.143<br>302.143<br>137.155<br>94.554<br>78.338<br>75.298<br>83.365<br>118.628<br>130.403<br>125.394<br>110.662<br>102.608<br>93.126<br>108.825<br>110.168<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>117.886<br>11 | MPa 0.82 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.852 1.061 1.612 1.889 1.892 1.806 1.763 1.612 2.805 2.203 | 989.429 1297.893 1000.035 628.612 147.223 303.143 321.241 338.766 138.156 95.564 95.564 95.564 119.628 113.606  | 2.47 (2.10) (2.1   | 9 75.4329<br>9 75.4329<br>1 89.0900<br>2 85.8220<br>4 75.7244<br>7 75.7244<br>1 63.1889<br>1 63.1889<br>2 66.573<br>1 59.6033<br>1 59.6033<br>1 0.000<br>4 0.000<br>4 0.000<br>4 0.000<br>4 4 37.794<br>4 47.327<br>4 47.024<br>5 6.5175<br>6 5 1.775<br>6 5 1.775<br>7 5 1.775<br>6 5 1.775<br>7 5 1.775<br>6 5 1.775<br>7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7  | deg<br>0.000<br>33.898<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.272<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.853<br>34.313<br>34.313<br>35.186<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642<br>36.642 | -0.419 -0.421 -0.399 -0.403 -0.401 -0.351 -0.000 -0.000 -0.000 -0.000 -0.000 -0.228 -0.216 -0.228 -0.220 -0.177 -0.173 -0.173 -0.186 -0.171 -0.179 -0.223 -0.221 -0.000 -0.000   | 0.000 3.727 2.687 2.687 2.981 3.606 3.331 3.585 0.000 0.000 0.000 0.000 3.536 3.710 3.740 3.743 3.752 3.3521 3.3521 3.3521 3.3536 3.770 3.773 3.773 3.773 3.773 3.773 3.773 3.773 3.773  | tsf 0.000 69.412 98.683 100.292 89.179 79.469 72.593 80.496 73.114 0.000 0.000 0.000 0.000 0.000 0.000 0.000 71.786 72.595 69.866 69.015 0.000 74.775 77.347 77.547 77.547 91.550 88.215 91.550 89.373 71.970 0.000 0.000  | tsf 0.405 0.000 0. | tef  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000   | MPa  MPa  MPa  MPa  MPa  MPa  MPa  MPa  | 77 9.897<br>16 30.316<br>33 59.933<br>19 61.919<br>36 48.693<br>26 38.726<br>37 32.778<br>33 36.633<br>35 36.33<br>36 33<br>35 36.33<br>36 33<br>36 33<br>36 33<br>37 32<br>37 32 |
| 56 0.100 57 0.155 58 0.200 58 0.200 60 0.300 61 0.300 62 0.400 63 0.456 64 0.500 66 0.600 67 0.660 68 0.700 68 0.777 77 0.800 77 0.800 77 1.500 77 1.500 78 1.500 78 1.500 88 1.500 88 1.500   | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R   | Ang of   | 5 7 8 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,735<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551   | tef  | tef tel  | R 0.0000 1.700 0.000 0.0000 1.700 0.000 0.0000 1.700 0.000 0.0000 1.700 0.000 0.0000 1.700 0.000 0.0000 1.700   | bpf<br>3.881<br>7.133<br>11.752<br>12.141<br>11.752<br>12.141<br>11.752<br>9.112<br>7.713<br>9.339<br>7.811<br>6.275<br>9.529<br>8.609<br>8.979<br>7.117<br>6.469<br>7.713<br>7.064<br>6.753<br>8.134<br>7.213<br>7.084<br>6.753<br>8.134<br>7.320<br>7.831<br>8.562<br>9.338<br>10.031<br>9.590<br>6.574<br>6.533<br>6.574<br>6.533<br>6.574<br>6.533<br>6.533<br>6.533<br>6.533<br>6.533<br>6.533<br>6.533<br>6.533<br>6.554<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.553<br>6.554<br>6.553<br>6.554<br>6.553<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554<br>6.554   | bpf 6 598 12 126 119 978 12 126 119 978 120 126 119 978 120 540 119 115 490 115 490 115 490 115 490 115 490 115 490 115 490 115 577 115 277 11   | bpf bbf bloom bbf bbf bbf bbf bbf bbf bbf bbf bbf bb   | pri 275 645.883.20 389.725.20 389 | \$\frac{1}{2}\text{S}\$ \text{ if } \$\frac{1}{2}\text{S}\$ \text{ of } \$\frac{1}{2}\text{ of } \$\frac{1}{2}\text{S}\$ \text{ of } \$\frac{1}{2}\text{ of } \$\frac{1}{2}\text{S}\$ \text{ of } \$\frac{1}{2}\text{ of } \$\fr   | 5 -0.002<br>2 0.001<br>2 0.001<br>2 0.001<br>2 0.001<br>3 0.002<br>5 0.002<br>7 0.003<br>6 0.004<br>6 0.003<br>6 0.004<br>6 0.003<br>7 0.003<br>8 0.004<br>8 0.003<br>8 0.004<br>9 0.003<br>9  | -0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.003<br>-0.003<br>-0.003<br>-0.001<br>-0.001<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.002<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0.001<br>-0   | 647.379 988.428 1296.892 999.034 627.612 416.223 302.143 320.241 237.766 137.156 94.564 78.338 75.288 83.1628 130.403 125.304 110.662 102.608 93.126 106.825 110.159 112.606 117.886 117.886 117.896   | MPa 0.524 1.781 3.521 3.638 2.860 2.274 1.925 2.329 1.946 1.250 0.950 0.852 1.061 1.612 1.889 1.612 1.889 1.612 2.203 2.203 2.572 2.805 2.301 3.250 2.301 3.250 3.318 1.190 3.318 1.318 1.318 1.318 1.309 2.052  | 989.429 1297.893 1000.035 628.612 417.223 303.143 321.241 338.766 138.156 95.564 99.338 76.298 84.365 131.403 111.662 103.608 94.126 107.825 111.159 113.606 118.886 118.628  | 2.350 24.75  | 9 75.4328<br>9 75.4328<br>1 85.8202<br>4 75.7244<br>6 66.5737<br>1 59.603<br>1 63.1889<br>2 56.391<br>1 0.000<br>4 0.000<br>4 0.000<br>4 0.000<br>4 4 0.327<br>4 47.327<br>1 47.0258<br>4 42.907<br>4 45.5151<br>4 45.5151<br>5 3.6161<br>6 5 3.717<br>7 48.3202<br>6 5 3.6161<br>7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>36.068<br>34.332<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.177<br>34.272<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>35.852<br>36.853<br>36.853<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183<br>36.183  | -0.419 -0.421 -0.399 -0.403 -0.422 -0.401 -0.359 -0.351 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.257 -0.228 -0.216 -0.238 -0.200 -0.177 -0.173 -0.186 -0.171 -0.179 -0.223 -0.221 -0.221   | 0.000<br>3.727<br>2.857<br>2.851<br>3.005<br>3.359<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000                  | tsf 0.000 69.412 98.683 100.292 88.179 79.469 72.593 60.496 0.000  | tsf 0.405 0.000 0. | Isf   0.000   1.000      | 10.000    | MPa 0.990 9.8 3.032 30.3032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.04 3.04 3.04 3.04 3.04 3.04 3.04  | 77 9.897<br>16 30.316<br>33 59.933<br>19 61.919<br>30 48.693<br>26 38.726<br>30 38.63<br>30 48.693<br>30 48.693<br>30 48.693<br>30 48.693<br>30 48.693<br>30 39.693<br>30 39.693<br>30 14.693<br>30   |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 61 0.350 62 0.400 63 0.600 66 0.500 67 0.500 68 0.700 69 0.750 77 0.650 77 0.650 77 0.650 77 0.500 78 1.200 78 1.200 78 1.300 88 1.300 88 1.300 88 1.500 88 1.500 88 1.500  | Depth   Elev   Elev   Elev   R   | Avg et   | 5 7 8 8 6 7 7 8 8 8 0 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0 0 8 8 0   | pd<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551   | tef  | tef tef tef 1900 1900 1900 1900 1900 1900 1900 190   | R 0.0000 1.700  | bpf 3.881 7.133 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.152  | bpf 6 6.598 12.126 119.978 12.008 11.1208 119.278 12.008 11.14.555 15.277 15.299 12.15 12.008 11   | bpf bbf bloom bbf bbf bbf bbf bbf bbf bbf bbf bbf bb   | pri   19   | \$\frac{1}{5}\$ if \$\frac  | 5 -0.002<br>5 -0.001<br>2 -0.001<br>2 -0.001<br>3 -0.002<br>7 -0.003<br>9 -0.004<br>5 -0.004<br>5 -0.003<br>0 -0.003<br>0 -0.003<br>0 -0.004<br>0 -0.003<br>0 -0.0   | -0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.004<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.003<br>0.004<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 647.379 988.428 1296.892 999.034 627.612 416.223 302.241 237.786 137.155 94.564 78.338 75.238 130.403 125.304 110.662 131.2068 13   | MPa 0.54 MPa 0.14 MPa 0.15 MPa | 989.429 1297.893 1000.035 628.612 417.223 303.143 321.241 323.8766 138.156 138.156 138.156 138.156 138.156 138.156 138.156 118.628 131.403 128.304 111.1652 1118.666 118.128.304 111.1652 113.1666 118.225 113.1666 118.225 118.666 118.225 118.666 124.331 118.866 124.331 118.866 124.331 118.866 124.331 118.866 124.331 128.284 118.002 75.132 50.247 40.820 46.691 70.992 80.790   | 2.350 24.75  | 9 75.4323<br>1 89.0962<br>2 85.820<br>4 75.724<br>5 66.573<br>1 59.6033<br>1 59.6033<br>1 59.6033<br>1 0.000<br>2 0.000<br>2 0.000<br>2 0.000<br>2 0.000<br>3 1.888<br>4 4.7.327<br>4 4.2853<br>4 4.2853<br>4 4.7.0424<br>5 5 6.318<br>8 5 6.318<br>1 0.000<br>2 0.000<br>3 1.888<br>4 4.7.0424<br>5 5 6.318<br>6 5 7.736<br>6 5 7.736<br>6 5 7.736<br>7 1 8.3203<br>8 1 5 7 1 8 3 3 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | deg<br>0.000<br>33.898<br>37.154<br>37.310<br>36.162<br>35.068<br>34.271<br>35.186<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>33.431<br>34.272<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>33.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852<br>35.852  | -0.419 -0.421 -0.399 -0.401 -0.399 -0.401 -0.359 -0.351 -0.351 -0.351 -0.000 -0.000 -0.000 -0.000 -0.257 -0.228 -0.200 -0.173 -0.178 -0.188 -0.189 -0.221 -0.221 -0.221 -0.221 -0.221 -0.221 -0.179 -0.178 -0.178 -0.189 -0.179  | 0.000<br>3.727<br>2.860<br>2.650<br>2.650<br>2.831<br>3.605<br>3.331<br>3.605<br>3.331<br>3.605<br>3.330<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>3.636<br>3.743<br>3.652<br>3.743<br>3.652<br>3.743<br>3.652<br>3.743<br>3.652<br>3.743<br>3.652<br>3.743<br>3.652<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.743<br>3.744<br>3.743<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3.744<br>3. | tsf 0,000 69,412 98,683 100,292 88,179 79,469 72,593 80,496 73,3114 0,000 0,000 71,786 69,866 69,015 0,000 74,775 77,947 80,752 84,504 88,215 91,350 0,000 0,000 0,000 0,000 74,775 77,947 80,752 84,504 88,215 91,350 0,000 0,58,88 82,347 98,84,504 88,247 98,845 92,347 98,845 92,347 97,947 0,000 0,000 0,000 0,000 0,000 0,58,88 82,347 98,845 94,347 98,3 | tsf   0.405   0.000    | Isf   1000   100   | 10 000 0.000  | MPa 0.990 9.8 3.032 30.3032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.032 30.3 3.04 3.04 3.04 3.04 3.04 3.04 3.04  | 77 9.887<br>16 30.316<br>33 59.933<br>19 61.919<br>36 48.693<br>26 38.726<br>36 38.726<br>36 38.726<br>36 38.726<br>36 38.726<br>36 38.726<br>36 38.726<br>37 38.726<br>38 42.134<br>49 16.199<br>38 14.635<br>38 14.635<br>38 14.635<br>38 14.635<br>39 16.199<br>30 14.635<br>30 14.635<br>3   |
| 56 0 100<br>57 0 155<br>58 0 200<br>59 0 256<br>60 0 300<br>61 0 350<br>62 0 460<br>63 0 456<br>66 0 550<br>66 0 550<br>67 0 67<br>68 0 550<br>68 0 550<br>69 0 600<br>70 0 600<br>71 0 550<br>72 0 500<br>73 1 500<br>74 1 150<br>77 1 150<br>78 1 150<br>79 1 150<br>79 1 150<br>70 1 15 | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Ang et Ang fs Ang u Ang R SB1  | S 7 8 8 0 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551   | tef  | tel bif  | R 0.0000 1.700  | bpf 3.881 7.133 11.752 12.141 11.752 12.141 11.752 12.141 11.751 9.112 7.713 9.339 7.811 6.275 6.553 8.557 7.338 8.134 7.320 7.831 8.562 9.338 8.552 9.338 10.031 9.550 6.554 8.552 9.338 10.031 9.550 6.554 8.552 9.338 10.031 9.550 6.554 9.338 10.031 9.550 6.554 9.338 9.550 9.355 9.3   | bpf  | bpf bpf bbf bf bpf bpf bpf bpf bpf bpf b   | pf   2776   645.883   239.1776   245.883   239.1776   245.883   239.1776   245.883   239.1776   245.883   239.1776   245.883   239.176   245.883   238.176   245.883   238.176   245.883   238.176   245.883   238.176   245.883   245.833   245.883   245.883   245.883   245.883   245.883   245.883   245.883   245.883   245.883   245.883   245.883   245.883   | \$\frac{1}{2}\text{S} \text{ of } \frac{1}{2}\text{S}  of  |  | -0.002   | 647.379 988.428 1296.892 999.034 627.612 416.223 302.143 320.241 327.766 137.156 94.564 78.338 75.298 83.365 130.403 125.304 110.662 105.825 10.159 112.606 117.886 123.31 127.284 117.002 74.132 49.247 39.820 49.927 49.927 49.927 49.927 59.930 69.932 79.793 79.790 75.7634  | MPa 1.584 1.781 1. | 989.429 1297.893 1000.035 628.612 417.223 303.143 321.241 233.83 321.241 233.83 321.241 233.83 321.241 233.83 261.241 233.83 261.241 233.83 261.241 233.83 261.241 261.261 261  | 2.360  | 9 75.4322 85 8222 85 8  | deg  | -0.419 -0.427 -0 | 0.000<br>3.727<br>2.680<br>2.687<br>2.681<br>3.061<br>3.341<br>3.065<br>3.351<br>3.351<br>3.351<br>3.351<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3.552<br>3. | tsf 0.000 69.412 98.683 100.292 89.179 79.459 77.459 80.179 60.000 0.000 0.000 0.000 0.000 71.786 0.000 74.775 69.866 69.015 0.000 74.775 80.752 84.504 88.215 91.350 88.215 91.350 0.000  | tsf 0.405   0.405   0.000   0. | bsf  | 10 000 0000 0000 0000 0000 0000 0000 0  | MPa 0.990 9.8 3.032 30.090 9.8 3.032 30.3 30.2 30.3 30.2 30.3 30.3 30.  | 77 9.897<br>160 90.316<br>161 90.316<br>161 90.316<br>161 91.316<br>161 91.3   |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.300 60 0.6000 60 0.60000 60 0.6000 60 0.6000 60 0.6000 60 0.6000 60 0.6000 60 0.60000  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Ang et Avg ls Avg u Avg R SB1  | S 7 8 8 0 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | tel bif  | R 0.0000 1.700  | bpf 3.881 7.133 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.152  | bpf 6.598 12.126 19.477 15.490 11.126 19.477 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.327 15.490 11.490   | bpf b, 1, 1927 3. 1, 1   | pri   1775   184 | \$\frac{1}{2}\text{S}\$ \text{ of } \text{ if }    \text{ of }     \text{ of }   \text   | -0.002   |  | 647.379 988.428 97 989.42 97 989.42 989.42 989.52 999.52 97 989.52   | MPa 0.584 1.781 3.521 1.783 3.628 3. | 989.429 989.429 989.429 1297.893 1000.035 628.612 417.223 303.143 321.241 231.  | 2.2606 24.788 24.7   | 75.432454   | dep  | -0.419 -0.427 -0.409 -0 | 0.000<br>3.727<br>2.680<br>2.687<br>3.341<br>3.403<br>3.505<br>3.351<br>3.351<br>3.351<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3. | uf   | taf  | 181 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 110 000 000 000 000 000 000 000 000 000   | MPa 0.990 9.8 3.032 30.090 9.8 3.032 30.090 9.8 3.032 30.3 30.3 30.3 30.3 30.3 30.3 30.   | 77 9.897<br>160 30.316<br>331 59.933<br>161 61 30.316<br>331 59.933<br>162 61 919<br>163 62 62 62 62 62 62 62 62 62 62 62 62 62  |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.500 60  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Aug et   | S 7 8 8 0 0 6 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>117.735<br>114.551<br>114.551<br>114.551<br>111.360<br>111.360<br>111.360<br>111.360<br>111.361<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | ## ## ## ## ## ## ## ## ## ## ## ## ##   | isf         hif           0.009         0.000           0.009         0.000           0.009         0.000           0.008         0.000           0.008         0.000           0.008         0.000           0.001         0.000           0.007         0.000           0.008         0.000           0.008         0.000           0.009         0.000           0.009         0.000           0.000         0.000           0.001         0.000           0.002         0.000           0.003         0.000           0.004         0.000           0.005         0.000           0.006         0.000           0.007         0.000           0.008         0.000           0.009         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000         0.000           0.000  | R 0.0000 1.700   | ipf s. 3.881 7.133 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.141 11.752 12.1   | 100 for 5598 121.76 for 5598 1   | bgf bg   | pr   275   645.883   227   275   645.883   227   | \$\frac{1}{2}\text{287}\text{ 0.606}\$  1.124\text{ 18.596}\$  1.124\text{ 18.596}\$  1.124\text{ 18.596}\$  0.653\text{ 3.775}\$  0.653\text{ 3.736}\$  0.735\text{ 3.736}\$  0.735\text{ 3.736}\$  0.735\text{ 2.736}\$  0.735\text{ 2.736}\$  0.735\text{ 2.736}\$  0.735\text{ 2.736}\$  0.736\text{ 2.736}\$  0.737\text{ 2.737}\$  0.736\text{ 2.736}\$  0.737\text{ 2.737}\$  0.736\text{ 2.737}\$  0.736\text{ 2.737}\$  0.737\text{ 2.737}\$  0.737\text{ 2.737}\$  0.736\text{ 2.737}\$  0.737\text{ 2.737}\$  0.737\text  | 5 -0.002<br>5 -0.001<br>2 -0.001<br>2 -0.001<br>2 -0.001<br>3 -0.002<br>5 -0.002<br>6 -0.003<br>6 -0.003<br>6 -0.003<br>7 -0.003<br>8 -0.001<br>8 -0.001<br>8 -0.001<br>9 -0.002<br>9 -0.003<br>9 -0.0   | -0.002 -0.001 -0.001 -0.001 -0.001 -0.002 -0.003 -0.003 -0.004 -0.002 -0.003 -0.004 -0.003 -0.004 -0.003 -0.004 -0.003   | 947.379 988.428 97.4379 988.428 999.0341 416.223 999.0341 416.223 939.0341 416.223 320.241 320.241 320.241 321.566 33.267 78.338 33.067 33.1566 93.1267 93.126   | MPa   Sept.   MPa   MPa  | 989.429 1297.893 1000.035 628.612 417.223 303.143 321.241 238.766 138.156 95.564 79.338 76.298 84.365 111.662 103.608 94.126 107.825 111.1502  | 2.2606 24.788 24.7   | 75.432.432.432.432.432.432.432.432.432.432  | 600<br>600<br>33,888<br>37,310<br>37,154<br>37,310<br>37,154<br>35,068<br>35,068<br>35,168<br>35,168<br>35,168<br>35,168<br>35,168<br>35,168<br>35,168<br>35,168<br>35,168<br>36,168<br>36,168<br>36,168<br>36,177<br>37,310<br>36,177<br>37,310<br>36,177<br>37,310<br>36,177<br>37,310<br>36,177<br>37,310<br>36,177<br>37,310<br>37,178<br>37,178<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,177<br>38,1 |  | 0.000<br>3.727<br>2.659<br>2.657<br>3.341<br>3.341<br>3.365<br>3.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000     | sid 0.000  | tid 1  | ist  | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0  | MPa 0 990 9.8 3.032 30.0 990 9.8 3.032 30.0 990 9.8 3.032 30.0 990 9.8 3.032 30.0 990 9.8 3.032 30.0 990 9.8 3.032 30.0 990 9.8 3.0 9.8 3.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9   | 77 9.897<br>160 30.316<br>33 569 533<br>169 533<br>169 533<br>169 633<br>169 633<br>169 63<br>169 63   |
| 56 0.100 57 0.150 58 0.200 58 0.200 50 0.550 60 0.300 60 0.300 60 0.500 60  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Anget Angle  | S 7 8 8 0 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | 18   | R  | bp   c   c   c   c   c   c   c   c   c   | 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | bgf bg   | pri   275   445.883   222   227   22 | \$\frac{1}{2}\text{ of } \frac{1}{2}\text{ of } \frac{1}{2} of   |  | -0.002   | 647.379 988.428 989.034 681.0892 999.034 61.0892 999.034 61.0892 61.08   | MPa    | \$99.429   \$99.429   \$99.429   \$99.429   \$99.429   \$99.429   \$99.429   \$99.52 | 2.2606 24.788 24.7   | 75.4324   | 692 33,858 33,858 37,310 23,858 37,310 23,858 36,858 36,86   | -0.419   | 0.000<br>3.727<br>2.650<br>2.657<br>3.341<br>3.341<br>3.358<br>3.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00               | til 0.000 0. | tid 10 40 50 50 50 50 50 50 50 50 50 50 50 50 50   | 181 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 10 000 0 000 0 000 0 0 0 0 0 0 0 0 0 0  | MPa 0,990 9.8 3.032 30.0 9.8 3.032 30.0 30.0 30.0 30.0 30.0 30.0 30.  | 77 9.897<br>160 30.316<br>33 169<br>33 59 933<br>130 61 131<br>131 61 131<br>132 61 131<br>133 62 132<br>134 62 132<br>135 62 132<br>136 132<br>137 132<br>137 132<br>137 132<br>137 132<br>137 132<br>137 132<br>137 132<br>137 137<br>137 137   |
| 56 0 100 55 56 0 100 56 56 0 100 56 56 0 100 56 56 56 0 100 56 56 56 56 56 56 56 56 56 56 56 56 56   | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R   | Avg et   | S 7 8 8 0 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | 65 bf  | R  | bp   color   | 197    | bgf bg   | pri   1975   1989   1975   197 | \$\frac{1}{2}\) \$\text{eff}\$ \$\text{1.52}\) \$\text{eff}\$ \$\text{eff}\$ \$\text{1.52}\) \$\text{eff}\$ \$ef |  | -0.002   | 847.379 988.428 978.938 989.034 989.034 978.037 978.03   | MPa 1 55 572 572 573 573 573 573 573 573 573 573 573 573   | \$99.429   \$99.42 | 2.306 24.78  | 9 75.424.2  | 690<br>33,858<br>37,310<br>33,858<br>37,310<br>35,068<br>35,068<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>36,000<br>3 |  | 0.000<br>3.727<br>2.589<br>2.537<br>3.341<br>3.341<br>3.341<br>3.351<br>3.300<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0. | tal 0.000 (99.412) (10.0000 (10.000 (10.000 (10.000 (10.000 (10.000 (10.000 (10.000 (10.000 (10.000 (1 | tid 10.405   | ist   100      | 10 000 0 000 0 000 0 000 0 0 000 0 0 000 0  | MPa  MPa  MPa  MPa  MPa  MPa  MPa  MPa  | 77 9.887<br>16 30.316<br>33 59.933<br>16 61.919<br>30 48.663<br>30 50 50 50 50 50 50 50 50 50 50 50 50 50   |
| 56 0.100 57 0.150 58 0.200 58 0.200 50 0.500 60 0.300 60 0.300 60 0.500 60  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Angel  | S 7 8 8 0 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | 18   | R 0.0000 1.700  | bp   color   | 197    | bgf bg   | pri   275   445.883   227   275   245.883   227  | \$\frac{1}{2}\text{S}\$ \text{ of } \text{ if }    \text{ of }    \text{ of }  \text   |  | -0.002   | 647.379 988.428 978.428 978.628  | MPa    | \$193.72.891 \$193.72.891 \$1000.035 \$1 | 2.266 2.478  | 75.4324   | 699, 0000<br>33,858 35,858 37,310 31,00   |  | 0.000<br>3.727<br>2.680<br>2.637<br>2.331<br>3.341<br>3.341<br>3.358<br>0.000<br>0.000<br>0.000<br>0.000<br>3.368<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3.378<br>3. | tal 0.000 69.412 69.615 | tid 10 40 40 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50  | int of 000 000 000 000 000 000 000 000 000   | 10 000 000 0000 0000 0000 0000 0000 00  | MPa  MPa  MPa  MPa  MPa  MPa  MPa  MPa  | 77 9.897<br>160 30.316<br>353 59.953<br>150 61.915<br>150 61.9   |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.6000 60 0.60000 60 0.6000 60 0.6000 60 0.6000 60 0.6000 60 0.6000 60 0.60000  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Ang of   | S 7 8 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | tel bif  | R 0.0000 1.7000 0.0000 1.7000  | bpf   ppf  | 1947 6.598 12.7126 1997 1997 1997 1997 1997 1997 1997 199  | bgf bg   | pri   1975   1989   198 | \$\frac{1}{5}\$ \text{ if } \frac{1}{5}\$ \text{ of } \text{ of } \frac{1}{5}\$ \text{ of } \text{ of } \frac{1}{5}\$  o   | - 4-0022   | -0.002   | 847.379 988.428 987.389 988.428 988.428 989.638 999.63   | MPa 1781 1781 1781 1781 1781 1781 1781 178   | \$99.429   \$99.42 | 2.206 24.78  | 75.4324   | 692 33888 37154 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34277 34372  |  | 0.000<br>3.727<br>2.680<br>2.637<br>2.381<br>3.341<br>3.341<br>3.365<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3.305<br>3. | uf 0.000 60.412 60.402  | isf 10-400 (14 | int   100      | 10 000 0 000 0 0 0 0 0 0 0 0 0 0 0 0 0  | MPa   | 77 9.887<br>165 30.316<br>165 30.316<br>167 30.3   |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.500 60  | Depth   Elev   Elev   Elev   R   | Ang of   | S 7 8 8 0 0 6 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | per  | ## ## ## ## ## ## ## ## ## ## ## ## ##   | tel bif  | R 0.0000 1.700  | bp   c   c   c   c   c   c   c   c   c   | 1947 1978 1979 1979 1979 1979 1979 1979 197  | bgf bg   | pf   275   645.883   232 | \$\frac{1}{2}\text{ et al.}  \frac{1}{2}\text{ et al.}   \tex  | -0.002   -0.001   -   | -0.002   | 947.379 988.428 999.999.999.999.999.999.999.999.999.99   | MPa    | 989.429 839 939 939 939 939 939 939 939 939 93  | 2.2606 24.788 24.7   | 7.5.424   | 692 33888 33883 348177 33902 34858 35215 3   | -0.419 -0.421   | 0.000<br>3.727<br>2.680<br>2.687<br>2.831<br>3.341<br>3.341<br>3.365<br>3.300<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000     | 98   | isf 0.405   0. | ef   | 10.000 (1.000)  | MPa  MPa  MPa  MPa  MPa  MPa  MPa  MPa  | 77 9.897<br>161 30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316<br>30.316   |

| A B C  | D E                            | F G                            | H<br>0.696     | 1 7            | J | K 7 | L<br>6 | M<br>6                                | N<br>117 733       | 0 0 444        | P<br>0.444 | Q<br>0.000 | R<br>0.000 | S<br>1 533 | T<br>9.592       | U<br>14.703      | V<br>6.268       | 9 608            | X<br>66 611      | Y<br>0.706     | Z<br>20 504      | AA<br>0.001      | AB AC 0.001 66.513             | AD AE                      | AF<br>3 2.115        | AG AF                      | H AI                   | AJ<br>-0.119     | AK A                   | L AM                   | AN<br>0.000    | AO A                   | AP AQ<br>411 44 110        | AR 44 110        |
|--|--------------------------------|--------------------------------|----------------|----------------|---|-----|--------|---------------------------------------|--------------------|----------------|------------|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|----------------|------------------|------------------|--------------------------------|----------------------------|----------------------|----------------------------|------------------------|------------------|------------------------|------------------------|----------------|------------------------|----------------------------|------------------|
| 102 2.400 7.874 -2.400 -                                 | 7.874 29.297                   | 0.212 1.150                    | 0.724          | 7              | 6 | 7   | 6      | 6                                     | 117.733            |                | 0.454      |            | 0.000      | 1.516      | 9.356            | 14.187           | 6.168            | 9.354            | 63.540           | 0.735          | 28.843           | 0.001            | 0.001 63.461                   | 2.803 64.46                | 1 2.138              | 16.968 42.7                | 90 35.519              | -0.118           | 3.191 93.              |                        | 0.000          | 0.000 4.3              | 256 42.561                 | 42.561           |
|  | -8.038 28.836                  | 0.229 0.940                    | 0.794          | 7              | 6 | 7   | 6      | 5                                     | 117.733            | 0.464          | 0.464      | 0.000      | 0.000      | 1.501      | 9.208            | 13.817           | 6.148            | 9.225            | 61.200           | 0.807          | 28.372           | 0.001            | 0.001 61.137                   | 2.760 62.13                | 7 2.168              | 17.949 42.0                | 35.393                 | -0.122           | 3.233 93.              | 252 0.000              | 0.000          | 0.000 4.               | .145 41.452                | 41.452           |
|  | 8.202 31.406<br>8.366 36.396   | 0.257 0.910<br>0.272 0.920     | 0.818          | 7              | 6 | 7 8 | 6      | 5                                     | 117.733            | 0.473          | 0.473      | 0.000      | 0.000      | 1.485      | 10.029           | 17.088           | 6.638<br>7.474   | 9.859            | 74 368           | 0.831          | 30.932           | 0.001            | 0.001 65.301                   | 3.006 66.30                | 0 2.147              | 17.271 44.1                | 85 35.752<br>22 36.408 | -0.131<br>-0.135 | 3.114 97.              | 731 0.000              | 0.000          |                        | .468 44.683<br>126 51.263  | 44.683           |
|  | 8.530 35.475                   | 0.258 0.790                    | 0.727          | 7              | 6 | 8   | 6      | 6                                     | 117.733            | 0.493          | 0.493      | 0.000      | 0.000      | 1.456      | 11.328           | 16.491           | 7.305            | 10.634           | 71.021           | 0.738          | 34.982           | 0.001            | 0.001 70.971                   | 3.396 71.97                | 1 2.082              | 15.281 47.1                | 04 36.238              | -0.129           | 2.957 104              | 953 0.000              | 0.000          | 0.000 4.9              | 947 49.474                 | 49.474           |
|  | 8.694 33.243                   | 0.236 0.490                    | 0.710          | 7              | 6 | 7   | 6      | 6                                     | 117.733            | 0.502          | 0.502      | 0.000      | 0.000      | 1.442      | 10.616           | 15.304           | 6.908            |                  | 65.192           | 0.721          | 32.741           | 0.000            | 0.000 65.162                   | 3.183 66.16                | 2 2.105              | 15.959 44.9                | 63 35.881              | -0.119           | 3.072 102              | 164 0.000              | 0.000          |                        | 591 45.913                 | 45.913           |
|  | -8.858 30.043<br>-9.022 27.412 | 0.242 0.450<br>0.242 0.320     | 0.806          | 7              | 6 | 7   | 6      | 5                                     | 117.733            | 0.512          | 0.512      | 0.000      | 0.000      | 1.428      | 9.594<br>8.754   | 13.700           | 6.423            | 9.172<br>8.496   | 57.692<br>51.561 | 0.819          | 29.531           | 0.000            | 0.000 57.664                   | 2.877 58.66                | 2 2.234              | 18.164 41.7                | 89 35.352              | -0.118           | 3.246 97.              | 562 0.000<br>424 0.000 | 0.000          | 0.000 4.               | .110 41.100<br>715 37.152  | 41.100           |
|  | 9.186 26.391                   | 0.221 0.180                    |                | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.522          | 0.522      | 0.000      | 0.000      | 1.402      | 8.428            | 11.814           | 5.796            |                  | 48.684           | 0.855          | 25.860           | 0.000            | 0.000 48.673                   | 2.528 49.67                | 3 2.239              | 20.341 37.5                | 44 34.645              | -0.106           | 0.101                  | 924 0.000              | 0.000          | 0.000 3.               | .544 35.442                | 35.442           |
|  | 9.350 25.481                   | 0.172 0.110                    | 0.675          | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.541          | 0.541      | 0.000      | 0.000      | 1.389      | 8.137            | 11.304           | 5.527            | 7.678            | 46.113           | 0.690          | 24.940           | 0.000            | 0.000 46.107                   | 2.441 47.10                | 7 2.210              | 19.322 36.2                | 79 34.434              | -0.084           | 3.552 90.              | 36 0.000               | 0.000          | 0.000 3.3              | .391 33.912                | 33.912           |
|  | 9.514 23.650<br>9.678 21.809   | 0.140 +0.050<br>0.138 +0.140   | 0.592          | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.551          | 0.551      | 0.000      | 0.000      | 1.377      | 7.552<br>6.964   | 10.399<br>9.507  | 5.142            | 7.081<br>6.607   | 41.961<br>37.934 | 0.606          | 23.099           | -0.000           | -0.000 41.964 :                | 2.266 42.96                | 4 2.216              | 19.523 33.8                | 88 34.035              | -0.065           | 3.683 87.<br>0.000 0.0 | 131 0.000<br>00 0.000  | 0.000          | 0.000 3.               | .120 31.198                | 31.198           |
| 114 3.000 9.842 -3.000 -                                 | 9.842 21.749                   | 0.114 -0.210                   | 0.524          | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.570          | 0.570      | 0.000      | 0.000      | 1.353      | 6.945            | 9.400            | 4.763            | 6.446            | 37.169           | 0.538          | 21.179           | -0.000           | -0.000 37.180                  | 2.084 38.18                | 0 2.232              | 20.100 30.9                | 92 33.553              | -0.045           | 0.000 0.0              |                        | 0.000          | 0.000 2.0              | 820 28.200                 | 28.200           |
|  | 10.006 22.807                  | 0.099 2.670                    | 0.434          | 7              | 6 | 7   | 6      | 6                                     | 117.733            | 0.580          | 0.580      | 0.000      | 0.000      | 1.342      | 7.283            | 9.775            | 4.892            | 6.566            | 38.358           | 0.445          | 22.227           | 0.004            | 0.004 38.214                   | 2.177 39.21                | 4 2.183              | 5.000 32.1                 | 13 33.740              | -0.032           | 0.000 0.0              | 0.000                  | 0.000          | 0.000 2.5              | .932 29.325                | 29.325           |
|  | 10.170 26.269<br>10.335 27.153 | 0.103 1.450<br>0.141 0.540     | 0.392          | 7              | 6 | 7   | 6      | 6                                     | 117.733            | 0.589          | 0.589      |            | 0.000      | 1.331      | 8.389<br>8.671   | 11.166           | 5.474            | 7.287<br>7.595   | 43.590           | 0.401          | 25.680           | 0.002            | 0.002 43.514                   | 2.512 44.51                | 4 2.112<br>0 2.153   | 5.000 35.9                 | 27 34.375              | -0.036           | 3.571 93.              | 347 0.000<br>333 0.000 | 0.000          | 0.000 3.               | .350 33.499<br>435 34.346  | 33.499           |
|  | 10.499 28.601                  | 0.141 0.540                    | 0.818          | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.609          | 0.609      | 0.000      | 0.000      | 1.320      | 9.133            | 11.963           | 6.256            | 8.194            | 46.008           | 0.836          | 27.992           | 0.000            | 0.001 44.320                   | 2.740 47.00                | 1 2.230              | 20.008 37.9                | 03 34.705              | -0.059           | 3.462 99.              | 0.000                  | 0.000          | 0.000 3.               | .589 35.889                | 35.889           |
|  |                                | 0.308 0.400                    |                | 7              | 5 | 7   | 6      | 5                                     | 117.733            | 0.618          | 0.618      | 0.000      | 0.000      |            | 9.817            | 12.758           | 6.789            |                  | 48.738           | 1.022          | 30.124           | 0.000            | 0.000 48.718                   | 2.944 49.71                | 8 2.252              | 20.797 39.7                | 47 35.012              | -0.121           | 3.359 103.             | 318 0.000              | 0.000          | 0.000 3.               | .827 38.273                | 38.273           |
|  | 10.827 46.287<br>10.991 58.406 | 0.224 1.180<br>0.242 0.890     | 0.484          | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.628          | 0.628      | 0.000      | 0.000      | 1.289      | 11.086           | 14.294           | 9.021            | 11.632<br>13.942 | 72.721<br>90.575 | 0.491          | 45.659           | 0.001            | 0.001 72.663                   | 4.431 73.66                | 3 1.940              | 5.000 51.2                 | 51 36.929              | -0.097           | 2.746 127              | 135 0.000<br>607 0.000 | 0.000          | 0.000 5.               | .718 57.176                | 57.176           |
| 122 3.400 11.155 -3.400 -                                | 11.155 62.784                  | 0.308 -0.900                   | 0.414          | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.648          | 0.648      | 0.000      | 0.000      | 1.269      | 15.037           | 19.089           | 11.760           |                  | 95.934           | 0.419          | 62.137           | -0.000           | -0.000 95.977                  | 6.017 96.97                | 7 1.832              | 5.000 59.5                 | 43 38.311              | -0.104           | 2.387 149              | 917 0.000              | 0.000          | 0.000 7.               | .636 76.357                | 76.357           |
|  | 11.319 64.277                  | 0.360 -0.410                   |                | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.658          |            |            | 0.000      | 1.260      | 15.394           | 19.395           | 12.143           |                  |                  |                | 63.620           | -0.000           |                                | 6.159 97.76                |                      | 9.351 59.9                 |                        | -0.134           |                        | 415 0.000              | 0.000          | 0.000 7.               | .758 77.581                | 77.581           |
|  | 11.483 67.528<br>11.647 70.780 | 0.408 +0.250<br>0.380 +0.020   | 0.604<br>0.537 | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.668          | 0.668      |            | 0.000      | 1.250      | 16.173<br>16.952 | 20.224           | 12.767           | 15.965<br>16.360 | 100.161          | 0.610<br>0.542 | 66.861<br>70.102 | -0.000           |                                | 6.470 101.1<br>6.781 104.4 | 72 1.858<br>80 1.816 | 9.398 61.1                 | 99 38.587              | -0.144<br>-0.137 |                        | 286 0.000<br>198 0.000 | 0.000          | 0.000 8.0              | .090 80.897<br>.417 84.169 | 80.897           |
|  | 11.811 75.421                  | 0.380 -0.020                   | 0.537          | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.688          | 0.688      | 0.000      | 0.000      | 1.241      | 18.063           | 22.260           | 13.179           | 17.174           | 103.479          | 0.542          | 74.733           | 0.000            | 0.000 103.480                  | 7.225 109.7                | 19 1.794             | 8.001 63.9                 | 48 39.045              | -0.137           | 2.291 162              | 0.000                  | 0.000          | 0.000 8.9              | 904 89.039                 | 89.039           |
|  | 11.975 74.581                  | 0.366 0.140                    | 0.491          | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.698          | 0.698      |            | 0.000      | 1.224      | 17.862           | 21.855           | 13.718           | 16.784           | 105.959          | 0.495          | 73.884           | 0.000            | 0.000 105.953                  | 7.144 106.9                | 53 1.781             | 5.000 63.4                 | 21 38.958              | -0.131           | 2.257 168              |                        | 0.000          | 0.000 8.               | .742 87.419                | 87.419           |
|  | 12.139 66.830<br>12.303 60.659 | 0.351 +0.020<br>0.428 +0.180   |                | 8              | 6 | 8   | 6      | 6                                     | 120.915            | 0.707          | 0.707      |            | 0.000      | 1.215      | 16.006<br>14.528 | 19.446<br>17.528 | 12.555<br>11.854 | 15.253<br>14.302 | 93.499<br>83.587 | 0.531          | 66.123<br>59.942 | -0.000<br>-0.000 | -0.000 93.500<br>-0.000 83.595 | 6.402 94.50<br>5.812 84.59 | 0 1.840              | 9.003 60.0<br>11.558 57.0  | 74 38.400<br>97 37.904 | -0.126           | 2.368 158<br>2.482 150 |                        | 0.000          | 0.000 7.               | 77.782                     | 77.782           |
|  | 12.303 60.659<br>12.467 39.347 | 0.428 -0.180                   |                | 7              | 5 | 8   | 6      | 5                                     | 120.915            | 0.717          | 0.717      |            | 0.000      | 1.198      | 12.565           | 17.528           | 11.854<br>8.818  |                  |                  |                | 38.621           | -0.000           |                                | 5.812 84.59<br>3.771 54.14 |                      | 22.027 44.4                |                        | -0.141           |                        | 923 0.000              | 0.000          |                        | .011 /0.110                | 45.171           |
| 131 3.850 12.631 -3.850 -                                | 12.631 19.569                  | 0.728 -0.220                   | 3.720          | 4              | 4 | 7   | 5      | 3                                     | 114.551            | 0.737          | 0.737      | 0.000      | 0.000      | 1.191      | 12.498           | 14.879           | 5.460            | 7.449            | 25.572           | 3.866          | 18.832           | -0.000           | -0.000 25.582                  | 1.875 26.58                | 2 2.742              | 42.729 0.00                | 0.000                  | 0.000            | 0.000 0.0              | 00 1.256               | 0.000          | 10.000 2.3             | 232 22.319                 | 25.572           |
|  | 12.795 12.122<br>12.959 7.421  | 0.480 0.380<br>0.338 1.840     |                | 3              | 3 | 6   | 5      | 3                                     | 111.369<br>111.369 | 0.746<br>0.755 | 0.746      |            | 0.000      | 1.183      | 11.613<br>7.110  | 13.740<br>8.361  | 3.782<br>2.699   |                  |                  | 4.219<br>5.070 | 11.377<br>6.667  | 0.001            |                                | 1.160 16.24<br>0.705 9.75  |                      | 54.418 0.00<br>71.010 0.00 |                        | 0.000            | 0.000 0.0              | 00 0.759<br>00 0.445   | 0.001          |                        | .374 13.740<br>.836 8.361  | 15.256<br>8.832  |
|  | 12.959 7.421<br>13.123 18.750  | 0.338 1.840<br>0.268 8.070     | 1,429          | 6              | 5 | 6   | 4 5    | 5                                     | 114.551            | 0.764          | 0.764      |            | 0.000      | 1.176      | 7.110<br>7.185   | 8.361<br>8.398   | 4.766            | 3.352<br>5.570   | 8.832<br>23.539  | 1.490          | 17.986           | 0.008            | 0.009 8.756<br>0.014 23.210    | 1.772 24 21                | 0 2.560              | 71.010 0.00<br>33.445 0.00 | 0.000                  | -0.080           | 0.000 0.0              | 00 0.445               | 0.007          | 0.000 2                | .000 8.361                 | 20.995           |
| 135 4.050 13.287 -4.050 -                                | 13.287 22.916                  | 0.202 37.870                   | 0.881          | 7              | 5 | 6   | 5      | 5                                     | 117.733            | 0.774          | 0.774      | 0.000      | 0.000      | 1.162      | 7.318            | 8.501            | 5.345            | 6.208            | 28.622           | 0.912          | 22.143           | 0.052            | 0.053 27.094                   | 2.082 28.09                | 4 2.377              | 25.486 0.00                | 00 33.072              | -0.057           | 0.000 0.0              | 0.000                  | 0.000          | 0.000 2.               | .550 25.502                | 25.502           |
| 136 4.100 13.451 -4.100 -1<br>137 4.150 13.615 -4.150 -1 | 13.451 25.222<br>13.615 25.954 | 0.232 32.420<br>0.306 24.610   | 0.920          | 7              | 5 | 6   | 5      | 5                                     | 117.733            | 0.784          | 0.784      |            | 0.000      | 1.154      | 8.054<br>9.945   | 9.298            | 5.817            | 6.715            | 31.201           | 0.949          | 24.439           | 0.040            | 0.041 29.909                   | 2.319 30.90                | 9 2.352              | 24.501 30.6                | 79 33.501              | -0.069           | 0.000 0.0              |                        | 0.000          |                        | .789 27.894<br>853 28.530  | 27.894           |
|  | 13.615 25.954<br>13.779 23.514 | 0.306 24.610<br>0.317 19.910   | 1.1/9          | 6              | 5 | 6   | 5      | 5                                     | 114.551            | 0.793          | 0.793      | 0.000      | 0.000      | 1.14/      | 9.945            | 11.412           | 5.727            | 7.019<br>6.532   | 31.737<br>28.313 | 1.216          | 25.161           | 0.030            | 0.031 30.767<br>0.027 27.538   | 2.413 31.76<br>2.193 28.53 | 8 2.471              | 26.428 31.3<br>29.412 0.0  | 20.000                 | -0.092<br>-0.092 | 0.000 0.0              |                        | 0.000          | 0.000 2.               | .603 28.530<br>.570 25.697 | 25.697           |
| 139 4.250 13.943 -4.250 -                                | 13.943 18.406                  | 0.362 17.000                   |                | 6              | 4 | 6   | 5      | 4                                     | 114.551            | 0.812          | 0.812      | 0.000      | 0.000      | 1.134      | 7.053            | 7.999            | 4.838            | 5.949            | 21.679           | 2.057          |                  | 0.029            |                                | 1.712 22.02                | 5 2.628              | 36.727 0.00                | 00 31.911              | -0.098           | 0.000 0.0              | 00 0.000               | 0.000          |                        | .000 19.998                | 21.679           |
|  | 14.107 15.730<br>14.271 15.278 | 0.327 16.030<br>0.263 15.720   |                | 5              | 4 | 6   | 5      | 4                                     | 114.551            | 0.821          | 0.821      |            | 0.000      | 1.128      | 7.535<br>5.855   | 8.496<br>6.564   | 4.307<br>4.117   |                  | 18.160<br>17.399 | 2.193<br>1.820 |                  | 0.032            |                                | 1.459 18.55<br>1.417 17.80 |                      | 40.799 0.00<br>39.195 0.00 |                        | -0.000           | 0.000 0.0              | 00 0.994<br>00 0.000   | 0.063          |                        | .699 16.992<br>641 16.410  | 18.160<br>17.399 |
|  | 14.271 15.278<br>14.436 15.350 | 0.263 15.720<br>0.237 14.460   | 1.721          | 6              | 4 | 6   | 5      | 4                                     | 114.551            | 0.831          | 0.831      |            | 0.000      | 1.121      | 5.855            | 6.564            | 4.117            | 4.894            | 17.279           | 1.633          | 14.448           | 0.032            | 0.034 16.808<br>0.031 16.741   | 1.41/ 17.80                | 8 2.676<br>2 2.653   | 39.195 0.00<br>37.997 0.00 | 30.966<br>30.962       | -0.055           |                        | 00 0.000               | 0.000          | 0.000 1.0              | .041 16.410                | 17.279           |
| 143 4.450 14.600 -4.450 -                                | 14.600 14.100                  | 0.219 12.760                   | 1.553          | 6              | 4 | 6   | 5      | 4                                     | 114.551            | 0.850          | 0.850      | 0.000      | 0.000      | 1.109      | 5.403            | 5.990            | 3.833            | 4.428            | 15.604           | 1.653          | 13.250           | 0.028            | 0.030 15.135                   | 1.313 16.13                | 5 2.693              | 40.082 0.00                | 00 30.529              | -0.045           | 0.000 0.0              | 0.000                  | 0.000          | 0.000 1.4              | 498 14.976                 | 15.604           |
|  | 14.764 13.546<br>14.928 11.715 | 0.190 12.110                   | 1.403          | 6              | 4 | 6   | 5      | 4                                     | 114.551            | 0.859          | 0.859      |            | 0.000      | 1.103      | 5.191            | 5.723            | 3.678            | 4.188<br>3.781   | 14.777           | 1.498          | 12.687           | 0.028            |                                | 1.261 15.33<br>1.087 13.06 | 7 2.691              | 39.953 0.00                |                        | -0.032           | 0.000 0.0              |                        | 0.000          |                        | 431 14.309                 | 14.777           |
|  | 14.928 11.715<br>15.092 10.117 | 0.210 11.960<br>0.185 12.320   |                | 5              | 4 | 5   | 4      | 4                                     | 114.551            | 0.868          | 0.868      |            | 0.000      | 1.097      | 5.611            | 6.154<br>5.286   | 3.395            | 3.781            |                  | 1.936          | 9 240            | 0.032            |                                | 1.087 13.06<br>0.932 11.09 |                      | 46.643 0.00<br>50.875 0.00 |                        | 0.000            |                        | 00 0.723               | 0.047          | 3.476 1.3              | .231 12.307<br>.057 10.572 | 10.531           |
| 147 4.650 15.256 -4.650 -                                | 15.256 10.153                  | 0.155 13.260                   |                | 5              | 4 | 5   | 4      | 4                                     | 114.551            | 0.887          | 0.887      |            | 0.000      | 1.085      | 4.863            | 5.276            | 2.998            | 3.221            | 10.450           | 1.673          | 9.266            | 0.041            | 0.045 9.983                    | 0.933 10.98                | 3 2.844              | 48.599 0.00                | 0.000                  | 0.000            | 0.000 0.0              | 00 0.618               | 0.052          |                        | .055 10.553                | 10.450           |
|  | 15.420 9.387                   | 0.145 13.970                   |                | 5              | 4 | 5   | 4      | 4                                     | 114.551            | 0.897          | 0.897      |            | 0.000      | 1.079      | 4.496            | 4.853            |                  |                  |                  |                | 8.491            | 0.046            |                                | 0.858 9.98                 |                      | 51.102 0.00                |                        | 0.000            | 0.000 0.0              |                        | 0.055          |                        | .971 9.706                 | 9.475            |
|  | 15.584 9.404<br>15.748 7.840   | 0.117 15.040<br>0.109 15.950   | 1.244          | 5              | 4 | 5   | 4      | 4                                     | 114.551            | 0.906          | 0.906      |            | 0.000      | 1.074      | 4.504<br>3.755   | 4.836<br>4.011   | 2.775<br>2.468   |                  | 9.385<br>7.569   |                | 8.498<br>6.925   | 0.050            |                                | 0.856 9.86<br>0.703 8.02   |                      | 48.535 0.00<br>55.385 0.00 |                        | 0.000            |                        | 00 0.567<br>00 0.462   | 0.059          |                        | .967 9.672<br>.802 8.022   | 9.385<br>7.569   |
| 151 4.850 15.912 -4.850 -                                | 15.912 5.270                   | 0.092 17.550                   | 1.746          | 4              | 3 | 4   | 3      | 3                                     | 114.551            | 0.925          | 0.925      | 0.000      | 0.000      | 1.063      | 3.365            | 3.576            | 1.946            | 1.813            | 4.701            | 2.117          | 4.345            | 0.104            | 0.126 4.108                    | 0.452 5.10                 | 3.196                | 72.719 0.00                | 0.000                  | 0.000            | 0.000 0.0              | 00 0.290               | 0.069          | 1.042 0.               | 536 5.365                  | 4.701            |
| 152 4.900 16.076 -4.900 -                                | 16.076 4.096                   | 0.083 21.760                   | 2.026          | 3              | 3 | 3   | 3      | 3                                     | 111.369            | 0.934          | 0.934      |            | 0.000      | 1.057      | 3.924            | 4.149            | 1.721            | 1.486            | 3.387            | 2.625          | 3.162            | 0.166            | 0.215 2.659                    | 0.327 3.66                 | 3.366                | 86.713 0.00                | 0.000                  | 0.000            | 0.000 0.0              |                        | 0.085          | 0.792 0.4              | 4.149                      | 3.387            |
|  | 16.240 4.221<br>16.404 4.179   | 0.062 29.000<br>0.062 38.280   | 1.469          | 1 1            | 3 | 3   | 3      | 3 3                                   | 111.369            | 0.943          | 0.943      |            | 0.000      | 1.052      | 2.022            | 2.128            | 0.000            | 0.000            | 3.478            | 1.891          | 3.278            | 0.215            |                                | 0.318 3.51<br>0.286 3.13   |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              | 00 0.219<br>00 0.215   | 0.113          | 0.808 0.4<br>0.793 0.4 | .426 4.255<br>419 4.192    | 3.478            |
|  | 16.568 4.172                   | 0.062 38.280                   | 1.464          | 1              | 3 | 3   | 3      | 1                                     | 111.369            | 0.952          | 0.961      |            | 0.000      | 1.047      | 1.998            | 2.098            | 0.000            | 0.000            | 3.341            | 2.055          | 3.211            | 0.470            | 0.611 1.301                    | 0.212 2.30                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.149          | 0.785 0.0              | 4.165                      | 3.341            |
|  | 16.732 3.841                   | 0.065 69.000                   | 1.692          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 0.971          | 0.971      |            | 0.000      | 1.037      | 1.840            | 1.908            | 0.000            |                  |                  | 2.264          | 2.871            | 0.561            | 0.751 0.738                    | 0.162 1.73                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.269          | 0.723 0.3              | .382 3.817                 | 2.959            |
|  | 16.896 3.849<br>17.060 3.876   | 0.062 76.700<br>0.061 81.070   | 1.611<br>1.574 | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 0.980          | 0.980      |            | 0.000      | 1.032      | 1.844            | 1.903            | 0.000            | 0.000            |                  | 2.161          | 2.870            | 0.622            |                                | 0.139 1.48<br>0.129 1.36   |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0<br>0.000 0.0 | 00 0.191<br>00 0.193   | 0.300          |                        | .381 3.807<br>.382 3.816   | 2.930            |
| 159 5.250 17.224 -5.250 -                                | 17.224 3.779                   | 0.068 83.140                   | 1.799          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 0.998          | 0.998      | 0.000      | 0.000      | 1.023      | 1.810            | 1.852            | 0.000            | 0.000            | 2.788            | 2.445          | 2.781            | 0.687            | 0.933 0.186                    | 0.129 1.36                 | 7 3.426              | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              | 00 0.186               | 0.317          | 0.698 0.3              | 370 3.703                  | 2.788            |
| 160 5.300 17.388 -5.300 -                                | 17.388 3.966                   | 0.062 85.790                   | 1.563          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.007          | 1.007      | 0.000      | 0.000      | 1.018      | 1.900            | 1.934            | 0.000            | 0.000            | 2.939            | 2.095          | 2.959            | 0.676            | 0.905 0.278                    | 0.123 1.27                 | 3.374                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              |                        | 0.335          | 0.720 0.               | .387 3.869                 | 2.939            |
| 161 5.350 17.552 -5.350 -1<br>162 5.400 17.716 -5.400 -1 | 17.552 3.957<br>17.716 4.056   | 0.056 87.690                   | 1.415          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.016          | 1.016      |            | 0.000      | 1.014      | 1.896            | 1.922            | 0.000            | 0.000            | 2.896            | 1.904          | 2.942            | 0.692            |                                | 0.117 1.20                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.342          | 0.714 0.3              | 384 3.843                  | 2.896            |
| 163 5.450 17.880 -5.450 -                                | 17.880 4.149                   | 0.056 90.640                   | 1.381          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.025          | 1.025      |            | 0.000      | 1.009      | 1.943            | 1.961            | 0.000            | 0.000            | 3.013            | 1.894          | 3.031            | 0.698            |                                | 0.118 1.19                 | 0.047                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              |                        | 0.354          | 0.723 0.               | 399 3.994                  | 3.013            |
| 164 5.500 18.044 -5.500 -                                | 18.044 4.302                   | 0.067 93.270                   |                | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.044          | 1.044      | 0.000      | 0.000      | 1.000      | 2.061            | 2.061            | 0.000            | 0.000            | 3.124            |                | 3.259            | 0.677            | 0.894 0.332                    | 0.133 1.33                 | 3 3.347              | 0.000 0.00                 |                        | 0.000            |                        | 00 0.217               | 0.364          | 0.745                  | 412 4.123                  | 3.124            |
|  | 18.208 4.151<br>18.372 4.158   | 0.064 94.640<br>0.067 95.830   |                | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.053          | 1.053      |            | 0.000      | 0.996      | 1.988            | 1.980            | 0.000            |                  |                  |                | 3.098            | 0.712            |                                | 0.115 1.13<br>0.112 1.09   |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0<br>0.000 0.0 | 00 0.207<br>00 0.207   | 0.370          |                        | .396 3.960<br>395 3.950    | 2.944            |
| 167 5.650 18.537 -5.650 -                                | 18.537 4.101                   | 0.067 97.840                   | 1.634          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.062          | 1.002      | 0.000      | 0.000      | 0.987      | 1.964            | 1.940            | 0.000            | 0.000            | 2.830            | 2.164          | 3.030            | 0.745            | 1.008 -0.023                   | 0.100 0.97                 | 3.400                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.202               | 0.382          | 0.704 0.               | 395 3.950                  | 2.830            |
| 168 5.700 18.701 -5.700 -                                | 18.701 4.214                   | 0.066 96.830                   | 1.566          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.080          | 1.080      |            | 0.000      | 0.983      | 2.019            | 1.985            | 0.000            | 0.000            | 2.903            | 2.105          | 3.135            | 0.717            | 0.965 0.103                    | 0.114 1.10                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              | 00 0.209               | 0.378          | 0.715 0.               | 397 3.970                  | 2.903            |
|  | 18.865 4.310<br>19.029 4.207   | 0.067 99.310<br>0.064 103.610  | 1.555          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.089          | 1.089      | 0.000      | 0.000      | 0.979      | 2.064            | 2.021<br>1.965   | 0.000            | 0.000            | 2.958<br>2.831   | 2.080          | 3.221            | 0.720            | 0.963 0.110<br>1.041 -0.115    | 0.116 1.11                 | 1 3.370<br>5 3.385   | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              |                        | 0.388          | 0.723 0.4              | .404 4.043<br>.393 3.929   | 2.958            |
|  | 19.029 4.207<br>19.193 4.399   | 0.064 103.610                  |                | +              | 3 | 3   | 3      | 0                                     | 111.369            | 1.108          | 1.108      |            | 0.000      |            | 2.107            | 2.046            | 0.000            |                  |                  |                | 3.109            | 0.750            |                                | 0.106 0.99                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.405          |                        | .393 3.929<br>.409 4.092   | 2.831            |
| 172 5.900 19.357 -5.900 -                                | 19.357 4.398                   | 0.064 107.070                  | 1.455          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.117          | 1.117      | 0.000      | 0.000      | 0.967      | 2.107            | 2.037            | 0.000            | 0.000            | 2.940            | 1.950          | 3.282            | 0.760            | 1.019 -0.055                   | 0.101 0.94                 |                      | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.219               | 0.418          |                        | 407 4.075                  | 2.940            |
|  | 19.521 4.465                   | 0.066 106.470                  | 1.478          | 11             | 3 | 3   | 3      | 0                                     | 111.369            | 1.126          | 1.126      | 0.000      | 0.000      | 0.963      | 2.139            | 2.060            | 0.000            | 0.000            | 2.967            | 1.976          | 3.339            | 0.745            | 0.996 0.013                    | 0.109 1.014                |                      | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              |                        | 0.416          |                        | 412 4.119<br>410 4.101     | 2.967            |
|  | 19.685 4.463<br>19.849 4.724   | 0.063 107.760<br>0.061 109.570 | 1.412          | 1              | 3 | 3 3 | 3 3    | 0                                     | 111.369            | 1.135          | 1.135      | 0.000      | U.000      | 0.959      | 2.138            | 2.050<br>2.162   | 0.000            | 0.000            | 2.934<br>3.131   | 1.893          | 3.328<br>3.580   | U.754<br>0.724   | 1.011 -0.032<br>0.956 0.139    | 0.105 0.969<br>0.125 1.140 | 3.355                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0<br>0.000 0.0 | 00 0.222<br>00 0.239   | 0.421          | U.719 0.4<br>0.750 n.  | 410 4.101                  | 2.934<br>3.131   |
| 176 6.100 20.013 -6.100 -3                               | 20.013 4.633                   | 0.056 112.610                  | 1.209          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.153          | 1.153      | 0.000      | 0.000      | 0.952      | 2.219            | 2.112            | 0.000            | 0.000            | 3.019            | 1.609          | 3.480            | 0.759            | 1.010 -0.031                   | 0.107 0.97                 | 3.313                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.232               | 0.440          | 0.733 0.               | 422 4.223                  | 3.019            |
|  | 20.177 4.588                   | 0.059 113.340                  | 1.286          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.162          | 1.162      | 0.000      | 0.000      | 0.948      | 2.197            | 2.083            | 0.000            | 0.000            | 2.948            | 1.722          | 3.426            | 0.771            |                                | 0.101 0.90                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              | 00 0.228               | 0.443          |                        | 417 4.166                  | 2.948            |
|  | 20.341 4.672<br>20.505 4.869   | 0.056 114.080                  |                | -17            | 3 | 3   | 3      | , , , , , , , , , , , , , , , , , , , | 111.369            | 1.172          | 1.172      |            | 0.000      | 0.944      | 2.238            | 2.113            | 0.000            |                  | 2.990<br>3.126   | 1.885          | 3.501            | 0.762            |                                | 0.106 0.949<br>0.132 1.163 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.445          |                        | 423 4.226                  | 2.990            |
| 180 6.300 20.669 -6.300 -3                               | 20.669 4.951                   | 0.067 112.320                  |                | +              | 3 | 3   | 3      | 0                                     | 111.369            | 1.190          | 1.190      | 0.000      | 0.000      | 0.940      | 2.372            | 2.194            | 0.000            | 0.000            | 3.163            | 1.781          | 3.762            | 0.708            |                                | 0.132 1.16                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              | 00 0.251               | 0.437          |                        | 439 4.367                  | 3.163            |
|  | 20.833 4.773                   | 0.064 114.250                  |                | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.199          | 1.199      | 0.000      | 0.000      | 0.933      | 2.286            | 2.134            | 0.000            | 0.000            | 2.983            | 1.790          | 3.575            | 0.747            | 0.998 0.006                    | 0.116 1.00                 |                      | 0.000 0.0                  |                        | 0.000            | 0.000 0.0              |                        | 0.446          |                        | 427 4.268                  | 2.983            |
|  | 20.997 5.027<br>21.161 5.180   | 0.059 118.060<br>0.057 112.120 | 1.174          |                | 3 | 3 3 | 3      | 0 7                                   | 111.369            | 1.208          | 1.208      | 0.000      | 0.000      | 0.930      | 2.408<br>2.481   | 2.239            | 0.000            | 0.000            | 3.163            | 1.545          | 3.819            | 0.733            | 0.965 0.110<br>0.883 0.380     | 0.129 1.11<br>0.161 1.38   |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.461          | 0.755 0.4              | .448 4.477<br>.460 4.596   | 3.163            |
| 184 6.500 21.325 -6.500 -3                               | 21.325 4.742                   | 0.064 112.490                  | 1.350          | +              | 3 | 3   | 3      | Ö                                     | 111.369            | 1.226          | 1.226      | 0.000      | 0.000      | 0.923      | 2.272            | 2.096            | 0.000            | 0.000            | 2.868            | 1.820          | 3.516            | 0.741            | 0.999 0.003                    | 0.118 1.00-                | 3.356                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.235               | 0.439          |                        | 4.192                      | 2.868            |
| 185 6.550 21.489 -6.550 -3                               | 21.489 4.846                   | 0.061 113.080                  | 1.259          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.236          | 1.236      | 0.000      | 0.000      | 0.919      | 2.321            | 2.134            | 0.000            | 0.000            | 2.924            | 1.689          | 3.611            | 0.729            | 0.978 0.065                    | 0.126 1.06                 | 3.335                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.241               | 0.442          | 0.710                  | 4.268                      | 2.924            |
|  | 21.653 4.756<br>21.817 4.907   | 0.062 116.300                  | 1.304          | -              | 3 | 3   | 3      |                                       | 111.369            | 1.245          | 1.245      | 0.000      | 0.000      | 0.916      | 2.278            | 2.087            | 0.000            | 0.000            | 2.823            | 1.765          | 3.512            | 0.764            | 1.034 -0.096                   | 0.108 0.90                 |                      | 0.000 0.00                 |                        | 0.000            |                        | 00 0.234               | 0.454          |                        | 417 4.173                  | 2.823            |
|  | 21.817 4.907                   | 0.060 119.630                  | 1.228          | ++             | 3 | 3   | 3      | ŏ                                     | 111.369            | 1.254          | 1.263      | 0.000      | 0.000      | 0.913      | 2.341            | 2.129            | 0.000            | 0.000            | 2.871            | 1.655          | 3.624            | 0.764            | 1.031 -0.088                   | 0.117 0.97                 |                      | 0.000 0.00                 |                        | 0.000            | 0.000                  | 00 0.244               | 0.467          |                        | 426 4.257                  | 2.8/1            |
| 189 6.750 22.145 -6.750 -3                               | 22.145 4.952                   | 0.060 120.490                  | 1.212          |                | 3 | 3   | 3      | 0                                     | 111.369            | 1.272          | 1.272      | 0.000      | 0.000      | 0.906      | 2.372            | 2.149            | 0.000            | 0.000            | 2.895            | 1.630          | 3.681            | 0.760            | 1.022 -0.064                   | 0.114 0.93                 | 7 3.332              | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.245               | 0.470          | 0.714 0.4              | 430 4.298                  | 2.895            |
|  | 22.309 5.141<br>22.473 5.208   | 0.063 120.370<br>0.064 121.490 | 1.225          | 7              | 3 | 3   | 3      | 0                                     | 111.369            | 1.281          | 1.281      | 0.000      | 0.000      | 0.903      | 2.463<br>2.495   | 2.223            | 0.000            | 0.000            | 3.015            | 1.632          | 3.861            | 0.731            | 0.974 0.080<br>0.968 0.097     | 0.133 1.08<br>0.136 1.09   |                      | 0.000 0.0                  | 0.000                  | 0.000            | 0.000 0.0              | 00 0.257<br>00 0.261   | 0.470          | 0.732 0.4              | .445 4.447<br>.449 4.489   | 3.015            |
|  | 22.4/3 5.208<br>22.638 5.313   | 0.066 123.810                  | 1.229          | +              | 3 | 3   | 3      | 0                                     | 111.369            | 1.290          | 1.290      | 0.000      | 0.000      | 0.900      | 2.495            | 2.244            | 0.000            | 0.000            | 3.090            | 1.644          | 4.014            | 0.728            | 0.963 0.114                    | 0.130 1.09                 | 3.313                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.261               | 0.474          | 0.736 0.0              | 4.469                      | 3.090            |
| 193 6.950 22.802 -6.950 -2                               | 22.802 5.427                   | 0.064 127.660                  | 1.179          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.309          | 1.309      | 0.000      | 0.000      | 0.893      | 2.600            | 2.322            | 0.000            | 0.000            | 3.149            | 1.554          | 4.119            | 0.735            | 0.968 0.101                    | 0.138 1.10                 | 3.290                | 0.000 0.00                 | 0.000                  | 0.000            |                        | 00 0.275               | 0.498          |                        | 464 4.644                  | 3.149            |
|  | 22.966 5.539<br>23.130 5.754   | 0.067 129.570                  | 1.210          | - 1            | 3 | 3   | 3      | 0                                     | 111.369            | 1.318          | 1.318      | 0.000      | 0.000      | 0.890      | 2.653            | 2.362            | 0.000            | 0.000            | 3.205            | 1.587          | 4.222            | 0.730            | 0.958 0.133<br>0.874 0.423     | 0.143 1.13                 |                      | 0.000 0.00                 | 0.000                  | 0.000            |                        | 00 0.282               | 0.506          |                        | 472 4.724                  | 3.205            |
|  | 23.130 5.754                   | 0.067 124.020                  | 1.164          | <del>-  </del> | 3 | 3   | 3      | 0 7                                   | 111.369            | 1.32/          | 1.323      | 0.004      | 0.130      | 0.888      | 2.756            | 2.449            | 0.000            | 0.000            | 3.349            | 1.513          | 4.428            | 0.700            | 0.874 0.423<br>0.914 0.285     | 0.180 1.426<br>0.163 1.28  |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.484          |                        | .490 4.898<br>.485 4.854   | 3.349            |
| 197 7.150 23.458 -7.150 -2                               | 23.458 6.100                   | 0.073 131.390                  | 1.197          | +              | 3 | 3   | 3      | ō                                     | 111.369            | 1.345          | 1.331      | 0.014      | 0.458      | 0.886      | 2.922            | 2.588            | 0.000            | 0.000            | 3.575            | 1.535          | 4.756            | 0.670            | 0.860 0.502                    | 0.192 1.50                 | 3 3.238              | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.317               | 0.511          | 0.825 0.               | 518 5.177                  | 3.575            |
|  | 23.622 5.973<br>23.786 6.341   | 0.072 133.500                  | 1.205          | 1              | 3 | 3   | 3      | 0                                     | 111.369            | 1.354          | 1.335      | 0.019      | 0.622      | 0.884      | 2.861            | 2.531            | 0.000            | 0.000            | 3.462            | 1.559<br>1.406 | 4.620<br>4.978   | 0.695            | 0.898 0.353<br>0.881 0.444     | 0.173 1.354<br>0.185 1.44  |                      | 0.000 0.00                 |                        | 0.000            | 0.000 0.0              |                        | 0.519<br>0.548 |                        | .506 5.061<br>.537 5.365   | 3.462            |
|  | 23.786 6.341<br>23.950 6.113   | 0.070 141.170<br>0.066 142.970 | 1.104          | 1              | 3 | 3 3 | 3      | "                                     | 111.369            | 1.363          | 1.339      | 0.025      | 0.787      | 0.883      | 3.037            | 2.683            | 0.000            | 0.000            | 3.532            | 1.406          | 4.9/8            | 0.691            | U.661 U.444<br>U.935 U.228     | U.165 1.441<br>U.158 1.221 | 3.206                | 0.000 0.00                 | 0.000                  | 0.000            | 0.000 0.0              | 00 0.332               | 0.548          | 0.850 0.1<br>0.817 0.1 | .537 5.365<br>.516 5.164   | 3.720            |
|  |                                |                                |                |                |   |     | -      |                                       |                    |                |            |            |            |            |                  |                  |                  |                  |                  |                |                  | -                |                                |                            | 1                    |                            |                        |                  |                        |                        |                |                        |                            |                  |

|   | A B                                    | C                  | D       | E      | F     | G                  | H     | -      | J | K               | L | M      | N<br>444.000       | 0              | P     | Q              | R      | S     | T      | U      | V 0000         | W      | X              | Y     | Z      | AA .   | AB     | AC     | AD AFF | AE<br>4.000 | AF A       | G .    | AH     | Al A.       | J AK                 | AL 0.000         | AM    | AN             | AO . non       | AP<br>0.505 | AQ<br>F 050 | AR 2.400       |
|---|--|--------------------|---------|--------|-------|--------------------|-------|--------|---|-----------------|---|--------|--------------------|----------------|-------|----------------|--------|-------|--------|--------|----------------|--------|----------------|-------|--------|--------|--------|--------|--------|-------------|------------|--------|--------|-------------|----------------------|------------------|-------|----------------|----------------|-------------|-------------|----------------|
| Column  |  |                    |         |        |       | 138.980            | 1.134 | 1      | 3 | 3               | 3 | 0      | 111.369            |                |       |                | 1.115  | 0.881 |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             | 3.429          |
| State   Stat    |  |                    |         |        |       | 137.700            | 1.151 | 1      | 3 | 3               | 3 | 0      | 111.369            |                |       |                |        | 0.878 |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             | 3.648          |
| State   |  |                    |         |        |       |                    | 1.188 | 1      | 3 | 3               | 3 | 0      | 111.369            |                |       |                | 1.607  | 0.877 |        |        |                |        |                |       | 4.991  | 0.672  |        |        |        |             |            |        |        |             |                      |                  |       | 0.537          |                |             |             | 3.674          |
| State   Stat    |  |                    |         |        |       |                    | 1.252 | 1      | 3 | 3               | 3 | 0      | 111.369            |                |       |                | 1.771  | 0.875 |        | 2.646  |                |        |                |       | 4.892  | 0.689  |        |        | 0.183  | 1.402       | 3.246 0.0  |        |        |             |                      |                  |       |                | 0.827          |             | 5.291       | 3.591          |
| State   Stat    |  |                    |         |        |       |                    | 1,252 | 1      | 3 | 3               | 3 | 0      | 111,369            |                |       |                | 2,100  | 0.873 |        | 2.693  | 0.000          |        |                | 1.616 | 4.951  | 0.685  |        |        | 0.198  | 1.423       | 3.244 n.r  | 00 n   |        |             |                      |                  |       |                | 0.831          | 0.534       | 5.340       | 3.613          |
|   | 208 7.700 25.262                       | -7.700             | -25.262 | 6.609  | 0.079 | 145.650            | 1.195 | 1      | 3 | 3               | 3 | ő      | 111.369            | 1.446          |       |                | 2.264  | 0.871 |        |        | 0.000          | 0.000  |                | 1.530 |        | 0.677  | 0.867  |        | 0.198  | 1.501       | 3.218 0.0  | 00 0   |        |             | 0.000                |                  |       | 0.560          |                | 0.552       | 5.518       | 3.757          |
|   |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    |                |       |                |        | 0.870 |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| State   Stat    |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    |                |       |                | 2.592  |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| State   Stat    |  |                    |         |        |       |                    | 1.100 | 1      | 3 | 3               | 3 | 0      |                    |                | 1.007 |                | 2.756  | 0.000 | U.2.4U |        | 0.000          |        |                |       |        |        |        |        | 0.201  | 1.010       | J.E.11 U.C | 00     |        |             |                      | 0.000            |       | 0.070          | 0.000          | 0.000       | 0.000       |                |
| \tayler \tayle  |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 1   |  |                    |         |        |       |                    | 1.190 | 1      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| Part  |  |                    |         |        |       |                    | 1.124 | 1      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             | 4.126          |
| \tayle \t  |  |                    |         |        |       |                    | 1.146 | 1      | 3 | 3               | 3 | 0      |                    |                | 1.407 | 0.112          | 3.5//  |       |        |        |                |        |                |       |        |        | 0.867  |        |        |             |            |        |        |             |                      |                  | 0.376 | 0.622          | 0.904          | 0.591       | 5.990       | 4.010          |
| Column  | 218 8.200 26.903                       | -8.200             | -26.903 | 7.442  | 0.072 | 163,740            |       | 1      | 3 | 3               | 3 | 0      | 111.369            | 1.537          |       | 0.122          |        | 0.859 | 3.565  | 3.062  | 0.000          | 0.000  | 4.175          | 1.219 | 5.906  | 0.671  | 0.845  | 0.647  | 0.223  | 1.648       | 3.134 0.0  | 00 0   | .000   | 0.000 0.0   | 0.000                | 0.000            |       |                |                |             |             | 4.175          |
| 14  |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    | 1.546          |       | 0.127          | 4.069  |       |        | 3.062  |                |        |                |       |        |        |        |        |        | 1.580       | 3.143 0.0  |        |        |             |                      |                  |       |                |                |             |             |                |
| State   Stat    |  |                    |         |        |       |                    |       | 1 1    | 3 | 3               | 3 | 0      |                    |                |       | 0.132          | 4.233  |       |        |        |                |        |                |       |        |        |        |        |        | 1.707       | 3.114 0.0  |        |        |             |                      |                  |       |                |                |             |             |                |
| Column  |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| Teal  |  |                    |         |        |       |                    |       | 1      | 3 | 3               | 3 | 0      |                    |                |       | 0.147          |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| Part  |  |                    |         |        |       |                    | 1.353 | 5      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 14  |  | -8.550<br>-8.600   |         |        |       |                    |       | 5 8    | 3 | 3 8             | 3 | 3      | 114.551<br>120.01F |                |       | 0.158          |        |       |        |        |                | 2.386  |                | 2.452 |        |        | 0.577  |        | U.525  | 3.796       | 5.100 65.  |        |        | U.U00 0.0   | UU 0.000             | 0.000<br>215.152 | 0.636 |                | 1.495          |             |             |                |
| 1   | 227 8.650 28.379                       | -8.650             |         |        |       |                    |       | 9      | 6 | 9               | 6 | 6      | 124.097            |                |       |                |        |       |        |        |                |        |                |       |        |        | 0.004  |        |        |             |            |        |        | 39.834 -0.0 | 83 2.239             | 289.707          |       |                | 0.000          |             |             | 105.029        |
| Section   Sect    |  |                    |         |        | 0.443 |                    |       | 9      | 6 | 9               | 6 | 6      | 124.097            |                |       |                | 5.547  |       |        |        | 23.851         | 20.184 |                |       |        |        | 0.002  |        |        |             |            | 31 70  |        |             |                      | 303.223          | 0.000 | 0.000          | 0.000          | 11.196      |             | 111.959        |
| 1   |  |                    |         |        | 0.541 |                    |       | 8      | 5 | 8               | 6 | 5      |                    |                |       |                | 5.711  |       |        |        | 13.400         | 11.320 |                |       |        |        |        |        |        |             |            | 712 48 |        |             |                      | 195.933          | 0.000 | 0.000          | 0.000          | 5.236       |             | 52.363         |
| 1   |  |                    |         |        |       |                    |       | 7      | 5 | 8               | 6 | 5      | 124.097            |                |       |                |        |       |        |        |                |        |                |       |        |        | 0.000  |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 1   | 232 8.900 29.199                       | -8.900             | -29.199 | 40.164 | 1.509 | 5.430              | 3.757 | 5      | 4 | 8               | 5 | 3      | 114.551            | 1.671          |       |                | 6.203  | 0.841 | 19.239 | 16.175 | 11.194         | 7.584  | 26.068         | 3.920 | 38.494 | -0.001 | -0.001 | 26.085 | 3.831  | 27.085      | 2.740 42.  | 505 0  | .000   | 0.000 0.0   | 0.000                | 0.000            | 2.567 | 0.000          | 10.000         |             | 32.350      | 26.068         |
| State   Stat    |  |                    |         |        |       |                    |       | 3      | 3 | 7               | 5 | 3      |                    |                |       |                |        |       |        |        |                |        |                |       | 24.558 | -0.000 |        |        |        |             |            |        |        |             |                      |                  | 1.638 | 0.000          |                |             |             |                |
| State   Stat    |  |                    |         |        |       |                    |       | 3      | 3 | 6               | 5 | 3      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 1   |  |                    |         |        |       |                    |       | 5      | 4 | 6               | 5 | 3      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 1   | 237 9.150 30.019                       | -9.150             | -30.019 | 14.904 | 0.766 | 71.050             | 5.140 | 3      | 3 | 5               | 3 | 2      | 111.369            | 1.717          | 1.498 | 0.219          | 7.024  | 0.835 | 14.278 | 11.921 | 5.564          | 3.432  | 8.807          | 5.809 | 13.187 | 0.134  | 0.152  | 7.471  | 1.215  | 8.472       | 3.211 73.  | 388 0  | .000   | 0.000 0.0   | 0.000                | 0.000            | 0.880 | 0.250          | 2.137          | 1.192       | 11.921      | 8.807          |
| 1   |  |                    |         |        |       |                    |       | 3      | 3 | 3               | 3 | 2      | 111.369            |                |       |                |        |       |        |        | 4.336          | 2.540  | 6.158          | 4.834 | 9.246  |        | 0.377  |        |        |             |            |        | .000   | 0.000 0.0   | 0.000                | 0.000            |       |                |                |             |             |                |
| 1   | 239 9.250 30.347                       |                    | -30.347 |        |       | 142.940            |       | 5      | 3 | 3               | 3 | 2      | 114.551            |                | 1.506 | 0.229          | 7.352  |       |        | 3.690  |                | 1.996  | 4.993<br>4.64E | 2.953 | 7.517  | 0.458  | 0.563  |        | 0.459  | 3.182       | 3.246 76.  | 333 0  | 000    |             | 0.000                | 0.000            | 0.501 |                |                |             |             |                |
| Section   Sect    | 241 9.350 30.675                       | -9.350             | -30.675 | 8.389  | 0.164 | 139.180            | 1.955 | 5      | 3 | 3               | 3 | 2      | 114.551            |                | 1.515 |                |        |       |        | 3.336  |                | 1.764  | 4.382          | 2.472 | 6.635  | 0.480  | 0.619  |        |        |             | 3.256 77   |        | .000   | 0.000 0.0   |                      | 0.000            |       | 0.526          | 0.976          |             |             |                |
| State   Property   P    | 242 9.400 30.840                       | -9.400             | -30.840 | 8.412  | 0.150 | 134.910            |       | 5      | 3 | 3               | 3 | 2      | 114.551            | 1.764          |       | 0.245          | 7.845  | 0.829 | 4.029  | 3.341  |                | 1.738  | 4.379          | 2.256 | 6.649  | 0.472  | 0.597  | 1.766  | 0.402  | 2.767       | 3.237 75.  | 394 0  | .000   | 0.000 0.0   | 0.000                | 0.000            | 0.443 |                |                | 0.668       | 6.682       | 4.379          |
| 1   |  |                    |         |        |       |                    |       | 5      | 3 | 3               | 3 | 2      |                    |                |       |                |        |       |        |        | 3.227          |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 3 - 1   |  |                    | -31.168 |        |       |                    |       | 5      | 3 | 3               | 3 | 3      | 114.551            |                | 1.528 | 0.255          |        | 0.827 | 4.398  | 3.636  |                | 1.825  |                |       | 7.400  | 0.436  | 0.541  | 2.224  | 0.472  | 3.225       | 3.163 70.  |        | .000   | 0.000 0.0   | 0.000                | 0.000            |       |                |                |             |             |                |
| The column   The    |  |                    |         |        |       |                    |       | 5      | 3 | 3               | 3 | 3      |                    |                | 1.536 | 0.265          |        |       |        |        |                | 2.001  | 5.526          |       |        |        |        |        |        |             | 3.105 65.  |        |        |             |                      |                  |       |                |                |             |             |                |
| 1   | 247 9.650 31.660                       | -9.650             |         |        |       |                    |       | 5      | 3 | 3               | 3 | 1      |                    |                |       |                | 8.665  |       |        |        |                |        |                |       |        |        | 0.771  |        |        |             |            |        |        |             |                      |                  |       |                |                | 0.688       |             |                |
| Section   Sect    |  |                    |         |        |       |                    |       | 5      | 3 | 3               | 3 | 0      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| State   Stat    |  |                    |         |        |       |                    |       |        | 3 | 3               |   | 1      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 14  | 251 9.850 32.316                       | -9.850             |         |        |       |                    |       | 6      | 4 | 3               |   | 1      | 114.551            |                |       |                |        |       |        |        |                | 1.915  | 5.815          |       |        |        | 0.676  | 1.887  |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 2   |  |                    |         |        |       |                    |       | 6      | 3 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 25   1866   1876  | 253 9.950 32.644                       | -9.950             | -32.644 |        | 0.080 | 197.190            |       | 6      | 3 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                | 1.792  | 5.305          | 0.963 | 8.305  | 0.576  | 0.705  |        | 0.385  | 2.566       |            |        | .000 2 | 27.508 0.2  | 0.000                | 0.000            | 0.000 | 0.000          |                |             | 7.957       | 5.305          |
| 22 10 10 10 10 10 10 10 10 10 10 10 10 10   | 254 10.000 32.808                      | -10.000            | -32.808 | 10.144 | 0.085 | 195.430            |       | 6      | 3 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                | 1.795  | 5.268          | 1.028 | 8.268  |        | 0.746  |        | 0.352  | 2.341       |            | 289 0  | 000    | 27.489 0.2  | 20 0.000             | 0.000            | 0.000 |                |                |             | 7.925       | 5.268          |
| 20   1500   1540  | 256 10.100 33.136                      | -10.100            | -33.136 | 10.854 | 0.095 | 212.100            | 0.875 | 6      | 3 | 3               | 3 | 1      | 114.551            | 1.895          | 1.579 | 0.317          | 10.142 | 0.813 | 4.159  | 3.383  | 3.490          | 1.906  | 5.677          | 1.060 | 8.960  | 0.581  | 0.704  | 1.681  | 0.406  | 2.683       | 2.988 57.  | 568 0  | .000   | 27.799 0.19 | 97 0.000             | 0.000            | 0.000 | 0.000          | 0.000          | 0.846       | 8.457       | 5.677          |
| 20   15   15   15   15   15   15   15   1   | 257 10.150 33.300                      | -10.150            |         | 11.422 |       |                    |       | 6      | 4 | 3               | 3 | 1      | 114.551            | 1.905          |       |                |        |       |        | 3.555  |                | 1.954  | 6.015          |       | 9.518  |        | 0.734  | 1.597  | 0.394  |             |            |        | .000 2 | 28.036 0.2  |                      |                  |       |                |                |             |             | 6.015          |
| 20 1000 1000 1000 1000 1000 1000 1000 1   |  |                    |         | 11.731 |       |                    |       | 6      | 4 | 3               | 3 | 1      |                    |                | 1.587 | 0.327          |        |       |        |        |                |        |                |       |        |        |        | 1.913  | 0.443  |             | 2.905 52.  |        |        |             |                      |                  |       |                |                |             |             | 6.188<br>E 702 |
| 30   1500  |  |                    |         |        |       |                    |       | 6      | 3 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                |        | 5.627          |       |        |        | 0.759  | 1.358  | 0.412  |             |            |        |        | 27.798 0.2  |                      |                  |       |                |                |             |             |                |
| \$\\\ \frac{1}{2}\\ \frac{1}\\ \frac{1}{2}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ \frac{1}\\ | 261 10.350 33.956                      | -10.350            |         |        |       |                    |       | 6      | 4 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        | 0.416  | 2.717       | 2.935 54.  |        |        |             |                      |                  | 0.000 | 0.000          | 0.000          |             |             |                |
| 28   1500   1544   1500   1544   1500  |  |                    |         |        |       |                    |       | 6      | 4 | 3               | 3 | 3      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |  |                    |         |        |       |                    |       | 6      | 4 | 4               | 3 | 4      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 28   1500   1517   1518   1510  | 265 10.550 34.612                      | -10.550            | -34.612 | 14.627 | 0.168 | 188.600            | 1.149 | 6      | 4 | 4               | 3 | 3      | 114.551            | 1.980          | 1.617 | 0.363          | 11.620 | 0.804 |        | 4.504  | 4.476          | 2.499  | 7.824          | 1.328 | 12.648 | 0.378  | 0.437  | 4.405  | 0.837  | 5.406       | 2.906 52.  | 355 0  | .000   | 29.167 0.0  | 93 0.000             | 0.000            | 0.000 | 0.000          | 0.000          | 1.126       | 11.260      | 7.824          |
| 50  | 266 10.600 34.776                      |                    |         |        |       |                    |       | 6      | 4 | 3               | 3 | 1      | 114.551            |                |       |                |        |       |        |        |                | 2.218  | 6.971          |       | 11.300 | 0.469  | 0.551  |        | 0.641  | 4.131       |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 20  |  | -10.650            | -34.941 |        |       |                    |       | 6      | 4 | 3               | 3 | 3      | 114.551            | 1.999          |       |                |        |       |        | 4.653  |                | 2.552  | 8.094          |       | 13.155 | 0.465  | 0.535  |        |        |             |            |        |        | 29.323 0.1  | 11 0.000             | 0.000            | 0.000 |                |                |             |             |                |
| 72   1869   28.53   1989   186  | 268 10.700 35.105<br>269 10.750 35.260 | -10.700            |         | 19.749 |       |                    |       | 6      | 4 | 5               | 3 | 4      | 114,551            | 2.008<br>2.018 |       | 0.378          |        |       | 7.568  | 6,049  | 5,555          |        | 10.781         |       |        |        | 0.236  | 8.734  |        |             |            |        | .000   | 30.576 nn   | 32 0.000             | 0.000            | 0.000 |                |                | 1.512       |             |                |
| 72   10,000   35,007   10,000   35,007   10,000   35,000   | 270 10.800 35.433                      | -10.800            | -35.433 | 16.239 |       | 118.440            |       | 6      | 4 | 4               | 3 | 4      |                    | 2.027          |       |                | 12.440 |       | 6.223  | 4.968  | 4.721          | 2.633  | 8.677          | 1.034 | 14.213 |        | 0.233  | 6.656  |        |             |            |        | .000   | 29.635 0.0  | 57 0.000             | 0.000            | 0.000 | 0.000          |                |             |             |                |
| 1.1   1.2     |  |                    |         | 12.707 | 0.118 |                    | 0.929 | 6      | 4 | 4               | 3 | 1      | 114.551            |                | 1.643 | 0.393          |        | 0.797 |        |        | 3.974          |        |                |       |        | 0.338  | 0.402  |        | 0.769  | 4.885       | 2.942 54.  | 87 0   |        |             |                      | 0.000            |       |                | 0.000          | 0.971       | 9.705       | 6.498          |
| 72   1150   75.00   75  |  |                    |         |        |       |                    |       | - 6    | 4 | 3               | 3 | 1      |                    | 2.046          |       |                |        |       | 4.576  | 3.643  | 3.771          | 1.981  |                |       | 9.895  |        | 0.556  | 2.666  |        |             |            | 729 0  | .000   | 28.153 0.1  | 55 0.000             | 0.000            | 0.000 |                |                |             |             | 6.010          |
| 11   12   13   13   13   14   14   15   15   15   15   15   15  |  |                    |         | 11.500 |       |                    |       | 6      | 3 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        | 3.761          |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             | 5.803          |
| 727   11.50   35.81   21.11   37.82   37.81   21.12   37.82   37.81   37.82   37.81   37.82   37.81   37.82   37.82   37.81   37.82     | 275 11.050 36.253                      |                    | -36.253 |        | 0.114 | 223.200            | 0.954 | 6      | 3 | 3               | 3 |        | 114.551            | 2.074          | 1.660 | 0.414          | 13.261 | 0.793 | 4.581  | 3.633  | 3.836          | 1.995  | 5.954          | 1.154 | 9.880  | 0.548  | 0.664  | 2.003  | 0.478  | 3.005       | 2.985 57   | 154 0  | .000   | 28.140 0.1  | 76 0.000             | 0.000            | 0.000 | 0.000          |                | 0.908       | 9.082       | 5.954          |
| 729   1150   35.745   -1150   35.745   -1150   -1550   -1250    |  |                    |         |        |       |                    |       | 6      | 4 | 3               | 3 | 1      |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 1750       |  |                    |         |        |       |                    |       | 6      | 4 | 3               | 3 | $\Box$ |                    |                |       |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                | 0.000          |             |             | 6.716          |
| 220   11.50   37.73   -11.50   -37.73   -37.73    |  |                    |         |        |       | 210.810            |       | 6      | 3 | 3               | 3 | 1      | 114.551            |                |       | 0.434          |        |       | 4.884  |        |                |        | 6.344          |       | 10.635 |        | 0.578  |        |        |             |            |        |        |             |                      |                  |       |                | 0.000          | 0.964       | 9.635       | 6.344          |
| 222   11.50   37.40   -1.10     | 280 11.300 37.073                      | -11.300            | -37.073 |        | 0.118 | 214.390            |       | 6      | 4 | 3               | 3 |        | 114.551            | 2.121          | 1.681 | 0.439          |        |       | 4.847  | 3.820  |                | 2.066  | 6.264          | 1.121 | 10.528 |        | 0.594  | 2.542  |        |             | 2.959 55.  |        | .000   | 28.380 0.1  | 55 0.000             |                  | 0.000 |                |                | 0.955       | 9.549       |                |
| 28   1150   37.58   57.78   58.68   5.00   5  | 281 11.350 37.237                      |                    | -37.237 | 12.442 | 0.118 | 215.000            |       | 6      | 3 | 3               | 3 | 1      | 114.551            | 2.130          |       |                |        |       |        | 3.753  | 3.963          |        | 6.120          |       | 10.313 |        | 0.608  |        |        |             |            |        |        | 28.295 0.1  |                      | 0.000            | 0.000 |                | 0.000          |             |             |                |
| 28   11580   37.29   11580   37.29   11580   37.29   11580   37.29   11580   37.29   11580   37.29   11580   37.29   11580   37.29   11580   38.29   11580   3  |  |                    |         | 14.201 |       |                    |       | 6      | 3 | 3               | 3 | 1 3    |                    |                |       |                |        |       |        |        | 4.113<br>4.601 |        |                |       |        |        |        |        |        |             |            |        |        |             |                      |                  |       |                | 0.000<br>0.000 |             |             | 7.117          |
| 28   1150   3750   3750   4150   3750   4150   3750   4150  | 284 11.500 37.729                      | -11.500            | -37.729 | 16.884 | 0.353 | 186.410            | 2.091 | 5      | 3 | 4               | 3 | 3      | 114.551            | 2.159          | 1.699 | 0.460          | 14.738 | 0.784 | 8.087  | 6.341  | 5.453          | 2.924  | 8.673          | 2.397 | 14.726 | 0.318  | 0.364  | 5.516  | 1.060  | 6.517       | 2.995 58.  | 138 0  | .000   | 0.000 0.0   | 0.000                | 0.000            | 0.982 | 0.670          | 2.094          | 1.268       | 12.682      | 8.673          |
| 28   11.70   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   38.21   5.11   5.15   5.11   5.15   5.11   5.15   5.11   5.15   5.11   5.15   5.15   5.11   5.15   5.15   5.11   5.15   5.  |  |                    |         | 22.665 | 0.360 |                    |       | 6      | 4 | 5               | 4 | 4      | 114.551            |                | 1.703 |                |        | 0.783 | 8.685  |        | 6.537          |        |                |       |        | 0.168  | 0.186  |        | 1.762  |             | 2.802 46.  |        |        |             |                      |                  |       |                | 0.000          |             | 17.003      | 12.042         |
| 288   11-70   38-88   24-70   24-70   25-70     |  |                    |         | 33.064 |       |                    | 0.007 |        | 5 | - 6             | 5 | 5      | 117.733            | 2.177          | 1.707 |                |        | 0.782 |        |        | 7.493          |        |                |       |        | 0.064  |        |        | 2.921  |             | 2.312 22.  |        |        |             |                      |                  |       |                | 0.000          |             | 24.773      | 24.773         |
| 28 11.50 38.54 51.70 18.54 51.55 18.54 51.55 18.54 18.  |  | -11.700            |         |        |       |                    | 1.086 | +      | 4 | <del>- /-</del> | 5 | 5      | 117./33            |                | 1.712 |                | 15.395 | 0.780 |        |        | 7.163          |        |                |       |        | 0.030  |        |        | 2.455  |             |            |        |        |             |                      |                  |       |                |                |             |             |                |
| 29 1150 3877 -1180 3887 11  | 289 11.750 38.549                      | -11.750            |         | 16.988 |       |                    | 2.101 | 5      | 3 | 5               | 4 | 3      | 114.551            |                | 1.721 | 0.486          | 15.559 | 0.779 |        |        | 5.504          |        |                |       |        | 0.103  |        |        | 1.413  |             |            | 179 0  | .000   |             |                      |                  |       |                | 2.069          | 1.268       |             |                |
| 25   1150   25   1150   25   1150   25   1150   25   25   1150   25   25   25   25   25   25   25   |  |                    |         |        |       |                    |       | Б      | 3 | 4               | 3 | 3      |                    |                | 1.725 |                | 15.723 | 0.778 |        |        |                |        |                |       |        | 0.220  |        |        | 1.114  |             |            |        |        |             |                      |                  |       |                |                |             |             | 7.730          |
| 52   15.05   1  |  |                    |         |        |       | 186.290            | 1.403 | - 6    | 3 | 4               | 3 | 3      |                    |                | 1.729 |                |        | 0.777 |        |        |                |        |                |       |        |        |        |        | 0.918  | 5.541       | 2.959 55.  |        |        |             |                      |                  |       | 0.000          | 0.000          | 1.146       |             | 7.618          |
| 25   1250   39.70   71.00   39.70   39  |  | -11.900<br>-11.950 |         | 22,453 |       | 198.110<br>109.400 | 1,830 | 5<br>B | 3 | 5               | 3 | 3      | 114,551            |                | 1./34 | 0.501<br>0.508 | 16.051 | 0.776 |        |        | 5.255<br>6.648 |        |                |       |        | 0.359  |        |        | 1.824  | 10.960      | 2.849 dx   | su/ 0  | .000   | 31.042      |                      | 0.000            | 0.909 | 0.711<br>0.000 | 0.000          | 1.1/9       |             | 11.634         |
| 28 1/250 27   | 294 12.000 39.370                      |                    | -39.370 |        | 0.373 | 72.480             | 1.855 | 6      | 4 | 5               | 4 | 4      |                    | 2.253          | 1.742 | 0.511          |        | 0.774 | 7.707  | 5.967  |                | 3.268  | 10.256         | 2.088 | 17.860 | 0.087  | 0.098  | 9.250  | 1.710  | 10.250      | 2.901 52   | J81 U  |        |             | 0.000                |                  |       |                | 0.000          |             | 14.918      | 10.256         |
| 25g   12150   39.862   -12.190   -39.862   39.72   0.010   70.790   0.025   8   0   7   5   0   120.915   2.282   1.755   0.527   16.817   0.711   9.151   7.388   8.023   6.189   21.340   0.027   37.441   0.042   0.045   20.381   3.594   21.381   2.033   5.000   32.199   33.744   0.448   0.000  | 295 12.050 39.534                      | -12.050            | -39.534 | 19.288 | 0.435 | 116.650            | 2.255 | 5      | 3 | 5               | 3 | 3      | 114.551            | 2.263          | 1.746 | 0.516          | 16.544 | 0.773 | 9.239  | 7.144  | 6.124          | 3.232  | 9.753          | 2.555 | 17.026 |        | 0.184  | 7.963  |        |             |            | 287 0  | .000   | 0.000 0.0   | 0.000                | 0.000            | 1.136 | 0.391          |                | 1.429       | 14.289      | 9.753          |
|   | 296 12.100 39.698                      |                    |         | 27.452 |       | 86.860             | 1.679 | 6      | 4 | 6               | 4 | 4      | 114.551            |                | 1.751 | 0.521          | 16.708 | 0.772 | 10.520 |        | 7.679          |        | 14.390         | 1.831 |        |        |        | 13.137 | 2.370  | 14.138      | 2.747 42.  | 974 0  |        |             |                      |                  |       | 0.000          | 0.000          |             | 20.312      | 14.390         |
| 1 0 0 100  | 297 12.150 39.862                      |                    |         | 39./22 | 0.010 | 70.750<br>52.960   | 0.025 | 8      | 0 | 7               | 5 |        | 120.915            | 2.282          | 1./55 | 0.527          | 16.872 | 0.771 | 9.513  |        | 8.023          |        | 21.340         | 0.027 | 43 220 | 0.042  | 0.045  | 20.381 | 3.594  | 24.381      | 2.033 5.0  | 00 32  | :.139  | 33.744 0.2  | 46 0.000<br>46 3.876 | 174 194          | 0.000 | 0.000          | 0.000          | 2.935       | 29.352      | 29.352         |
|   |  |                    |         |        | 2.310 |                    |       |        | · | <u> </u>        |   |        |                    |                | 00    |                |        |       |        |        |                |        |                |       |        |        |        |        |        |             | 0.0        |        |        | 3.2         | . 0.04.0             | 4.154            |       |                |                |             |             | —              |

| АВ   | C D  | E F G H I .  | I K   | L   | М  | N  | 0 P  | Q   | R   | S T   | U  | V   | W  | X  | Z  | AA  | AB  | AC   | AD .  | AE AF  | AG  | AH  | Al   | AJ  | AK   | AL   | AM   | AN  | AO   | AP /   | AQ   | AR   |
|--|--|--|---|---|--|--|--|---|---|---|--|---|--|--|--|---|---|--|---|--|---|---|--|---|--|--|--|---|--|--|--|--|
|  | Tec CPT Interpretations  |  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | retation Output - SCREENzW   | V Version 1.19 - Dec 18 2012   | _   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  | _  |  |
| 3 DAS Ver  | Version: W47   | All but Liquefaction Parameters (NLI)  | _   | 1   | 1  | +  | _  | -   | +   | <b>  </b>   | -  | 1   |  | <del>                                     </del>   | _  | 1   | _   | $\vdash$   |   |  | +   | -   | _  | $\vdash$  | <b>—</b>   | $\vdash$   |  | 1   |  |  | -+   |  |
| 5 Run ID:  | retation Format:   | All but Liquetaction Parameters (NLI)<br>1367593888  | _   | _   |  |  |  |   |   |   | _  |   |  |  | _  |   |   |  |   |  | _   | _   |  |   |  |  |  |   | _  |  | -  |  |
| 6 Job No:  |  | 13-54031   | _   | _   | _  |  |  | _   |   |   | 1 -  |   |  |  |  | _   |   |  |   |  | +   | <b>—</b>  |  |   |  |  |  |   |  |  | -  |  |
| 7 Client   |  | Schnabel   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 8 Project:   |  | James River Bank Stabilization   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 9 Facility:  | 7.   | James River Bank Stabilization   | _   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 10 Soundin   |  | CPT-02<br>184:T1500F15U500   | _   |   |  | -  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  | _  |  |
| 12 Operator  |  | BK-AS  | _   | _   | _  |  |  | _   | _   |   |  |   |  |  |  | _   |   |  |   |  | _   |   |  |   |  |  |  |   | _  |  | -  |  |
| 13 CPT Dat   | Date:  | May-02-2013  | _   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 14 CPT Tim   |  | 09:54  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 15 CPT File  | File:  | 13-54031_CP02.COR  | _   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 15 Tin Units   | nite:  | nof  | _   | _   | _  | <del>                                     </del>   |  |   | _   |   | _  |   |  |  |  | _   | _   |  |   |  | _   | -   |  |   |  |  |  | -   | _  |  | -+   |  |
| 18 Sleeve L  | e Units:   | tsf  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 19 PP Units  |  | ft   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | onversion to bar:  | 0.9580   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | e Conversion to bar:<br>onversion to meters:   | 0.9580   | _   |   |  | -  |  |   |   |   | _  |   |  |  |  |   |   |  |   |  |   | -   |  |   |  |  |  | -   |  |  | -  |  |
| 23 PP Com  | onversion to meters:   | 0.3050   | _   |   |  | <del>                                     </del>   |  |   |   |   | _  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 24   |  | N/A  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 25 Col 5 (E  | (Extra Module) Units   | N/A  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 26   |  |  | _   | 1   | _  | -  | _  |   | 1   |   |  |   | <b>□</b> □   |  | _  | _   | _   | -1   |   |  | _   | _   |  |   |  | <b> </b>   |  | -   |  |  |  |  |
| 27 Coord St<br>28 Coord To   | Source:  | GPS<br>LATLONG   | $\dashv$  | +   | +  | +  |  | -   | +   |   | +  | 1   |  |  | _  | +   | _   |  |   |  | +   | <del>                                     </del>  |  |   |  | $\vdash$   |  |   | -+   |  | -+   |  |
| 29 UTM Zor   |  | N/A  | _   | _   | _  |  |  | _   | _   |   | 1 -  |   |  |  |  | _   |   |  |   |  | +   | <b>—</b>  |  |   |  |  |  |   |  |  | -  |  |
|  | ng / Long:   | -76.458363   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | ing / Lat:   | 37.021022  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 32 Elevation   | tion:  | 0.000  |   | +   | -  | +  | _  | -   | +   | <b></b>   | 1  | 1   |  | <b>—</b> —   | _  | -   | -   | <b>—</b>   |   |  | +   | ⊢   |  |   | $\vdash$   |  |  | -   |  | -  |  |  |
| 34 Tin Met 4   | et Area Ratio:   | 0.80   | -   | +   | 1  | +  | -+   | -   | +   |   | -  |   |  |  | -  | 1   | 1   | -  | -+  |  | +   | 1   |  |   |  |  |  | 1   |  |  | -+   |  |
| 35 Unit Wei  | Veight of Soil Base:   | Based on Soil Zones  | $\blacksquare$  | L   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 36 Unit Wei  | Veight of Soil (Def):  | 19.00 kN/m*3 120.91 pcf<br>9.81 kN/m*3 62.43 pcf   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | Veight of Water:<br>brium U Profile Used:  | 9.81 kN/m*3 62.43 pcf  |   | +   | -  | +-+  | -+   | -   | +   |   | +  | 1   |  | <del></del>  |  | -   | -   |  |   |  | +   |   |  |   |  |  |  | -   | $\rightarrow$  |  | +  |  |
|  | Init Weight Profile Used:  | No l   | $\dashv$  | +   | 1  | +  | -  | -   | +   |   | +  |   |  |  | _  | 1   |   |  |   |  | 1   | 1   |  |   |  |  |  | 1   | -+   |  | -+   |  |
| 40 Water Ta  | r Table  | 5.79 m 19.00 ft  |   | 1   | 1  |  |  |   |   |   |  |   |  |  |  | 1   |   |  |   |  | 1   |   |  |   |  |  |  |   |  |  |  |  |
| 41 Averagin  | ging Interval:   | 0.00 m 0.00 ft   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 42   | actors Nkt and Ndu:  | 15.0 8.0   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | xp. and Limits:  | 0.50 0.00 1.70   | _   |   |  | -  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  | _  |  |
|  | Exp. and Limits:   | 0.50 0.00 1.70   | _   | _   | _  |  |  | _   | _   |   |  |   |  |  |  | _   | _   |  |   |  | _   | _   |  |   |  |  |  |   |  |  | -  |  |
| 46 State Pa  | Parameter M:   | 1.20   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
| 47 NC Su /   |  | 0.30   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | ive Density Method:  | All Sands - Jamilokowski (1985)<br>Kulhawy and Mayne (1990)  | _   |   |  | -  |  |   |   |   |  |   |  |  |  |   |   |  |   |  | _   | _   |  |   |  |  |  |   |  |  | -  |  |
|  | rigie metriou.   | Rullawy allu mayile (1990)   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  |  |  |
|  | gs Modulus Sand Type:  | Recent   |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   | 1   |  |   |  |  |  |   |  |  |  |  |
| 51 N160ic N  | gs Modulus Sand Type:<br>lc Method:  | Recent<br>Based on qc1n  |   |   |  |  |  |   |   |   |  |   |  |  |  |   |   |  |   |  |   |   |  |   |  |  |  |   |  |  | -+   |  |
| 51 N160ic N  | lc Method:   | Recent<br>Based on qc1n  | To 2007-  | 00**  |  |  |  |   |   |   |  | 100   | 1400 -   |  |  |   |   | 0/4 = :  |   | N  |   |   | DI.  |   | F  |  |  | 0   | 005  |  |  |  |
| 51 N160ic N<br>52<br>53 Depth Depth<br>54 m ft   | c Method:  | Recent Based on qc1n  Avg qt Avg fs Avg u Avg Rf SBT SB  isf isf ff %  | Tn SBT Bq   | SBT Bqn   |  |  | Stress EStre   |   |   | Cn N(60   |  | N60 (Ic)  | N160 (Ic)  | Norm: Qt Non   | n: Fr Net qt   | Delta U/qt  | Bq  | Q(1-Bq)  | qe qe   | Norm Ic  | FC %  | Dr<br>%   | Phi  |   | Es/qt  | Es tef   | Su (Nkt)   | Su (Ndu)  | OCR (  | qc1 (Cn)   | qc1  | qc1n   |
| 51 N1601c h 52 53 Depth Depth 54 m ft 55 0.050 0.164   | tc Method:  pth Elev Elev ft m ft 164 -0.050 -0.164  | tsf tsf ft % 9.043 0.218 0.410 2.411 5   | Tn SBT Bq   | SBT Bqn   | 8  | pcf<br>114.551   | tsf tsf<br>0.009 0.00  | tsf   | ft<br>0.000   | 1.700 4.3   | bpf<br>1 7.363   | bpf<br>2.612  | bpf<br>4.440   | 961.530 2.   | 6 tsf<br>413 9.033   | 0.001   | 0.001   | Q(1-Bq)<br>960.167   | 0.865 96  |  | %<br>46.273   | %   | deg<br>0.000   |   | 0.000  | tsf<br>0.000   | tsf<br>0.602   | tsf<br>0.002  | 10.000   | MPa<br>1.473 1   | 4.727  | 14.727   |
| 51 N160ic h 52 53 Depth Depth 54 m ft 55 0.050 0.164 56 0.100 0.328  | tc Method:  pth Elev Elev ft m ft 164 -0.050 -0.164 328 -0.100 -0.328  | tsf tsf ft % 9.043 0.218 0.410 2.411 5 19.186 0.311 1.010 1.621 6  | 8 5<br>0 7  | 7 0   | 8 0  | pcf<br>114.551<br>114.551  | tsf tsf<br>0.009 0.00<br>0.019 0.01  | tsf<br>09 0.000   | ft 0.000  | 1.700 4.33<br>1.700 7.33  | bpf<br>1 7.363<br>2 12.499   | bpf<br>2.612<br>4.602   | bpf<br>4.440<br>7.824  | 961.530 2.<br>1020.138 1.  | 6 tsf<br>413 9.033<br>523 19.168   | 0.001   | 0.001   | 960.167<br>1018.459  | 0.865 96<br>1.835 10  | 19.460 2.439   | %<br>46.273<br>28.014   | %<br>0.000<br>76.299  | deg<br>0.000<br>34.043   | -0.476  | 0.000  | tsf<br>0.000<br>70.641   | tsf<br>0.602<br>0.000  | 0.002<br>0.000  | 10.000   | MPa<br>1.473 1<br>3.125 3  | 4.727  | 14.727   |
| 51 N160lc h 52 53 Depth Depth 54 m ft 55 0.050 0.164 56 0.100 0.322 57 0.150 0.492   | tic Method:  pth Elev Elev ft m ft 1164 -0.050 -0.164 328 -0.100 -0.328 492 -0.150 -0.492  | tsf tsf  | 8 5<br>0 7<br>0 7   | SBT Bqn   |  | pcf<br>114.551<br>114.551<br>117.733   | tsf tsf<br>0.009 0.00<br>0.019 0.01<br>0.028 0.02  | tsf<br>09 0.000<br>19 0.000<br>28 0.000   | ft<br>0.000<br>0.000<br>0.000   | 1.700 4.33<br>1.700 7.33<br>1.700 10.0  | bpf<br>1 7.363<br>2 12.499<br>19 17.016  | bpf<br>2.612<br>4.602<br>6.682  | bpf<br>4.440<br>7.824<br>11.360  | 961.530 2.<br>1020.138 1.<br>1106.026 1.   | % tsf<br>413 9.033<br>323 19.168<br>105 31.316   | 0.001<br>0.002<br>0.001   | 0.001<br>0.002<br>0.001   | 960.167<br>1018.459<br>1105.221  | 0.865 96<br>1.835 10<br>3.001 11  | 19.460 2.439<br>06.221 2.168   | %<br>46.273<br>28.014<br>17.942   | %<br>0.000<br>76.299<br>84.491  | deg<br>0.000<br>34.043<br>36.388   | -0.476<br>-0.427  | 0.000<br>3.680<br>2.910  | tsf<br>0.000<br>70.641<br>91.254   | tsf<br>0.602<br>0.000<br>0.000   | tsf<br>0.002<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000   | MPa<br>1.473 1<br>3.125 3<br>5.105 5   | 4.727  | 14.727   |
| 51 N1601c 8<br>52 Depth Depth<br>54 m ft<br>55 0.060 0.164<br>56 0.100 0.322<br>57 0.150 0.492<br>58 0.200 0.656   | tic Method:  pth Elev Elev  ft m ft  164 -0.050 -0.164  328 -0.100 -0.328  492 -0.150 -0.492  656 -0.200 -0.656  | 1sf tsf ft % 9.043 0.218 0.410 2.411 5 19.186 0.311 1.010 1.621 6 31.345 0.346 0.730 1.104 7 32.983 0.347 0.520 1.052 7  | 8 5<br>0 7<br>0 7<br>6 7  | 7 0   | 8 0  | pcf<br>114.551<br>114.551<br>117.733<br>117.733  | tsf tsf<br>0.009 0.00<br>0.019 0.01<br>0.028 0.02<br>0.038 0.03  | tsf<br>09 0.000<br>19 0.000<br>28 0.000<br>38 0.000   | ft<br>0.000<br>0.000<br>0.000<br>0.000  | 1.700 4.33<br>1.700 7.33<br>1.700 10.0<br>1.700 10.5  | bpf<br>1 7.363<br>2 12.499<br>19 17.016<br>33 17.906   | bpf<br>2.612<br>4.602<br>6.682<br>6.946   | bpf<br>4.440<br>7.824<br>11.360<br>11.808  | 961.530 2.<br>1020.138 1.<br>1106.026 1.<br>867.672 1.   | % tsf<br>413 9.033<br>523 19.168<br>105 31.316<br>063 32.945   | 0.001<br>0.002<br>0.001<br>0.000  | 0.001<br>0.002<br>0.001<br>0.000  | 960.167<br>1018.459<br>1105.221<br>867.245   | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86  | 119.460 2.439<br>06.221 2.168<br>58.245 2.138  | %<br>46.273<br>28.014<br>17.942<br>16.981   | %<br>0.000<br>76.299<br>84.491<br>81.746  | deg<br>0.000<br>34.043<br>36.388<br>36.631   | -0.476<br>-0.427<br>-0.398  | 0.000<br>3.680<br>2.910<br>2.835   | tsf<br>0.000<br>70.641<br>91.254<br>93.541   | tsf<br>0.602<br>0.000<br>0.000<br>0.000  | tsf<br>0.002<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000  | MPa 1.473 1.3.125 3 5.105 5 5.372 5  | 4.727<br>1.247<br>1.048<br>3.717   | 14.727<br>31.247<br>51.048<br>53.717   |
| 51 N160lc ll<br>52 Depth Depth<br>53 Depth ft<br>54 m ft<br>55 0.060 0.164<br>56 0.100 0.322<br>57 0.150 0.492<br>58 0.200 0.656<br>59 0.250 0.822   | tic Method:  pth Elev Elev  ft m ft  164 -0.050 -0.164  328 -0.100 -0.328  492 -0.150 -0.492  656 -0.200 -0.656  | 18/ 18/ 18/ 18/ 18/ 18/ 18/ 18/ 18/ 18/  | 8 5<br>0 7<br>0 7<br>6 7<br>6 7   | 7<br>0<br>0<br>7  | 8 0  | pcf<br>114.551<br>114.551<br>117.733<br>117.733  | tsf tsf<br>0.009 0.00<br>0.019 0.01<br>0.028 0.02  | tsf<br>09 0.000<br>19 0.000<br>28 0.000<br>38 0.000   | ft<br>0.000<br>0.000<br>0.000<br>0.000  | 1.700 4.33<br>1.700 7.33<br>1.700 10.0  | bpf<br>1 7.363<br>2 12.499<br>19 17.016<br>13 17.906<br>76 18.829  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256  | bpf<br>4.440<br>7.824<br>11.360  | 961.530 2.<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>727.274 1.   | % tsf<br>413 9.033<br>523 19.168<br>105 31.316<br>063 32.945<br>060 34.637   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828  | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 72  | 119.460 2.439<br>06.221 2.168<br>58.245 2.138<br>27.828 2.122  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871   | -0.476<br>-0.427<br>-0.398<br>-0.382  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858   | tsf<br>0.602<br>0.000<br>0.000<br>0.000<br>0.000   | tsf 0.002 0.000 0.000 0.000 0.000 0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa 1.473 1.3.125 3 5.105 5 5.372 5 5.649 5  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487  | 14.727   |
| 51 N160lc h 52 53 Depth Depth 54 m ft 55 0.050 0.16- 56 0.100 0.322 57 0.150 0.493 58 0.200 0.656 59 0.250 0.826 60 0.300 0.984 61 0.350 1.148   | pth Elev Elev ft m ft 1844 -0.050 -0.492 492 -0.150 -0.492 492 -0.200 -0.656 692 -0.250 -0.820 984 -0.350 -1.148 -0.350 -1.148   | ef tef 8 %, 9043 O218 O410 2411 5 9, 9043 O218 O410 2411 5 9, 9043 O218 O410 1241 5 9, 9043 O218 040 0728 0728 0728 0728 0728 0728 0728 072  | 8 5<br>0 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7   | 7<br>0<br>0<br>7<br>7<br>7  | 8<br>0<br>0<br>8<br>8<br>8                               | pd 114.551 114.551 117.733 117   | tsf tsf 0.009 0.00 0.019 0.01 0.028 0.02 0.038 0.03 0.048 0.04 0.057 0.05 0.067 0.06   | tsf<br>09 0.000<br>19 0.000<br>28 0.000<br>38 0.000<br>48 0.000<br>57 0.000<br>57 0.000   | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 1.700 4.33<br>1.700 7.33<br>1.700 10.0<br>1.700 10.5<br>1.700 11.0<br>1.700 11.0<br>1.700 11.9  | bpf<br>1 7.363<br>2 12.499<br>9 17.016<br>33 17.906<br>76 18.829<br>19 20.313<br>87 17.828   | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956  | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825  | 961.530 2.<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>727.274 1.<br>544.615 1.<br>491.542 1.   | % tsf<br>413 9.033<br>523 19.168<br>105 31.316<br>363 32.945<br>360 34.637<br>465 31.125   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760  | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 72<br>2.981 56<br>3.141 49  | 19.460 2.439<br>06.221 2.168<br>58.245 2.138<br>27.828 2.122<br>44.561 2.243<br>91.760 2.152   | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858<br>91.024<br>93.344   | tsf<br>0.602<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.473 1.<br>3.125 3<br>5.105 5<br>5.372 5<br>5.649 5<br>5.078 5<br>5.348 5  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484   |
| 51         N1601c h           52         Depth         Depth           53         Depth         Depth           54         m         ft           55         0.050         0.166           56         0.100         0.322           57         0.150         0.492           58         0.200         0.062           59         0.250         0.826           60         0.300         0.984           61         0.350         1.131           62         0.400         1.312  | ic Method:  pth Elev Elev ft m ft 4-0.050 -0.164 328 -0.100 -0.328 492 -0.150 -0.456 656 -0.200 -0.656 820 -0.250 -0.820 984 -0.300 -0.984 148 -0.350 -1.148 312 -0.400 -1.1312  | 15   | 8 5<br>0 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7  | 7<br>0<br>0<br>7<br>7<br>7<br>7   | 8<br>0<br>0<br>8<br>8<br>8<br>8                          | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>117.733<br>117.733  | tsf tsf<br>1.009 0.00<br>1.019 0.01<br>1.028 0.02<br>1.038 0.03<br>1.048 0.04<br>1.057 0.05<br>1.067 0.06  | tsf 0.000 19 0.000 28 0.000 38 0.000 48 0.000 48 0.000 67 0.000 67 0.000  | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 1,700 4.3;<br>1,700 7.3;<br>1,700 10.0<br>1,700 10.5;<br>1,700 11.0<br>1,700 11.9<br>1,700 10.4<br>1,700 10.5   | bpf bpf 7.363 22 12.499 17.016 18.829 19. 20.313 17.926 17.828 17.995 17.995 17.995 17.995   | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946   | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808  | 961.530 2.<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>727.274 1.<br>544.615 1.<br>491.542 1.   | % tsf<br>413 9.033<br>523 19.168<br>105 31.316<br>363 32.945<br>360 34.637<br>465 31.125   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760  | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 72<br>2.981 56<br>3.141 49  | 19.460 2.439<br>06.221 2.168<br>58.245 2.138<br>27.828 2.122<br>44.561 2.243<br>91.760 2.152   | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858<br>91.024<br>93.344   | tsf<br>0.602<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.473 1.<br>3.125 3<br>5.105 5<br>5.372 5<br>5.649 5<br>5.078 5<br>5.348 5  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986   |
| 51         N1600ch           52         Depth         Depth           54         m         ft           55         0.050         0.16           56         0.100         0.32           57         0.150         0.46           58         0.200         0.65           59         0.250         0.32           60         0.300         0.08           61         0.350         1.144           62         0.400         1.331           63         0.450         1.47           63         0.450         1.47  | ic Method:  pth Elev Elev ft m ft 184 -0.050 -0.164 328 -0.100 -0.328 492 -0.150 -0.492 556 -0.200 -0.656 820 -0.250 -0.820 894 -0.300 -0.894 148 -0.350 -1.148 312 -0.400 -1.312 476 -0.450 -1.476  | wf         st         s.           5A33         0.249         0.440         2.411         5           19:186         0.331         1.010         1.621         6         133,345         0.346         0.720         1.104         7         2.114         5         2.3283         0.347         0.520         1.662         7         7         3.3483         0.347         0.520         1.662         7         7         3.3484         0.369         0.698         7         7         3.3483         0.367         0.689         1.698         7         1.058         7         3.3483         0.336         1.679         1.056         7         7         2.7585         0.302         0.089         7         7         2.7585         0.302         0.859         1.008         7         7         2.7585         0.302         0.859         1.008         7         7         2.7585         0.302         0.859         1.008         7         7         2.7585         0.302         0.859         1.008         7         9         1.662         0.008         7         9         1.662         0.008         7         0.008         7         0.008         7         0.008         7 <td>8 5<br/>0 7<br/>0 7<br/>6 7<br/>6 7<br/>6 7<br/>6 7<br/>6 7</td> <td>7<br/>0<br/>0<br/>7<br/>7<br/>7<br/>7</td> <td>8 0 0 0 8 8 8 8 8 8 8 8 8</td> <td>pcf<br/>114.551<br/>114.551<br/>117.733<br/>117.733<br/>117.733<br/>114.551<br/>117.733<br/>117.733<br/>117.733</td> <td>tsf tsf<br/>0.009 0.00<br/>0.019 0.01<br/>0.028 0.02<br/>0.038 0.03<br/>0.048 0.04<br/>0.057 0.05<br/>0.067 0.06<br/>0.076 0.07</td> <td>tsf<br/>199 0.000<br/>199 0.000<br/>188 0.000<br/>188 0.000<br/>188 0.000<br/>187 0.000<br/>187 0.000<br/>187 0.000<br/>188 0.000<br/>188 0.000<br/>188 0.000<br/>188 0.000<br/>188 0.000<br/>189 0.0000<br/>189 0.000<br/>189 0.0000<br/>189 0.000<br/>189 0.0000<br/>189 0.000<br/>189 0.000<br/>189 0.000<br/>189 0.000<br/>189 0.000<br/>189 0.000<br/>189 0.000<br/>180 0.000<br/>180</td> <td>ft 0.000 0.0</td> <td>1,700 4.3:<br/>1,700 7.3:<br/>1,700 10.5<br/>1,700 10.5<br/>1,700 11.0<br/>1,700 11.0<br/>1,700 10.4<br/>1,700 10.5<br/>1,700 10.8</td> <td>bpf<br/>1 7.363<br/>2 12.499<br/>19 17.016<br/>13 17.906<br/>16 18.829<br/>19 20.313<br/>17 17.828<br/>17 17.828<br/>18 17.995<br/>19 14.975</td> <td>bpf<br/>2.612<br/>4.602<br/>6.682<br/>6.946<br/>7.256<br/>6.860<br/>6.956<br/>6.946<br/>5.989</td> <td>bpf<br/>4.440<br/>7.824<br/>11.360<br/>11.808<br/>12.335<br/>11.662<br/>11.825<br/>11.808<br/>10.181</td> <td>961.530 2.<br/>1020.138 1.<br/>1106.026 1.<br/>867.672 1.<br/>727.274 1.<br/>544.615 1.<br/>491.542 1.<br/>433.273 1.<br/>319.810 1.</td> <td>% tsf<br/>413 9.033<br/>523 19.168<br/>105 31.316<br/>563 32.945<br/>560 34.637<br/>465 31.125<br/>108 32.774<br/>509 33.072<br/>509 27.499</td> <td>0.001<br/>0.002<br/>0.001<br/>0.000<br/>0.001<br/>0.002<br/>0.002<br/>0.001</td> <td>0.001<br/>0.002<br/>0.001<br/>0.000<br/>0.001<br/>0.002<br/>0.002<br/>0.002</td> <td>960.167<br/>1018.459<br/>1105.221<br/>867.245<br/>726.828<br/>543.560<br/>490.760<br/>432.720<br/>319.501</td> <td>0.865 96<br/>1.835 10<br/>3.001 11<br/>3.158 86<br/>3.321 72<br/>2.981 55<br/>3.141 49<br/>3.172 43<br/>2.640 33</td> <td>119.460 2.438<br/>06.221 2.168<br/>58.245 2.138<br/>27.828 2.122<br/>44.561 2.243<br/>91.760 2.152<br/>33.721 2.126<br/>20.501 2.212</td> <td>%<br/>46.273<br/>28.014<br/>17.942<br/>16.981<br/>16.476<br/>20.485<br/>17.434<br/>16.596<br/>19.397</td> <td>%<br/>0.000<br/>76.299<br/>84.491<br/>81.746<br/>79.941<br/>74.277<br/>73.553<br/>71.882<br/>64.909</td> <td>deg<br/>0.000<br/>34.043<br/>36.388<br/>36.631<br/>36.871<br/>36.363<br/>36.610<br/>36.655<br/>35.777</td> <td>-0.476<br/>-0.427<br/>-0.398<br/>-0.382<br/>-0.396<br/>-0.350<br/>-0.327<br/>-0.308</td> <td>0.000<br/>3.680<br/>2.910<br/>2.835<br/>2.763<br/>2.918<br/>2.841<br/>2.828<br/>3.106</td> <td>tsf<br/>0.000<br/>70.641<br/>91.254<br/>93.541<br/>96.858<br/>91.024<br/>93.344<br/>93.768<br/>85.712</td> <td>tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000</td> <td>bsf 0.002 0.000 0.</td> <td>10.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000</td> <td>MPa 1.473 1. 1.473 1. 3.125 3 5.105 5 5.372 5 5.649 5 5.078 5 5.348 5 5.399 5 4.493 4</td> <td>4.727<br/>1.247<br/>1.048<br/>3.717<br/>6.487<br/>0.783<br/>3.484<br/>3.986<br/>4.925</td> <td>14.727<br/>31.247<br/>51.048<br/>53.717<br/>56.487<br/>50.783<br/>53.484<br/>53.986<br/>44.925</td> | 8 5<br>0 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7  | 7<br>0<br>0<br>7<br>7<br>7<br>7   | 8 0 0 0 8 8 8 8 8 8 8 8 8                                | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>117.733<br>117.733<br>117.733   | tsf tsf<br>0.009 0.00<br>0.019 0.01<br>0.028 0.02<br>0.038 0.03<br>0.048 0.04<br>0.057 0.05<br>0.067 0.06<br>0.076 0.07  | tsf<br>199 0.000<br>199 0.000<br>188 0.000<br>188 0.000<br>188 0.000<br>187 0.000<br>187 0.000<br>187 0.000<br>188 0.000<br>188 0.000<br>188 0.000<br>188 0.000<br>188 0.000<br>189 0.0000<br>189 0.000<br>189 0.0000<br>189 0.000<br>189 0.0000<br>189 0.000<br>189 0.000<br>189 0.000<br>189 0.000<br>189 0.000<br>189 0.000<br>189 0.000<br>180  | ft 0.000 0.0  | 1,700 4.3:<br>1,700 7.3:<br>1,700 10.5<br>1,700 10.5<br>1,700 11.0<br>1,700 11.0<br>1,700 10.4<br>1,700 10.5<br>1,700 10.8  | bpf<br>1 7.363<br>2 12.499<br>19 17.016<br>13 17.906<br>16 18.829<br>19 20.313<br>17 17.828<br>17 17.828<br>18 17.995<br>19 14.975   | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989  | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808<br>10.181  | 961.530 2.<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>727.274 1.<br>544.615 1.<br>491.542 1.<br>433.273 1.<br>319.810 1.   | % tsf<br>413 9.033<br>523 19.168<br>105 31.316<br>563 32.945<br>560 34.637<br>465 31.125<br>108 32.774<br>509 33.072<br>509 27.499   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.002  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501  | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 72<br>2.981 55<br>3.141 49<br>3.172 43<br>2.640 33  | 119.460 2.438<br>06.221 2.168<br>58.245 2.138<br>27.828 2.122<br>44.561 2.243<br>91.760 2.152<br>33.721 2.126<br>20.501 2.212  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.327<br>-0.308  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712   | tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | bsf 0.002 0.000 0.  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa 1.473 1. 1.473 1. 3.125 3 5.105 5 5.372 5 5.649 5 5.078 5 5.348 5 5.399 5 4.493 4  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925   |
| 51         N1600ch           52         2           53         Depth         Depth           54         m         ft           55         0.050         0.16-           56         0.100         0.32-           57         0.150         0.492-           58         0.200         0.656-           60         0.300         0.88-           61         0.350         1.144-           62         0.400         1.37-           63         0.450         1.47-           64         0.500         1.644-           65         0.550         1.50-   | the Method:    Elev  | wf sf 8 5, 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 8 5<br>0 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7  | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7   | 8<br>0<br>0<br>8<br>8<br>8<br>8<br>8<br>8                | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551  | tsf tsf 0.009 0.00 0.019 0.019 0.028 0.02 0.038 0.03 0.048 0.048 0.057 0.05 0.067 0.06 0.076 0.07 0.086 0.08 0.096 0.096   | tsf<br>09 0.000<br>19 0.000<br>28 0.000<br>38 0.000<br>38 0.000<br>57 0.000<br>5  | ft 0.000 0.0  | bp<br>1.700 4.3:<br>1.700 7.3:<br>1.700 10.0<br>1.700 10.5<br>1.700 11.0<br>1.700 11.0<br>1.700 10.4<br>1.700 10.5<br>1.700 8.81<br>1.700 8.63<br>1.700 6.33  | bpf 1 7.363 2 12.499 09 17.016 33 17.906 6 18.829 19 20.313 87 17.828 85 17.995 6 13.032 1 10.712  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377  | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808<br>10.181<br>7.861<br>5.740  | 961.530 2<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>544.615 1.<br>491.542 1.<br>433.273 1.<br>319.810 1.<br>124.400 1.  | 1413 9.033<br>1523 19.168<br>105 31.316<br>105 31.316<br>106 34.637<br>1465 31.125<br>108 32.774<br>109 33.072<br>109 27.499<br>109 27.499<br>109 109 109 109 109 109 109 109 109 109  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150  | 0.865 96<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 77<br>2.981 55<br>3.141 45<br>3.172 43<br>2.640 33<br>1.914 20<br>1.258 11  | 119.460 2.438<br>06.221 2.168<br>58.245 2.138<br>27.828 2.122<br>44.551 2.243<br>91.760 2.152<br>20.501 2.212<br>20.501 2.212<br>20.501 2.353  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000  | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.327<br>-0.308<br>-0.280<br>0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000  | tsf<br>0.602<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | lsf<br>0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000   | MPa<br>1.473 1.<br>3.125 3<br>5.105 5<br>5.372 5<br>5.649 5<br>5.078 5<br>5.348 5  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986   |
| 51 N1601ch 52 53 Depth Depth 54 m R 55 0.050 0.16- 56 0.100 0.322 58 0.200 0.655 58 0.200 0.656 59 0.250 0.320 60 0.300 0.364 61 0.300 1.341 62 0.400 1.331 63 0.450 1.474 65 0.550 1.666 65 0.550 1.566   | ic Nethod:    Charles   Elev   Elev  | str         str         5.           0.043         0.218         0.419         2.411         5.           19.186         0.311         1.010         1.621         6         1.313         1.014         7.         1.014         7.         2.211         6         1.313         1.046         7.0         1.014         7.         7.         3.2883         0.347         0.520         1.052         7         7         3.2883         0.347         0.520         1.052         7         7         3.1182         0.455         1.590         1.462         6         3.2484         0.354         1.050         1.005         7         3.3148         0.348         1.050         1.005         7         7         2.005         0.204         0.254         1.255         6         3.2474         0.250         0.205         7         7         2.005         7         7         2.005         0.204         0.254         1.255         0.238         0.205         0.274         5         0.218         0.249         0.257         5         1.255         0.238         0.220         1.974         5         0.212         0.260         0.279         0.274         0.256         0.278         0.27  | 8 5<br>0 7<br>0 7<br>6   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7  | 8<br>0<br>0<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>5<br>5 | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>114.551<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551   | tsf tsf 0.009 0.00 0.019 0.01 0.028 0.02 0.038 0.03 0.038 0.03 0.038 0.03 0.048 0.048 0.04 0.057 0.06 0.067 0.06 0.076 0.07 0.086 0.08 0.096 0.05 0.096 0.05 0.106 0.106   | tsf op 0.000  | ft 0.000 0.0  | 1,700 4.3.3<br>1,700 10.0<br>1,700 10.0<br>1,700 11.5<br>1,700 11.5<br>1,700 11.5<br>1,700 10.4<br>1,700 10.5<br>1,700 8.8<br>1,700 7.6<br>1,700 7.6<br>1,700 5.7   | bpf<br>1 7.363<br>2 12.499<br>19 17.016<br>33 17.906<br>76 18.829<br>19 20.313<br>37 17.828<br>35 17.995<br>9 14.975<br>6 13.032<br>1 10.712<br>4 9.816  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377<br>3.213   | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808<br>10.181<br>7.861<br>5.740<br>5.462   | 961.530 2. 1020.138 1. 1106.026 1. 867.672 1. 727.274 1. 544.615 1. 491.542 1. 433.273 1. 319.810 1. 208.456 1. 124.400 1.   | % tsf<br>413 9.033<br>523 19.168<br>5053 32.945<br>5060 34.637<br>465 31.25<br>5010 33.072<br>5098 27.499<br>27.499<br>241 19.910<br>13.050<br>1993 11.941   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245   | 0.865 99<br>1.835 10<br>3.001 11<br>3.158 88<br>3.321 72<br>2.981 5-<br>3.141 49<br>3.172 40<br>2.640 30<br>1.914 20<br>1.258 10<br>1.152 10  | 119.460 2.438<br>06.221 2.168<br>58.245 2.133<br>27.828 2.122<br>91.760 2.155<br>33.721 2.126<br>20.501 2.212<br>09.169 2.355<br>05.245 2.658  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.327<br>-0.308<br>-0.280<br>0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000  | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000   | tsf<br>0.602<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | ssf<br>0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa 1.473 1.3.125 3 5.105 5 5.372 5 6.649 5 5.078 5 5.348 5 5.399 6 4.493 4 3.258 3 3.258 3 1.1963 11.963 11.963 11.   | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633   |
| 51         N160le h           52         Depth         Depth           53         Depth         Depth           54         m         R           55         0.050         0.152           56         0.100         0.322           57         0.150         0.465           58         0.250         0.65           60         0.300         0.362           61         0.350         1.144           62         0.400         1.337           63         0.450         1.477           64         0.500         1.640           65         0.550         1.80           66         0.600         1.80           67         0.650         2.133  | the Method:    Charles   Elev   Elev   | wf wf 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | 8 5<br>0 7<br>6  | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6   | 8<br>0<br>0<br>8<br>8<br>8<br>8<br>8<br>8<br>5<br>5<br>5 | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551   | tsf tsf 0.009 0.00 0.019 0.01 0.019 0.02 0.028 0.02 0.038 0.03 0.048 0.04 0.057 0.05 0.067 0.05 0.066 0.05 0.096 0.05 0.105 0.104 0.114 0.111  | tsf 199 0.000 199 0.000 199 0.000 199 0.000 188 0.000 188 0.000 188 0.000 188 0.000 188 0.000 188 0.000 189 0.000 18  | ft 0.000 0.0  | 1.700 4.3;<br>1.700 7.3;<br>1.700 10.0<br>1.700 10.5;<br>1.700 11.0<br>1.700 11.0<br>1.700 10.4<br>1.700 10.5<br>1.700 8.8;<br>1.700 6.3;<br>1.700 6.3;   | bpf<br>1 7.363<br>2 12.499<br>19 17.016<br>33 17.906<br>76 18.829<br>19 20.313<br>37 17.828<br>35 17.995<br>9 14.975<br>6 13.032<br>1 10.712<br>4 9.816<br>1 11.375  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377<br>3.213   | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808<br>10.181<br>7.861<br>5.740<br>5.462<br>6.195  | 961.530 2. 1020.138 2. 1106.026 1. 166.026 1. 867.672 1. 727.274 1. 491.542 1. 491.542 1. 493.273 1. 208.456 1. 124.400 1. 104.469 1.  | % tsf 413 9.033 323 19.168 3053 31.316 3053 32.945 3060 34.637 31.125 31.08 32.774 3100 33.072 3098 27.499 241 19.910 373 11.941 3773 13.845   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573  | 0.865 99<br>1.835 10<br>3.001 11<br>3.158 88<br>3.321 77<br>2.981 54<br>3.172 43<br>2.640 33<br>1.914 22<br>1.258 12<br>1.334 11  | 119.460 2.438 106.221 2.168 158.245 2.132 127.826 2.122 14.561 2.243 191.760 2.152 133.721 2.126 120.501 2.212 199.169 2.357 125.150 2.586 12.573 2.613  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101<br>35.979   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.327<br>-0.308<br>-0.280<br>0.000<br>0.000  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000   | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000   | tsf 0.602 0.000 0. | ssf 0.002 0.000 0.  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000  | MPa<br>1.473 1.<br>3.125 3<br>5.105 5<br>5.372 5<br>5.649 5<br>5.078 5<br>5.378 5<br>5.399 5<br>4.493 4<br>3.258 3<br>2.142 2<br>1.963 2<br>2.275 2  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750   |
| N160lc   | tc Meritics  pth Elev Elev  ft m ft m ft  164 -0.050 -0.154  1928 -0.150 -0.454  1928 -0.150 -0.458  1920 -0.250 -0.856  1920 -0.250 -0.856  1920 -0.250 -0.856  1931 -0.350 -1.148  1031 -0.450 -1.312  1046 -0.550 -1.804  1059 -1.968  1050 -1.968  1031 -0.650 -1.968  1033 -0.650 -2.133  1039 -0.520 -1.968  | st         st         5.           9,043         0.219         0.419         2.411         5           19,186         0.311         1.010         1.621         6         1.314         1.010         7.621         6         1.010         7.021         6         1.010         7.021         6         1.010         7.022         7         3.2893         0.347         0.520         1.062         7         7         3.3484         0.387         0.680         1.068         7         7         3.1162         0.456         1.930         1.462         6         3.3484         0.334         1.050         1.008         7         7         3.3484         0.334         1.050         1.008         7         7         2.005         0.208         7         2.005         0.208         7         2.005         0.208         7         2.005         0.208         7         7         3.006         1.008         7         7         2.005         0.208         1.008         7         7         3.008         1.008         7         7         3.008         1.008         7         7         3.008         1.008         7         7         3.008         1.008         7   | 8 5 0 7 0 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 6 7 6 7 6 6 7 6 6 7 6 6 7 6 6 7 6 6 6 5 6 6 6 6   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6   | 8<br>0<br>0<br>8<br>8<br>8<br>8<br>8<br>8<br>5<br>5<br>5 | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551  | tsf tsf tsf 1,009 0.000  | tsf   tsf   0.000   0.  | ft 0.000 0.0  | 1.700 4.3<br>1.700 10.0<br>1.700 10.0<br>1.700 10.0<br>1.700 11.0<br>1.700 11.0<br>1.700 10.5<br>1.700 10.4<br>1.700 10.4<br>1.700 7.6<br>1.700 8.8<br>1.700 5.7<br>1.700 6.8   | bpf<br>11 7.363<br>22 12.499<br>09 17.016<br>033 17.906<br>18.829<br>19 20.313<br>17 17.828<br>35 17.996<br>19 14.975<br>6 13.032<br>1 10.712<br>4 9.816<br>1 11.375   | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377<br>3.213<br>3.644<br>4.401   | bpf<br>4.440<br>7.824<br>11.360<br>11.808<br>12.335<br>11.662<br>11.825<br>11.808<br>10.181<br>7.861<br>5.740<br>5.462<br>6.195<br>7.482   | 961.530 2. 1020.138 2. 1020.138 2. 107.274 1. 107.274 1. 491.542 1. 433.273 1. 139.810 1. 124.400 1. 104.469 1. 111.929 2.   | % tsf 413 9.033 19.168 1005 31.316 1053 32.945 1065 31.255 1018 32.774 1010 33.072 1098 27.499 1041 19.910 10570 13.050 1993 11.941 13.845 1073 13.845 1073 13.845   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>492.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389   | 0.865 99 1.835 10 3.001 11 3.158 86 3.321 7: 2.981 5- 3.141 45 3.172 4: 2.640 3: 1.914 20 1.258 11 1.152 10 1.334 11 1.713 13   | 119.460 2.438 06.221 2.168 68.245 2.138 68.245 2.132 44.561 2.243 91.760 2.152 33.721 2.122 20.501 2.212 199.169 2.35 25.150 2.580 55.245 2.655 12.573 2.613 34.389 2.483  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101<br>35.979<br>30.091   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>46.318  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>33.722  | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.327<br>-0.308<br>-0.280<br>0.000<br>0.000<br>-0.279  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000   | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.3768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000   | tsf 0.602 0.000  | ssf 0.002 0.000 0.  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>0.000  | MPa<br>1.473 1.<br>3.125 3<br>5.105 5<br>5.372 5<br>5.649 5<br>5.078 5<br>5.378 5<br>5.399 5<br>4.493 4<br>3.258 3<br>2.142 2<br>1.963 1<br>2.275 2<br>2.922 2   | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>19.633<br>22.750<br>29.219   |
| N160lc   | Chemistry   Chem | str         str         s.           0.043         0.218         0.410         2.411         5           19.168         0.331         1.010         1.621         6           13.145         0.346         0.730         1.014         7           3.2883         0.347         0.520         1.682         7           3.2848         0.357         0.680         1.682         7           3.2840         0.353         1.670         1.052         7           3.3484         0.353         1.670         1.058         7           2.2840         0.353         1.670         1.058         7           2.2955         0.302         0.880         1.088         7           2.2055         0.230         0.880         1.525         6           13.155         0.216         0.880         1.687         5         5           13.55         0.216         0.880         1.697         5         5         5           12.55         0.280         0.820         1.975         5         5         7         7         7         7         7         7         7         7         7         7   | 8 5 0 7 0 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6                               | 8 0 0 0 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5                  | pcf<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | tsf tsf tsf 1,009 0.000  | tsf<br>199 0.000<br>189 0.000<br>188 0.000<br>188 0.000<br>188 0.000<br>187 0.000<br>18 | ft 0.000 0.0  | 1.700 4.3;<br>1.700 4.3;<br>1.700 10.5<br>1.700 10.0<br>1.700 11.0<br>1.700 11.0<br>1.700 11.0<br>1.700 11.0<br>1.700 10.4<br>1.700 6.3;<br>1.700 6.6;<br>1.700 6.6;<br>1.700 6.6;  | bpf<br>17.363<br>12.499<br>19.91<br>17.016<br>33.17.906<br>16.18.829<br>19.20.313<br>35.71<br>17.828<br>35.17.925<br>14.975<br>66.13.032<br>11.0712<br>44.9.816<br>11.13.75<br>55.11.888<br>99.13.786  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377<br>3.213<br>3.644<br>4.401   | bpf<br>4.440<br>7.824<br>11.860<br>11.808<br>12.335<br>11.662<br>11.825<br>11.881<br>10.181<br>7.861<br>5.740<br>5.462<br>6.195<br>7.482<br>7.271  | 961.530 2. 1020.138 1. 1106.026 1. 867.672 1. 727.274 1. 491.542 1. 491.542 1. 208.456 1. 124.400 1. 104.469 1. 111.929 2. 133.804 1. 117.816 2.   | ks tsf 413 9.033 19.168 105 31.316 105 31.316 105 32.945 1060 34.637 1465 31.125 108 32.774 1098 27.499 1241 19.910 13.050 1993 11.941 1073 13.845 1786 17.808   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485  | 0.865 99 1.835 10 3.001 11 3.158 88 3.321 77 2.981 55 3.141 45 3.172 44 2.640 33 1.914 22 1.258 12 1.152 10 1.334 11 1.713 11 1.617 11  | 119.460 2.438 106.221 2.168 106.221 2.168 106.221 2.168 106.221 2.138 127.828 2.122 144.561 2.242 191.760 2.152 133.721 2.122 105.169 2.357 125.150 2.586 105.245 2.685 12.573 2.613 18.485 2.488  | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 34.399 38.101 35.979 32.869   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>46.318<br>0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.557<br>34.243<br>0.000<br>0.000<br>0.000  | -0.476 -0.427 -0.398 -0.382 -0.396 -0.350 -0.327 -0.308 -0.280 0.000 0.000 -0.279 0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000   | tsf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.3768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000   | tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.1120 0.000 0 | ssf 0.002 0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000  | MPa 1.473 1. 3.125 3 3.125 3 5.105 5 5.372 5 5.649 5 5.078 5 5.348 5 5.399 5 4.493 4 3.258 3 3.258 3 1.2275 2 2.922 2 2.757 2  | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750   |
| N1801c1     N1801c1     N1801c1     N1801c2     N1801c2     N1801c2     N1801c3     N180   | Newhook  | str         str         5.           0.043         0.218         8.           9.048         0.341         2.411         5           19.186         0.331         1.010         1.621         6           31.345         0.346         0.730         1.014         7           32.838         0.347         0.620         1.662         7           33.8484         0.357         0.680         1.682         7           33.8480         0.350         1.008         7         7           33.448         0.351         1.309         1.058         7           27.958         0.302         0.880         1.008         7           27.958         0.302         0.880         1.008         7           33.148         0.337         0.880         1.236         6           31.359         0.302         0.880         1.008         7           20.005         0.247         0.880         1.236         6           13.569         0.227         1.419         2.085         5           13.569         0.227         1.419         2.095         6           13.690         0.227         1.   | 8 5<br>0 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 6 7<br>6 6 7<br>6 6 6 5<br>5 6 6<br>5 6  | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6                               | 8 0 0 0 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5                  | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>114.551<br>117.733<br>114.551<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | tsf tsf tsf 1,009 0.000  | Isf   O.000   | ft 0.000 0.0  | 1.700 4.3<br>1.700 4.3<br>1.700 10.0<br>1.700 10.0<br>1.700 11.0<br>1.700 11.0<br>1.700 11.0<br>1.700 10.4<br>1.700 10.4<br>1.700 6.3<br>1.700 6.3<br>1.700 6.8<br>1.700 6.8<br>1.700 6.8   | bpf 1 7.363 21 12.4999 39 17.016 33 17.906 33 17.906 36 18.8299 20.313 37 7.7 8.28 55 17.999 41.975 66 13.032 16 11.375 55 11.688 9 13.786 55 10.565 55 10.565 55 10.565 55  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.373<br>3.213<br>3.644<br>4.401<br>4.277<br>3.515   | bpf 4.440 7.824 11.360 11.808 12.335 11.662 11.825 11.808 10.181 7.861 5.746 6.195 7.482 7.271   | 961.530 2. 1020.138 1. 1106.026 1. 867.672 1. 727.274 1. 544.615 1. 491.52 3. 319.810 1. 1024.400 1. 104.469 1. 1119.29 2. 133.804 1. 117.816 2. 84.429 2.   | 113 9.033 19.168 1055 31.316 1055 31.316 1056 32.945 1060 34.637 1065 31.125 1070 1070 1070 1070 1070 1070 1070 107  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003   | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485   | 0.865 99 1.835 10 3.001 11 3.158 3.321 77 2.981 55 3.141 45 3.172 45 3.172 45 1.914 22 1.258 12 1.152 10 1.334 11 1.713 13 1.617 17   | 119.460 2.438 06.221 2.168 68.245 2.138 68.245 2.132 44.561 2.243 44.561 2.243 91.760 2.152 93.37.21 2.128 20.501 2.212 99.169 2.357 25.150 2.580 95.245 2.681 34.389 2.483 34.389 2.483   | %<br>46.273<br>28.014<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101<br>35.979<br>30.091<br>32.869<br>39.734   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>46.318<br>0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>33.722<br>0.000   | -0.476<br>-0.427<br>-0.398<br>-0.382<br>-0.396<br>-0.350<br>-0.350<br>-0.327<br>-0.308<br>-0.280<br>-0.000<br>-0.000<br>-0.000<br>-0.000  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.914<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000   | 1sf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000  | tsf 0.602 0.000 0. | Isf 0.002 0.000 0.  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000  | MPa<br>1.473 1.<br>3.125 5.<br>5.105 5.<br>5.372 5.<br>5.649 5.<br>5.378 5.<br>5.388 5.<br>5.399 5.<br>4.493 4.<br>4.3258 3.<br>2.142 2.<br>1.963 2.<br>2.275 2.<br>2.922 2.<br>2.757 2.<br>2.113 2.   | 4.727<br>1.247<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.7571<br>1.131   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131   |
| ST   N100ic  | Section   Sect | wil si 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   | 8 5 7 0 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6                               | 8 0 0 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 4 4 4                | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | 184 185 185 185 185 185 185 185 185 185 185  | ssf   | 1000 (0.0  | 1.700 4.3. 1.700 4.3. 1.700 4.3. 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.5 1.700 10.6 1.700 6.8 1.700 6.8 1.700 6.8 1.700 6.8 1.700 6.8 1.700 8.1 1.700 8.1 1.700 8.1 1.700 8.1 1.700 8.3   | bpf 1 7.363 2 12.495 9 17.016 1 7.363 2 12.495 9 17.016 1 8.225 9 17.016 1 8.225 9 1 1.7.95 9 14.975 6 13.032 1 1.7.95 9 14.975 6 13.032 1 1 11.375 6 1 11.688 9 13.786 5 10.565 5 10.565 5 10.565 5 10.565 5 11.739 3 5 11.785  | bpf 2-612 4-602 4-602 4-602 4-602 4-608 4-608 6-860 6-966 6-966 6-966 6-968 4-624 3.371 3.644 4-401 3.5115 3.135  | bpf 4.440 7.824 11.360 11.808 12.335 11.602 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.333   | 961.530 2<br>1020.138 1.<br>1106.026 1.<br>867.672 1.<br>727.274 1.<br>544.615 1.<br>431.542 1.<br>433.273 1.<br>319.810 1.<br>124.400 1.<br>104.469 1.<br>111.929 2.<br>133.804 1.<br>117.816 2.<br>84.429 2.<br>86.090 2.<br>62.350 3.   | 113 9.033 11413 9.033 1523 19.168 1055 31.316 1055 31.316 1056 31.125 1060 34.637 1058 32.7499 1098 27.499 1098 27.499 1098 11.941 1073 13.845 17.808   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.53<br>33.389<br>117.485<br>84.270<br>68.015<br>62.297  | 0.865 99<br>1.835 10<br>3.001 11<br>3.301 72<br>2.981 5<br>3.321 72<br>2.981 5<br>3.141 45<br>3.172 44<br>2.640 3<br>1.914 22<br>1.152 10<br>1.152 11<br>1.152 11<br>1.151 11<br>1.713 13<br>1.714 8<br>1.066 6   | 119.460 2.435<br>06.221 2.168<br>58.245 2.132<br>58.245 2.132<br>44.561 2.243<br>91.760 2.152<br>33.721 2.122<br>20.501 2.212<br>20.501 2.212<br>2 | % 46.273 28.014 17.942 16.981 16.981 17.434 16.996 19.397 24.694 34.399 38.101 35.979 30.091 32.869 39.734 43.889 46.373  | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>0.000<br>0.000<br>0.000<br>46.318<br>0.000<br>0.000<br>0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | -0.476 -0.427 -0.398 -0.382 -0.396 -0.350 -0.327 -0.308 -0.280 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 1sf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | tsf 0.602 0.000 0. | sef (0.002  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000  | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.474 1.           | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.131<br>8.147<br>7.608   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608   |
| N180le   N180le  | Eleva   Elev | st/l         st/l         st/l           0.043         0.219         0.419         2.411         5           10.188         0.311         0.1010         1.621         6         1.311         1.010         1.621         6         3.31.345         0.346         0.730         1.0104         7         3.2883         0.347         0.520         1.062         7         3.2883         0.347         0.520         1.062         7         3.3484         0.350         1.080         1.080         1.080         7         3.3120         0.353         1.679         1.080         7         2.2365         0.320         1.080         1.095         7         2.2355         0.320         0.880         1.095         7         2.2005         0.247         0.880         1.095         7         2.2005         0.247         0.880         1.095         7         2.2005         0.247         0.880         1.095         7         2.2005         0.247         0.880         1.095         7         2.2055         0.330         0.820         1.974         5         1.3550         0.2794         5         1.3560         0.2794         5         1.3560         0.2794         5         1.2055         0.238   | 8 5<br>8 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6                                    | 8 0 0 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 4 4 4 4            | pcf<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bif  | Isf   199   0.00008   199   0.00008   199   0.00008   199   0.00008   199   0.00008   199   0.00008   199   0.00008   199   199   0.00008   199   19  | 10000   | 1.700 4.3. 1.700 4.3. 1.700 10.0 1.700 10.0 1.700 11.0 1.700 11.0 1.700 11.0 1.700 11.0 1.700 11.0 1.700 10.5 1.700 10.4 1.700 6.3 1.700 6.3 1.700 6.8 1.700 6.8 1.700 6.8 1.700 6.9 1.700 6.9 1.700 6.9  | bpf 1 7.363 2 12.499 9 17.016 33 17.906 33 17.906 33 17.906 33 17.906 36 13.032 4 19.2031 37 17.828 55 17.955 6 13.032 1 10.712 1 11.378 5 11.688 5 13.786 5 10.565 7 9.073 7 9.073 9 12.689   | bpf 2.612 4.602 6.682 6.946 7.256 6.880 6.956 6.946 5.989 4.624 3.377 3.213 3.644 4.401 4.277 3.515 3.135 3.125 3.407   | bpf 4.440 7.824 11.360 11.808 12.335 11.662 11.825 11.808 10.181 7.861 5.740 6.495 7.482 7.271 5.976 5.330 5.313 5.792   | 961.530 2 1020.138 1. 1106.026 1. 1867.672 1. 727.274 1. 544.615 1. 1491.542 1. 139.810 1. 124.400 1. 104.469 1. 111.929 2. 133.804 1. 117.816 2. 84.429 2. 66.350 3. 63.952 3. 63.952 3.  | tsf  | 0.001<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003   | 0.001<br>0.002<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297  | 0.865 99<br>1.835 10<br>3.001 11<br>3.158 8<br>3.321 7.<br>2.981 5-<br>3.141 45<br>3.172 45<br>3.172 45<br>1.1914 22<br>1.258 12<br>1.152 11<br>1.713 13<br>1.713 13<br>1.713 15<br>1.713 15<br>1.713 15<br>1.713 15<br>1.713 15<br>1.713 15<br>1.714 15<br>1.715 16<br>1.715 | 119.460 2.435 06.221 2.165 88.245 2.162 88.245 2.162 88.245 2.122 44.561 2.242 91.760 2.125 33.721 2.126 20.501 2.212 93.169 2.352 5.150 2.586 95.245 2.655 12.257 2.658 18.485 2.548 18.257 2.658 18.270 2.680 19.9015 2.758  | %<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101<br>35.979<br>30.091<br>32.686<br>39.734<br>43.589<br>46.373<br>47.171   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>46.318<br>0.000<br>0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | -0.476 -0.427 -0.398 -0.382 -0.396 -0.350 -0.327 -0.308 -0.280 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.935<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 1sf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | tsf 0.602 0.000 0. | sf 0.002 0.000 0.0  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000   | MPa 1.473 1. 1.473 1. 1.473 1. 3.125 3. 5.105 5. 5.372 5. 5.649 5. 5.078 5. 5.399 5. 3.48 5. 5.399 5. 4.493 4. 2.142 2. 2.952 2. 2.952 2. 2.957 2. 2.922 2. 2.113 2. 2.113 2. 1.815 1. 1.761 1.  | 4.727<br>1.1.247<br>1.1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.131<br>8.147<br>7.608   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047   |
| No.    | Section   Sect | wi si si 5, 2411 5, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,   | 8 5 7 0 0 7 7 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 6 7 7 6 6 6 7 7 6 6 6 7 7 6 7 6 7 7 6 7 7 6 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 5 5 5 5 5 5 5 4 4 4 4 4 4 4                  | pcf 114.551 11   | March   Marc   | ssf   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 1.700 43.3<br>1.700 43.3<br>1.700 10.5<br>1.700 10.5<br>1.700 11.9<br>1.700 11.9<br>1.700 11.9<br>1.700 10.5<br>1.700 10.5<br>1.700 10.5<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3<br>1.700 6.3  | bpf 1  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>4.624<br>3.377<br>3.213<br>3.644<br>4.401<br>4.277<br>3.515<br>3.135<br>3.135<br>3.125  | bpf 4.440 7.824 11.360 11.808 12.335 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.313 5.792 6.870   | 961.530 2 1020.138 1. 1106.026 1. 1106.026 1. 1106.026 1. 1106.026 1. 1206.026 | %         bf           %         bf           %         bf           \$13         9.033           \$223         19.168           \$153         19.946           \$153         32.945           \$153         32.945           \$155         31.25           \$165         31.125           \$106         32.774           \$108         32.774           \$100         33.072           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774           \$100         32.774 <td>0.001<br/>0.002<br/>0.001<br/>0.000<br/>0.001<br/>0.002<br/>0.002<br/>0.001<br/>0.001<br/>0.001<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.000<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.</td> <td>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.001<br/>0.001<br/>0.002<br/>0.002<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.003</td> <td>960.167<br/>1018.459<br/>1105.221<br/>867.245<br/>726.828<br/>543.560<br/>490.760<br/>432.720<br/>319.501<br/>104.245<br/>111.573<br/>133.389<br/>117.485<br/>84.201<br/>62.297<br/>63.524<br/>75.574</td> <td>0.665 98<br/>1.835 10<br/>3.001 11<br/>3.158 86<br/>3.321 7.<br/>2.981 5.<br/>3.141 45<br/>3.172 44<br/>2.640 3.<br/>1.914 22<br/>1.258 12.<br/>1.258 12.<br/>1.258 12.<br/>1.258 12.<br/>1.258 12.<br/>1.258 12.<br/>1.334 11.<br/>1.252 14.<br/>1.252 14.<br/>1.252 14.<br/>1.353 15.<br/>1.353 15.<br/>1.354 15.<br/>1.355 15.</td> <td>119,460 2,436 06,221 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 69,245 2,168 68,245 2,588 68,2</td> <td>% 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.654 34.359 38.101 35.979 30.091 32.869 39.734 43.589 46.373 47.171 41.999</td> <td>%<br/>0.000<br/>76.299<br/>84.491<br/>81.746<br/>79.941<br/>74.277<br/>73.553<br/>71.882<br/>64.194<br/>0.000<br/>0.000<br/>46.318<br/>0.000<br/>0.000<br/>0.000</td> <td>deg<br/>0.000<br/>34.043<br/>36.388<br/>36.631<br/>36.871<br/>36.363<br/>36.655<br/>36.655<br/>36.655<br/>36.363<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000</td> <td>-0.476 -0.427 -0.396 -0.350 -0.350 -0.350 -0.350 -0.328 -0.398 -0.280 0.000 0.000 -0.000 0.000 0.000 0.000 0.000 0.000</td> <td>0.000<br/>3.680<br/>2.910<br/>2.835<br/>2.763<br/>2.918<br/>2.841<br/>2.828<br/>3.106<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000</td> <td>1sf<br/>0.000<br/>70.641<br/>91.254<br/>93.541<br/>95.858<br/>91.024<br/>93.344<br/>93.768<br/>85.712<br/>72.346<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.</td> <td>tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.870 0.796 0.923 0.000 1.120 0.710 0.732 0.710 0.768</td> <td>lsf (0.002</td> <td>10.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000</td> <td>MPa 1.473 1. 1.473 1. 1.473 1. 3.125 3. 5.105 5. 5.372 5. 5.649 5. 5.078 5. 5.078 5. 5.078 5. 4.493 4. 3.258 3. 2.275 2. 2.142 2. 2.142 2. 2.757 2. 2.13 2. 2.13 2. 2.156 1. 1.761 1. 1.761 1. 1.905 1.</td> <td>4.727<br/>1.1.247<br/>1.1.048<br/>3.717<br/>6.487<br/>0.783<br/>3.484<br/>3.986<br/>4.925<br/>2.581<br/>1.425<br/>9.633<br/>2.750<br/>9.219<br/>7.757<br/>1.131<br/>8.147<br/>7.608<br/>9.047<br/>3.754</td> <td>14.727<br/>31.247<br/>51.048<br/>53.717<br/>56.487<br/>50.783<br/>53.484<br/>53.986<br/>44.925<br/>32.581<br/>21.425<br/>19.633<br/>22.750<br/>29.219<br/>27.571<br/>21.131<br/>18.147<br/>17.608<br/>19.047<br/>23.754</td>  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.002<br>0.003<br>0.003<br>0.003<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>104.245<br>111.573<br>133.389<br>117.485<br>84.201<br>62.297<br>63.524<br>75.574  | 0.665 98<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 7.<br>2.981 5.<br>3.141 45<br>3.172 44<br>2.640 3.<br>1.914 22<br>1.258 12.<br>1.258 12.<br>1.258 12.<br>1.258 12.<br>1.258 12.<br>1.258 12.<br>1.334 11.<br>1.252 14.<br>1.252 14.<br>1.252 14.<br>1.353 15.<br>1.353 15.<br>1.354 15.<br>1.355 15.                                     | 119,460 2,436 06,221 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 68,245 2,168 69,245 2,168 68,245 2,588 68,2   | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.654 34.359 38.101 35.979 30.091 32.869 39.734 43.589 46.373 47.171 41.999   | %<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.194<br>0.000<br>0.000<br>46.318<br>0.000<br>0.000<br>0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.655<br>36.655<br>36.655<br>36.363<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | -0.476 -0.427 -0.396 -0.350 -0.350 -0.350 -0.350 -0.328 -0.398 -0.280 0.000 0.000 -0.000 0.000 0.000 0.000 0.000 0.000  | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.828<br>3.106<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 1sf<br>0.000<br>70.641<br>91.254<br>93.541<br>95.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0. | tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.870 0.796 0.923 0.000 1.120 0.710 0.732 0.710 0.768  | lsf (0.002  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000   | MPa 1.473 1. 1.473 1. 1.473 1. 3.125 3. 5.105 5. 5.372 5. 5.649 5. 5.078 5. 5.078 5. 5.078 5. 4.493 4. 3.258 3. 2.275 2. 2.142 2. 2.142 2. 2.757 2. 2.13 2. 2.13 2. 2.156 1. 1.761 1. 1.761 1. 1.905 1.  | 4.727<br>1.1.247<br>1.1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.757<br>1.131<br>8.147<br>7.608<br>9.047<br>3.754   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047<br>23.754   |
| 150   N   N   N   N   N   N   N   N   N  | Selection   Sele | str         str         str           3 0,043         0,248         8.48         8.48           19,168         0,341         0,410         1,621         6           19,168         0,331         1,010         1,621         6           31,345         0,346         0,730         1,041         7           32,838         0,347         0,520         1,682         7           33,468         0,357         0,880         1,682         7           33,468         0,353         1,679         1,105         7           33,468         0,353         1,579         1,058         7           27,958         0,302         0,880         1,006         7           27,958         0,302         0,880         1,006         7           20,005         0,247         0,880         1,205         6           13,155         0,210         0,880         1,606         7           13,156         0,331         1,779         1,772         6           16,629         0,351         1,779         1,772         6           16,629         0,351         1,779         1,772         6  | 8 5<br>8 7<br>0 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6 7<br>6   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 5 5 5 5 5 5 5 4 4 4 4 4 4 4                  | pef<br>114_551<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>117,733<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551  | buf  | Isf   0.000   | R   | 1,700 4.3<br>1,700 10.0<br>1,700 11.0<br>1,700 11.0<br>1,700 11.0<br>1,700 11.0<br>1,700 11.0<br>1,700 11.0<br>1,700 10.5<br>1,700 8.8<br>1,700 6.3<br>1,700 6.6<br>1,700 6.6<br>1,700 6.8<br>1,700 6. | bpf  bpf  1 7.363 1 7.363 2 12.499 17.016 33 17.906 33 17.906 61 8.829 99 20.313 99 20.313 99 14.975 90 14.975 91 14.975 91 14.975 91 11.375 91 11.375 91 11.375 91 11.375 91 11.375 91 11.375 91 11.583 91 11 | bpf 2.612 4.602 6.682 6.946 7.256 6.880 6.966 6.966 6.946 5.989 4.624 4.401 4.277 3.515 3.125 3.125 3.407 4.041 5.222 7.162   | bpf 4.440 7.824 11.360 11.808 12.335 11.662 11.825 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.313 5.792 6.870 8.878  | 961530 2. 1020.138 1. 1106.026 1. 867.672 1. 727.274 1. 491542 1. 491542 1. 491542 1. 491542 1. 102469 1. 1107.400 1. 117.816 2. 133.804 1. 117.816 2. 84.429 2. 84.429 2. 84.429 2. 84.629 2. 85.609 2. 85.75966 3. 107.189 2. 107.5966 3.  | % bf   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>492.720<br>319.501<br>204.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>75.574<br>106.847<br>1160.648  | 0.665 91<br>1.835 10<br>3.001 11<br>3.158 86<br>3.321 7.<br>2.981 5.<br>3.141 45<br>2.640 3.<br>3.172 44<br>2.640 3.<br>1.914 2.<br>1.152 11<br>1.152 11<br>1.152 11<br>1.151 | 119.460 2.438 4.454 2.45   | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 34.399 38.101 32.889 39.734 43.589 46.373 47.171 41.999 29.106 17.881   | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.852 64.909 54.194 0.000 0.000 0.000 46.318 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.363<br>36.610<br>36.871<br>36.353<br>36.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.   | -0.476 -0.427 -0.398 -0.396 -0.352 -0.396 -0.327 -0.308 -0.280 -0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 1sf<br>0.000<br>70.641<br>91.254<br>93.541<br>96.858<br>91.024<br>93.344<br>93.768<br>85.712<br>72.346<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0. | tsf 0.602 0.000  | lsf 0.002 0.000 0.  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000  | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 3.125 3. 5.105 5. 5.372 5. 5.549 5. 5.078 5. 5.078 5. 5.348 5. 5.399 5. 4.493 4. 2.142 2. 2.195 1. 2.275 2. 2.922 2. 2.757 2. 2.113 2. 2.113 2. 2.113 2. 2.113 1. 1.905 1.           | 4.727<br>1.247<br>1.1247<br>1.1048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.811<br>8.147<br>7.608<br>9.047<br>3.754<br>5.037   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047   |
| 15   | Exemple   Eleva  | ## ## # 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,   | 8   | 7 0 0 7 7 7 7 7 7 7 7 7 6 6 6 6 6 6 6 6   | 8 0 0 0 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5                  | pef<br>114_551<br>117_738<br>117_738<br>117_738<br>117_738<br>117_738<br>117_738<br>117_738<br>117_738<br>117_738<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551  | bif  | 19 tsf 19 0.000019 19 0.000019 19 0.000019 28 0.000018 28 0.000018 28 0.000018 28 0.000018 28 0.000018 28 0.000018 28 0.000018 28 0.000018 28 0.000018 29 0.000018 20 0.000018  | R 0.000   | 1,700   4.3   1,700   | bpt  | bpf 2.612 4.602 6.682 6.946 7.256 6.880 6.956 6.946 5.989 4.624 4.401 4.277 3.515 3.125 3.407 4.041 5.222 7.162 9.187   | bpf 4.440 7.824 11.360 11.808 12.335 11.662 11.825 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.313 5.792 6.870 8.878 12.175   | 861.530 2 2 1020.138 1.1106.026 1.1867.672 1.1106.026 1.1867.672 1.1106.026 1.1867.672 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.1106.026 1.111.026 1.1106.026 1. | %         bf           %         bf           %         bf           113         9033           329.34         19.168           105         31.316           353         32.945           350         32.956           34.637         365           31.25         365           31.27         30.02           308         27.749           33.072         33.30.72           398         27.499           341         19.910           393         11.941           376         13.693           377         13.845           377         10.981           301         10.10           101         10.641           333         14.396           343         34.366           353         34.966           378         21.315           382         33.496           383         46.298           384         36.298           385         36.298           386         378           387         38.298           388         34.298  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001   | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>75.574<br>106.847<br>160.645<br>215.368   | 0.865 99 1.835 10 3.001 11 3.158 88 3.301 72 2.981 57 2.981 57 2.981 42 2.540 33 1.172 42 1.258 11 1.152 11 1.152 11 1.154 8 1.066 6 1.113 6 1  | 193.460 2.438.4454 2.158.645 2.458.6   | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 34.399 38.101 35.979 30.091 32.889 39.734 43.89 39.734 41.899 29.106 17.681 11.319  | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.909 54.194 0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.363<br>36.510<br>36.365<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>34.590<br>36.3734<br>38.341  | -0.476 -0.427 -0.396 -0.398 -0.396 -0.350 -0.327 -0.308 -0.280 -0.000 -0.277 -0.236   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.841<br>2.821<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 1sf 0.000 70.541 91.254 93.541 99.254 93.768 85.712 72.346 0.000 0.000 0.000 0.000 0.000 0.000 0.000 75.328 94.529 112.347   | tsf  | saf 0.002 (0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000   | MPa 1.473 1. 1.473 1. 1.473 1. 3.125 3. 5.105 5. 5.372 5. 5.649 5. 5.078 5. 5.389 5. 5.389 5. 4.493 4. 4.275 2. 2.113 2. 2.1275 2. 2.113 2. 2.113 2. 2.113 2. 2.113 2. 2.113 2. 2.113 2. 2.113 2. 2.115 1. 1.761 1. 1.963 1. 1.963 5. 3.364 3. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5. 5.489 5.   | 4.727<br>1.247<br>1.048<br>3.717<br>6.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.608<br>9.047<br>3.754<br>5.037<br>4.891<br>6.839  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047<br>23.754<br>35.037<br>54.839   |
| 51   N+8001 b  52   Depth   Depth  53   Depth   Depth  54   Online   Online    56   Online   Online    57   Online   Online    58   Online   Online    59   Online   Online    50    | Electron   | Section   Sect   | 8 5 6 7 6 7 6 6 7 7 6 6 7 7 6 6 6 7 6 6 7 6 6 7 7 6 6 6 7 7 6 6 7 7 6 6 6 7 7 6 6 6 7 7 6 7 6 7 6 7 7 6 7 7 6 7 7 7 6 7   | 7 7 7 7 7 7 7 7 6 6 6 6 6 6 6 6 6 6 6 6   | 8 0 0 0 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5                  | pef<br>114_551<br>117,738<br>117,738<br>117,738<br>117,738<br>117,738<br>117,738<br>117,738<br>117,738<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551<br>114_551  | bdf  | tsf   color   tsf   color   tsf   color   tsf   color   tsf   color   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700 4.35<br>1,700 4.35<br>1,700 10.55<br>1,700 10.55<br>1,700 10.55<br>1,700 10.55<br>1,700 10.55<br>1,700 10.65<br>1,700 10.65<br>1,700 10.45<br>1,700 10.45<br>1,700 6.36<br>1,700 6.3  | bpf bpf 17.363 2 12.49999 17.01618 2 12.49999 17.01618 2 12.49999 17.01618 2 12.49999 17.01618 2 12.313 17.99696 13.0321 15.17.9959 14.97576 15.1818 2 11.3756 15.11.688 2 11. | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.806<br>6.956<br>6.946<br>5.969<br>4.624<br>3.373<br>3.644<br>4.401<br>4.277<br>3.515<br>3.135<br>3.135<br>3.125<br>3.135<br>3.125<br>3.135<br>3.125<br>3.135<br>3.125<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3.135<br>3. | bpf 4.440 7.824 11.380 11.808 12.335 11.662 11.825 11.662 11.825 11.662 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.976 6.370 8.878 12.175 15.619   | 961.530 2. 1020.138 1. 1106.026 1. 8867.672 1. 1721.274 1. 1491.542 1. 1491.542 1. 1491.542 1. 1491.542 1. 1491.542 1. 1491.542 1. 1491.542 1. 1319.810 1. 1319.81 | Section  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001  | 960.167<br>1018.459<br>1105.221<br>867.6828<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.482<br>68.015<br>62.297<br>63.524<br>75.574<br>106.645<br>215.368<br>237.194  | 1.835 90 1.835 10 1.8  | 119 460 2.43846 2.1386  | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 34.399 38.101 35.979 39.384 43.589 46.373 47.171 41.999 21.906  | % 0.000 76.299 84.491 81.746 79.941 74.277 73.1882 64.909 54.194 0.000 0.000 0.000 46.318 0.000   | deg<br>0.000<br>34.043<br>36.388<br>36.631<br>36.871<br>36.363<br>36.610<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.   | -0.476 -0.427 -0.398 -0.398 -0.396 -0.350 -0.350 -0.327 -0.300 -0.000  | 0.000<br>3.680<br>2.910<br>2.835<br>2.9763<br>2.918<br>2.841<br>2.828<br>3.106<br>3.615<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | 1sf 0.000 70.541 91.254 93.541 95.858 91.024 93.768 85.712 72.346 0.000  | tsf 0.602 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.870 0.796 0.923 0.000 1.120 0.855 0.732 0.732 0.768 0.960 0.000 0.000 0.000  | sef 0.002 0.000   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000  | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.474 1.           | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.131<br>8.147<br>7.608<br>9.047<br>3.754<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147<br>8.147  | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047<br>23.754<br>35.037<br>54.891<br>75.489<br>88.386   |
| No.    | Section   Sect | Section   Sect   | 5 0 7 0 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 7 6 7 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 6 6 6 6                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>11 | Mar    | 157   158   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.51   1,700   1,70  | bpf  | bpf 2.612 4.602 6.682 6.682 6.6846 7.256 6.860 6.966 6.966 6.946 5.989 4.624 3.377 3.511 3.644 4.401 4.277 3.515 3.125 3.407 4.041 5.222 7.162 9.187 10.212   | bpf 4.440 7.824 11.360 11.808 12.335 11.662 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.313 5.792 6.870 8.878 12.175 15.619 17.360   | 961-530 2 2 1020-138 1.1 1106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 106-026 1. 1 111-926 2  | K         st           K         st           K         st           M3         9.033           313         9.033           323         19.168           333         32.245           353         32.245           3665         33.125           3665         33.125           3010         32.774           3010         33.072           378         32.7439           341         19.910           379         31.941           379         31.941           379         31.941           379         31.941           379         31.941           371         31.352           371         31.352           372         31.952           373         31.952           374         31.343           375         31.345           383         31.436           384         31.345           387         31.436           387         31.436           387         31.436           387         31.436           387         31.436  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001   | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.721<br>104.245<br>111.573<br>131.7485<br>84.270<br>63.297<br>63.524<br>75.574<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847    | 0.865 91<br>1.835 10<br>3.158 81<br>3.158 81<br>3.151 82<br>3.141 45<br>3.172 45<br>2.640 33<br>3.172 45<br>2.640 33<br>1.173 11<br>1.173 11<br>1.241 81<br>1.035 66<br>1.113 67<br>1.139 72<br>2.054 11<br>1.390 72<br>2.054 11<br>2.054 | 193.460 2.435.474 2.164.651 2.454.65   | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 34.399 38.101 35.979 30.091 32.889 46.373 47.171 41.999 29.106 17.681 11.331 9.102  | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.909 54.194 0.000 0.000 0.000 0.000 0.000 0.000 45.768 57.966 66.958 70.342 71.328   | deg<br>0.000<br>34.043<br>36.381<br>36.871<br>36.363<br>36.615<br>36.655<br>35.772<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>33.722<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>34.590<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591<br>36.591   | -0.476 -0.427 -0.398 -0.398 -0.359 -0.350 -0.327 -0.308 -0.280 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.277 -0.236 -0.229 -0.228  | 0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.828 3.106 0.000  | tsf 0.000 70.541 91.254 93.541 93.545 93.544 93.768 85.712 72.346 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 75.328 94.529 112.347 122.079 122.079  | tsf 0.602 0.000  | 8sf 0.002 0.000 0.  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.173 1. 1.105 5 5.078 5 5.078 5 5.078 5 5.348 5 5.399 5 4.493 4. 4.93 4. 4.93 4. 1.2142 2. 1.1963 1 1.2275 2. 1.1963 1 1.2275 2. 1.1815 1. 1.1761 1 1.1905 1 1.905 1 1.905 1 1.905 1 1.905 1 1.908 1            | 4.727<br>1.247<br>1.1247<br>1.1048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.925<br>2.750<br>9.633<br>2.750<br>2.750<br>9.7571<br>1.131<br>8.147<br>7.608<br>9.047<br>3.754<br>5.037<br>4.891<br>6.839<br>8.386<br>8.386<br>8.386   | 14.727<br>31.247<br>51.048<br>53.717<br>56.487<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>21.131<br>18.147<br>17.608<br>19.047<br>33.754<br>35.037<br>54.891<br>76.839<br>88.386   |
| 151   N180le1  | Section   Sect | Section   Sect   | 8 5 0 7 7 0 7 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 7 7 6 7 7 7 6 7 7 7 6 7 7 7 6 7 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 5 5 5 5 5 5 5 5 6 6 6 6 6 6                  | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>11 | tef  | Section   Sect  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.51   1,700   1,70  | bgf 1 bgf 3  | bpf<br>2.612 4.602<br>6.682<br>6.946<br>7.256<br>6.966<br>6.966<br>6.969<br>6.969<br>4.624<br>3.377<br>3.213<br>3.644<br>4.401<br>4.277<br>3.515<br>3.135<br>3.125<br>3.407<br>4.011<br>5.222<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.162<br>7.    | bpf 4.440 7.824 11.360 11.808 12.335 11.652 11.808 10.181 7.861 5.740 5.462 6.195 7.482 6.195 7.482 6.870 8.878 12.175 15.619 17.861 17.861  | 961530 2 2 1020138 1 1020138 1 1020138 1 1020138 1 1020138 1 1020138 1 1 1020238 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | K         bf           5K         bf           13         9.033           13         9.033           223         19.168           105         31.315           353         32.945           353         32.945           3665         31.125           3665         31.125           3010         32.774           3010         33.072           378         32.7439           341         19.910           370         13.050           393         11.941           393         11.941           399         11.941           399         11.941           391         11.941           393         11.941           396         12.833           396         12.833           397         10.961           301         10.641           393         11.941           394         11.515           383         14.366           397         21.315           398         12.315           399         11.941           390         12.315 <t< td=""><td>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.002<br/>0.003<br/>0.003<br/>0.002<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.0000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.0000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.0000<br/>0.000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.0000<br/>0.00</td><td>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.001<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001</td><td>960.167<br/>1018.459<br/>1105.221<br/>867.245<br/>726.828<br/>543.560<br/>490.766<br/>432.720<br/>319.501<br/>208.169<br/>124.150<br/>104.245<br/>111.573<br/>133.389<br/>117.485<br/>84.270<br/>68.015<br/>62.297<br/>63.524<br/>75.574<br/>106.847<br/>106.847<br/>106.847<br/>106.847<br/>106.847<br/>106.847<br/>106.847<br/>121.368<br/>233.261<br/>233.261<br/>233.261</td><td>0.865 96 1.835 10 3.051 11 3.158 86 3.301 11 3.158 87 3.321 7 2.981 5 3.141 43 3.172 47 2.981 5 3.141 43 1.171 47 1.171 11 1.171 11 1.173 11 1.173 11 1.171</td><td>19.460 2.4384 2.</td><td>46, 273<br/>46, 273<br/>28, 014<br/>17, 942<br/>16, 981<br/>16, 476<br/>20, 485<br/>17, 434<br/>16, 596<br/>19, 397<br/>24, 654<br/>34, 399<br/>38, 101<br/>32, 689<br/>39, 734<br/>43, 589<br/>46, 373<br/>47, 171<br/>41, 999<br/>29, 106<br/>17, 681<br/>11, 13, 13, 13, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</td><td>% 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.94 0.000</td><td>deg<br/>0.000<br/>34.043<br/>36.383<br/>36.871<br/>36.363<br/>36.655<br/>36.655<br/>35.777<br/>34.243<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>34.590<br/>36.734<br/>38.341<br/>39.276<br/>39.329<br/>39.529</td><td>-0.476 -0.427 -0.4382 -0.398 -0.382 -0.396 -0.350 -0.327 -0.327 -0.308 -0.280 -0.000</td><td>0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.828 3.106 3.615 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.804 2.380 2.247 2.201 2.183</td><td>tsf 0.000 70.541 91.254 93.541 95.858 91.024 93.541 95.858 91.024 93.768 85.712 72.346 0.000 0.0</td><td>tsf</td><td>8sf</td><td>10.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>10.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000</td><td>MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.474 1.</td><td>4.727<br/>1.247<br/>1.048<br/>3.717<br/>6.487<br/>0.783<br/>3.484<br/>3.986<br/>4.925<br/>2.581<br/>1.425<br/>9.633<br/>2.750<br/>9.219<br/>7.571<br/>1.131<br/>8.147<br/>7.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608<br/>9.608</td><td>14.727<br/>51.048<br/>53.717<br/>50.783<br/>53.484<br/>50.783<br/>53.484<br/>44.925<br/>52.581<br/>21.425<br/>59.219<br/>22.750<br/>18.147<br/>21.750<br/>18.147<br/>23.754<br/>19.047<br/>23.754<br/>19.047<br/>23.754<br/>19.047<br/>23.754<br/>19.047<br/>24.955<br/>25.811<br/>18.147<br/>17.508<br/>19.047<br/>23.754<br/>19.047<br/>24.955<br/>25.951<br/>26.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27.951<br/>27</td></t<>  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00  | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001  | 960.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.766<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>75.574<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>121.368<br>233.261<br>233.261<br>233.261   | 0.865 96 1.835 10 3.051 11 3.158 86 3.301 11 3.158 87 3.321 7 2.981 5 3.141 43 3.172 47 2.981 5 3.141 43 1.171 47 1.171 11 1.171 11 1.173 11 1.173 11 1.171   | 19.460 2.4384 2.   | 46, 273<br>46, 273<br>28, 014<br>17, 942<br>16, 981<br>16, 476<br>20, 485<br>17, 434<br>16, 596<br>19, 397<br>24, 654<br>34, 399<br>38, 101<br>32, 689<br>39, 734<br>43, 589<br>46, 373<br>47, 171<br>41, 999<br>29, 106<br>17, 681<br>11, 13, 13, 13, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19   | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.94 0.000  | deg<br>0.000<br>34.043<br>36.383<br>36.871<br>36.363<br>36.655<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>34.590<br>36.734<br>38.341<br>39.276<br>39.329<br>39.529  | -0.476 -0.427 -0.4382 -0.398 -0.382 -0.396 -0.350 -0.327 -0.327 -0.308 -0.280 -0.000   | 0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.828 3.106 3.615 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.804 2.380 2.247 2.201 2.183  | tsf 0.000 70.541 91.254 93.541 95.858 91.024 93.541 95.858 91.024 93.768 85.712 72.346 0.000 0.0   | tsf  | 8sf   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.474 1.           | 4.727<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.131<br>8.147<br>7.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608<br>9.608  | 14.727<br>51.048<br>53.717<br>50.783<br>53.484<br>50.783<br>53.484<br>44.925<br>52.581<br>21.425<br>59.219<br>22.750<br>18.147<br>21.750<br>18.147<br>23.754<br>19.047<br>23.754<br>19.047<br>23.754<br>19.047<br>23.754<br>19.047<br>24.955<br>25.811<br>18.147<br>17.508<br>19.047<br>23.754<br>19.047<br>24.955<br>25.951<br>26.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27.951<br>27 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Eleva  | W  | 8 5 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 7 7 7 6 7 7 7 6 7 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 6 6 6 6                  | ped<br>114,551<br>114,551<br>117,728<br>117,728<br>117,728<br>117,728<br>117,728<br>117,728<br>117,728<br>117,728<br>117,728<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>11 | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 199   | 0000 0000 0000 0000 0000 0000 0000 0000 0000  | 1,700   43.3   1,700   15.5   1,700   13.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   1,7  | bpf  | bpf 2.612 4.602 6.682 6.946 7.256 6.896 6.966 6.966 6.966 6.966 6.968 4.624 3.377 3.213 3.644 4.401 4.277 3.135 3.135 3.125 7.162 7.  | bpf 4.440 7.824 11.360 11.808 12.335 11.602 11.825 11.808 10.181 7.881 5.740 5.462 6.195 7.482 7.271 5.330 5.313 5.792 6.870 8.878 12.175 12.619 17.380 18.181 18.503 19.552 19.552  | 981 530 2 2 1020 133 1 1 1106 026 1  | k lsf 13 9,033 323 19,168 83 323 19,168 83 323 19,168 83 323 19,168 83 329 15,168 93 329,158 93 329,158 93 329,158 93 329,158 93 329,158 93 31,158   | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001 | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001  | 980.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>492.720<br>319.501<br>208.169<br>124.169<br>104.245<br>111.573<br>104.245<br>111.573<br>68.015<br>62.297<br>68.015<br>62.297<br>106.847<br>160.648<br>237.194<br>240.345<br>233.261<br>240.765<br>240.765<br>257.194<br>240.345<br>233.261<br>233.267<br>233.267<br>233.267<br>233.267<br>233.267<br>233.267<br>233.267<br>233.267<br>233.267   |   | 19.460 2.4384 2.   | % 46.273 28.014 17.942 16.981 16.476 20.485 17.434 16.596 19.397 24.694 38.101 35.979 38.101 35.979 39.734 43.589 46.373 47.171 41.999 29.106 17.681 11.319 9.102 8.550 8.913 8.861   | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.909 54.194 0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.831<br>36.871<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.   | -0.476 -0.4276 -0.4276 -0.398 -0.398 -0.396 -0.350 -0.327 -0.308 -0.280 -0.000  | 0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.828 3.106 3.615 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.942 2.947 2.201 2.151  | tsf 0.000 1.   | tsf  | 86f 0.002 0.000 0.  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.125 1.           | 4.727<br>1.247<br>1.247<br>1.048<br>3.717<br>6.487<br>0.783<br>3.484<br>3.986<br>4.925<br>2.581<br>1.425<br>9.633<br>2.750<br>9.219<br>7.571<br>1.131<br>8.131<br>8.007<br>4.891<br>6.839<br>8.386<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391<br>8.391  | 14.727<br>51.048<br>53.717<br>50.048<br>53.717<br>50.783<br>53.484<br>53.986<br>44.925<br>32.581<br>98.633<br>22.750<br>19.633<br>22.750<br>19.633<br>35.966<br>44.925<br>32.581<br>19.633<br>32.581<br>19.633<br>32.754<br>35.037<br>76.839<br>88.386<br>94.93<br>38.401  |
| 51   | Section   Sect | Section   Sect   | 8   | 7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 8 5 5 5 5 5 5 5 6 4 4 4 4 5 5 6 6 6 6 6 6    | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>120.916<br>12 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | Section   Sect  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.51<br>  1,700   43.51<br>  1,700   10.51<br>  1,700   10.5   | bgr 1 bgr 2 bgr 2 bgr 3 bgr 3 bgr 4 bgr 3 bgr 4  | bpf<br>2.612<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.955<br>6.955<br>6.955<br>4.624<br>3.377<br>3.213<br>3.644<br>4.401<br>4.207<br>3.515<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3. | bef 4.440 7.824 11.360 11.808 12.335 11.808 12.335 11.808 12.335 11.805 10.181 7.861 5.740 5.462 6.870 6.870 6.870 8.878 12.175 15.619 17.360 18.191 18.503 19.252 19.609  | 961530 2 2 1020138 1 1020138 1 106026 1 | %         bf           %         bf           bf         bf           bf         9.033           3223         19.168           3223         19.168           3553         32.945           3553         32.945           365         34.597           465         31.125           31.125         31.125           306         32.774           308         22.794           309         27.499           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727           300         32.727 <trr< td=""><td>0.001<br/>0.002<br/>0.001<br/>0.000<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001</td><td>0.001<br/>0.002<br/>0.001<br/>0.000<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.002<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.003<br/>0.001<br/>0.001<br/>0.001<br/>0.001<br/>0.001</td><td>980.167<br/>1018.459<br/>1105.221<br/>867.245<br/>726.828<br/>543.560<br/>490.760<br/>432.720<br/>319.501<br/>208.169<br/>124.150<br/>104.245<br/>111.573<br/>133.389<br/>117.485<br/>84.270<br/>68.015<br/>62.297<br/>63.524<br/>75.574<br/>106.847<br/>1160.645<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368<br/>215.368</td><td></td><td>19.460 2.4384 2.</td><td>46.273<br/>46.273<br/>28.014<br/>17.942<br/>16.981<br/>16.476<br/>20.485<br/>17.434<br/>16.596<br/>19.397<br/>24.694<br/>34.399<br/>38.101<br/>35.579<br/>30.091<br/>32.889<br/>39.734<br/>43.589<br/>29.106<br/>11.319<br/>11.319<br/>10.28<br/>10.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319<br/>11.319</td><td>% 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.909 54.194 0.000</td><td>deg<br/>0.000<br/>34.043<br/>36.388<br/>36.871<br/>36.363<br/>36.655<br/>35.777<br/>34.243<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.00</td><td>-0.476 -0.427 -0.4382 -0.398 -0.350 -0.350 -0.350 -0.308 -0.280 -0.000</td><td>0.000<br/>3.680<br/>2.910<br/>2.835<br/>2.763<br/>2.918<br/>2.814<br/>2.828<br/>3.106<br/>3.515<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828<br/>2.828</td><td>0.000 0.000</td><td>tsf</td><td>0.002<br/>0.002<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000<br/>0.000</td><td>10.000 10.000</td><td>MPa 1.473 1 1.</td><td>4.4.727<br/>1.247<br/>1.247<br/>1.1048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.048<br/>1.0</td><td>14.727<br/>51.048<br/>53.717<br/>50.783<br/>53.484<br/>54.925<br/>53.986<br/>44.925<br/>32.581<br/>19.633<br/>22.750<br/>19.633<br/>22.751<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>17.608<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19.047<br/>19</td></trr<> | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001 | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001  | 980.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>75.574<br>106.847<br>1160.645<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368<br>215.368     |   | 19.460 2.4384 2.   | 46.273<br>46.273<br>28.014<br>17.942<br>16.981<br>16.476<br>20.485<br>17.434<br>16.596<br>19.397<br>24.694<br>34.399<br>38.101<br>35.579<br>30.091<br>32.889<br>39.734<br>43.589<br>29.106<br>11.319<br>11.319<br>10.28<br>10.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319<br>11.319 | % 0.000 76.299 84.491 81.746 79.941 74.277 73.553 71.882 64.909 54.194 0.000  | deg<br>0.000<br>34.043<br>36.388<br>36.871<br>36.363<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00   | -0.476 -0.427 -0.4382 -0.398 -0.350 -0.350 -0.350 -0.308 -0.280 -0.000   | 0.000<br>3.680<br>2.910<br>2.835<br>2.763<br>2.918<br>2.814<br>2.828<br>3.106<br>3.515<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828<br>2.828  | 0.000  | tsf  | 0.002<br>0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10.000  | MPa 1.473 1 1.           | 4.4.727<br>1.247<br>1.247<br>1.1048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.048<br>1.0 | 14.727<br>51.048<br>53.717<br>50.783<br>53.484<br>54.925<br>53.986<br>44.925<br>32.581<br>19.633<br>22.750<br>19.633<br>22.751<br>17.608<br>19.047<br>17.608<br>19.047<br>17.608<br>19.047<br>17.608<br>19.047<br>17.608<br>19.047<br>17.608<br>19.047<br>17.608<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19.047<br>19 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Eleva  | W   W   R   S   S   S   S   S   S   S   S   S  | 8   | 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7   | 8 0 0 0 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5                  | ped<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>117,733<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>112,514<br>11 | 1 M  | 1   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.3   1,700   13.8   1,700   13.8   1,700   13.8   1,700   13.8   1,700   10.8   1,700   10.8   1,700   10.8   1,700   10.8   1,700   10.8   1,700   10.8   1,700   10.8   1,700   | 1 7,363 2 1 2,499 2 1 1 7,363 3 1 7,966 4 1 8,829 1 7,781 1 7,828 1 7,781 1 7,828 1 7,781 1 7,828 1 7,781 1 7,828 1 7,791 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7,828 1 7,991 1 7, | 5pf<br>2.612, 4.602<br>4.602<br>6.682<br>6.946<br>7.256<br>6.860<br>6.956<br>6.946<br>5.989<br>3.377<br>3.213<br>3.644<br>4.401<br>4.277<br>3.515<br>3.135<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3.125<br>3    | bpf 4.440 7.824 11.360 11.808 12.335 11.808 10.181 7.881 5.740 5.462 6.195 7.482 7.271 5.976 5.330 5.792 6.870 12.175 19.181 11.850 19.181 18.503 19.282 19.509 19.576 20.742  | 961530 2 1020138 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 1106.026 1.1 110.0 | Section  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.000000  | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.000<br>0.001<br>0.000<br>0.001<br>0.000<br>0.001<br>0.000<br>0.001<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.000000   | 980.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.560<br>490.760<br>432.720<br>319.501<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>76.574<br>106.847<br>160.645<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>176.574<br>1 | 0.865 99 1.835 10 3.158 88 3.301 11 3.158 88 3.321 7. 2.981 5- 3.141 48 3.172 42 2.640 3. 1.914 22 1.152 11 1.173 11 1.713 11 1.713 11 1.713 12 1.152 11 1.713 12 1.152 11 1.713 13 1.7  | 19.460 2.438.451 19.460 2.438.451 19.261 19.   | 46,273<br>28,014<br>17,942<br>16,981<br>16,476<br>20,485<br>17,434<br>16,596<br>19,397<br>24,694<br>34,399<br>39,734<br>43,589<br>39,734<br>43,589<br>46,373<br>47,171<br>41,999<br>29,106<br>17,681<br>11,1319<br>9,102<br>8,550<br>8,913<br>8,891<br>9,044<br>9,286<br>8,897  | 0%<br>0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>0.000<br>46.318<br>0.000<br>0.000<br>0.000<br>0.000<br>46.318<br>71.862<br>71.669<br>71.659<br>71.659<br>71.659<br>71.659<br>71.659<br>71.659  | deg<br>0.000<br>34.043<br>36.381<br>36.871<br>36.871<br>36.655<br>35.777<br>34.243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | -0.476 -0.4276 -0.4276 -0.398 -0.398 -0.398 -0.399 -0.399 -0.399 -0.390 -0.300 -0.300 -0.300 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.277 -0.249 -0.228 -0.233 -0.238 -0.233 -0.240 -0.241 -0.244   | 0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.824 2.918 2.841 2.824 3.106 3.615 0.000  | tef 0.000 70.541 91.254 93.541 95.858 91.024 93.748 85.712 72.346 0.000  | 1st   1.0  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10.000   | MPa 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.473 1. 1.1873 1. 1.1968 1. 1.1968 1           | 4.4.727<br>1.247<br>1.1048<br>1.1048<br>1.377<br>1.078<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1.378<br>1. | 14.727<br>14.727<br>51.048<br>53.717<br>50.783<br>53.844<br>45.3586<br>44.925<br>21.425<br>19.633<br>22.581<br>21.425<br>19.633<br>22.581<br>21.425<br>19.633<br>22.750<br>29.219<br>27.571<br>17.608<br>29.219<br>27.571<br>17.608<br>33.647<br>53.647<br>53.647<br>53.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.647<br>54.64   |
| ST   ST   ST   ST   ST   ST   ST   ST  | Section   Sect | Section   Sect   | 8   | 7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6<br>6                | 8 8 8 8 8 8 8 5 5 5 5 5 5 4 4 4 5 5 6 6 6 6 6 6 6 6 6    | ped<br>114,551<br>114,551<br>117,733<br>117,733<br>117,733<br>117,733<br>114,551<br>117,733<br>117,733<br>117,733<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>114,551<br>11 | tef  | 1   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.000000  | 1,700   43.3   1,700   13.7   1,700   13.7   1,700   13.7   1,700   13.7   1,700   13.7   1,700   10.7   1,700   10.7   1,700   10.7   1,700   10.7   1,700   10.7   1,700   10.7   1,700   | bpf 1 7,383 1 1,783 2 12,493 2 12,493 2 12,493 3 17,906 6 18,825 9 14,975 6 18,825 9 14,975 6 13,032 11,375 11,375 12,185 11,383 13,786 11,383 13,786 11,583 | bpf 2,612 4,602 6,864 6,860 6,966 5,986 5,989 4,624 4,401 4,277 3,515 3,135 3,125 3,407 4,041 1,525 1,1536 1,1536 11,536   | bef 4.440 7.824 11.360 11.808 12.335 11.662 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 6.870 8.878 12.175 15.619 17.360 18.191 18.503 18.191 18   | 961530 2 2 1020138 1.1 1106.026 1.3 1020138 1.1 1106.026 1.3 1.1 1106.026 1.3 1.1 1106.026 1.3 1 | %         bf           %         bf           bf         bf           bf         31:316           32:23         19:168           32:23         19:168           32:24:100         31:316           32:24:50         32:24:50           32:24:50         32:24:50           32:24:50         31:25:26           36:50         31:25:26           36:50         31:25:26           30:72         30:72           30:72         31:26:26           30:72         31:26:26           30:72         31:26:26           31:27         31:26:26           31:27         31:26:26           31:27         31:26:26           32:27         31:26:26           33:77         13:26:26           33:77         12:28:37           33:46:26         45:26:37           34:27         31:26:26           35:27         42:26:26           35:27         31:26:26           36:27         31:26:26           36:27         31:26:26           37:27         31:28:26           37:27         31:28:26           37:27   | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001 | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.002<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 980.167<br>1018.459<br>1105.221<br>867.245<br>726.828<br>543.580<br>490.760<br>432.720<br>319.501<br>208.169<br>124.150<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>63.524<br>75.574<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.847<br>106.848<br>213.3567<br>223.3567<br>223.3567<br>228.389<br>225.434  | 0.855 99 1.835 10 3.001 11 3.158 86 3.3021 7. 2.861 5- 3.3121 2. 2.861 5- 3.141 43 3.172 4. 2.3141 42 1.152 16 1.152 16 1.153 11 1.173 11 1.173 11 1.171 11 1.241 8 1.066 6 1.035 6 1.190 7 2.054 11 1.113 6 1.130 7 2.054 11 1.113 6 1.158 11 1.158 1  | 19.460 2.438.461   | \$ 46.273   | 0.000<br>76.299<br>84.491<br>81.746<br>79.941<br>74.277<br>73.553<br>71.882<br>64.909<br>54.194<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>45.768<br>66.958<br>71.060<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.1560<br>71.156 |  | -0.476 -0.427 -0.398 -0.398 -0.398 -0.396 -0.350 -0.350 -0.350 -0.350 -0.280 -0.000  | 0.000 3.680 2.910 2.835 2.763 2.918 2.841 2.828 3.106 3.615 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.804 2.380 2.247 2.201 2.152 2.151 2.152 2.111  | usf 0.000 0.000 93.544 99.000 0.000  | 181 0.602 0.000  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10.000   | MPa 1.473 1 1.           | 4.4.727<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.24 | 14,727<br>31,247<br>51,048<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50,783<br>50 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Section  | Section   Sect   | 8   | 7 7 7 7 7 7 7 7 7 6 6 6 6 7 7 7 7 7 7 7   | 8 8 8 8 8 8 8 5 5 5 5 5 5 4 4 4 5 5 6 6 6 6 6 6 6 6 6    | per   114,551   117,733   117,735   114,551   114,551   117,735   117,735   117,735   117,735   117,735   117,735   117,735   117,735   117,735   117,735   117,735   117,735   114,551  | tef  | 1sf   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.21   1,700   13.21   1,700   13.21   1,700   13.21   1,700   13.21   1,700   1,70  | bpf 1 7,363 1 1,7363  | bpf 2,512 4,602 6,886 6,946 5,989 4,624 3,377 3,515 3,135 3,125 3,407 4,041 1,535 1,1535 1,1535 1,1535 1,1535 1,1535 1,1535 1,1535 1,1535 1,12328 1,12  | bpf 4 4444 7 7824 11.360 7 824 11.360 11.808 12.335 11.825 11.825 11.825 11.825 11.825 11.808 10.181 7.861 5.740 5.462 6.195 7.482 7.271 5.976 5.330 8.878 12.175 15.619 17.360 18.8578 12.175 15.619 17.360 18.8578 12.175 19.676 19.576   | 961530 2 2 1020138 1. 1106.026 | 66 bf  13. 9,033  1323 19.168  13. 9,033  1323 19.168  1553 32.945  1553 32.945  1553 32.945  1553 32.945  1553 32.945  1665 31.125  1665 31.125  1665 31.125  1665 31.125  1665 31.125  1665 31.125  1665 31.125  1665 31.125  17.00  17   | 0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 0.001<br>0.002<br>0.001<br>0.000<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001 | 990.167<br>1018.459<br>1108.221<br>867.245<br>726.828<br>843.560<br>490.760<br>432.720<br>319.501<br>208.169<br>104.245<br>111.573<br>133.389<br>117.485<br>84.270<br>68.015<br>62.297<br>63.524<br>75.574<br>106.847<br>160.645<br>237.194<br>240.345<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.089<br>225.444<br>233.567<br>228.391<br>220.292<br>225.444<br>233.567<br>228.391<br>220.292<br>225.444<br>233.285<br>236.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>237.444<br>2 | 0.855 9 1.835 10 3.001 11 3.001 11 3.001 11 3.001 11 3.001 11 3.001 11 3.158 86 3.158 87 3.158 97 3.158 98 3.161 41 4.158 11 1.158 11 1.159 11 1.173 11 1.171 11 1.241 8 1.159 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 17 1.259 18 1.259  | 19.460 2.438.461   | % 46.273 28.014 17.942 16.581 16.581 16.581 16.581 17.434 16.596 19.397 24.694 34.399 38.101 35.979 39.734 43.589 46.373 47.171 14.1999 29.106 17.681 17.811 9.102 8.550 8.913 8.8611 9.044 9.286 8.897 8.523 8.819 11.888  | \$\frac{\chi}{100}\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \  | 6eg 0 0.000 33.043 36.838 36.810 36.838 36.851 35.777 34.243 36.858 36.851 35.777 34.243 37.22 36.858 36.85   | -0.476 -0.427 -0.398 -0.382 -0.396 -0.350 -0.350 -0.350 -0.350 -0.350 -0.280 -0.000  | 0.000<br>3.680<br>2.910<br>2.815<br>2.763<br>3.000<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615<br>3.615  | tef 0.000 70.641 91.254 91.255 91.254 91.255   | 0.000  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10.000   | MPa   1.473   1.145   1.473   1.25   3   3.125   3   3   3   3   3   3   3   3   3   | 4.4.727<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247   | 14,727<br>31,247<br>51,048<br>53,948<br>44,925<br>53,484<br>43,581<br>53,986<br>44,925<br>53,484<br>44,925<br>53,484<br>49,925<br>52,750<br>52,750<br>75,750<br>76,839<br>83,386<br>76,839<br>98,842<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982<br>99,982   |
| 51   | Section   Sect | Section   Sect   | 8   | 7 7 7 7 7 7 7 7 7 6 6 6 6 7 7 7 7 7 7 7   | 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>117.733<br>114.551<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>115.51<br>116.551<br>117.733<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120.918<br>120 | tel  | I st f r st   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 1,700   43.3   1,700  | bpf 1 7,363 1 1  | bg/ 2,612 4,602 4,602 6,682 6,946 6,  | 4.440<br>4.440<br>11.800<br>12.335<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.825<br>11.8 | 961.530 2 2 1020.138 1.1 1106.026 1.3 105.0 12 1020.138 1.1 1106.026 1.3 1.1 1106.026 1.3 12.1 1106.02 | 66 bl  13. 9,033 1523 19.168 1533 19.033 1523 19.168 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1535 154 154 155 154 155 154 155 154 155 155 154 155 155 155 155 155 155 155 155 155 155 155  | 0.001 0.002 0.0001 0.0000   | 0.001 0.002 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | 980.167<br>1018.489<br>867.245<br>867.245<br>867.245<br>867.245<br>867.245<br>867.245<br>840.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>1490.760<br>14   | 0.855 99 1.835 101 3.001 11 3.  | 19.460 2.438.461   | \$ 46.273   28.014   17.934   17.942   16.981   16.981   16.981   17.934   17.934   18.936   19.937   19.936   19.937   1   | \$\frac{\pi}{100}\$  \text{3.5}   \text{4.5}  \text{3.5}  \text{4.5}  \text{3.5}   \text{3.5}   \text{3.5}   \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  \text{3.5}  3.5  | 69) 0.000 34 043 35.388 56.531 35.724 35.535 35.72 35.   | -0.476 -0.427 -0.398 -0.395 -0.395 -0.395 -0.350 -0.350 -0.350 -0.350 -0.328 -0.308 -0.000  | 0.000<br>3.680<br>2.910<br>2.915<br>2.765<br>3.106<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000  | tel 0.000 70.841 91.254 92.254 93.541   | 0.000  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000<br>10,000 | MPa   1,473   1              | 1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14,727<br>31,247<br>51,048<br>53,717<br>56,487<br>50,783<br>53,484<br>53,986<br>44,925<br>19,633<br>22,581<br>121,425<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>19,633<br>1 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Section   Sect | Section   Sect   | 8   | 7 0 0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7   | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | isd usful in the control of the cont | 1919 - 0.000000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.000000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.0000000 - 0.000000 - 0.000000 - 0.000000 - 0.0000000 - 0.00000000   | No.   | 1,700   43.3   1,700   16.3   1,700   16.3   1,700   16.3   1,700   1.3   1,700   1.3   1,700   1.3   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   1.0   1,700   | hpf 1 7.363 1  | bpf 2.612 4.602 4.602 6.682 6.985 6.896 6.996 6.996 6.996 6.996 6.996 4.624 3.377 3.213 3.644 4.401 4.201 7.301 7.001 7.  | ber   4.440   4.400  | 961.530 2 2 1020.138 1.1 1106.026 1. 1 106.0 | 66 bef 133 9.053 323 19.168 8053 323 19.168 8053 323 19.168 8053 32.945 5053 3   | 0.001 0.002 0.001 0.002 0.001 0.0001  | 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.002 0.002 0.002 0.003 0.002 0.003   | 980.167 1018.489 867.246 867.246 867.246 867.246 105.247 105.2   | 0.885 94 94 94 94 94 94 94 94 94 94 94 94 94  | 19.460 2.435 4.505 2.451 4.505   | % 46 273 28 014 46 273 28 014 46 273 28 014 46 273 28 014 46 273 28 014 21 16 981 20 24 16 981 20 24 16 98 21 24 16 24 1  | \$4.91   1.00   1   | 690<br>36 383<br>36 388 373<br>36 388 363<br>36 371<br>36 387<br>36 372<br>37 372<br>37 372<br>38 372<br>3   | -0.476 -0.396 -0  | 0.000<br>3.880<br>2.855<br>2.763<br>3.106<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | tef 0.000  | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | Bef   0.002   | 10,000   | MPa   1.473   1.145   1.473   1.145   1.473   1.145              | 1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14,727<br>31,247<br>51,048<br>50,783<br>51,975<br>56,487<br>50,783<br>53,986<br>53,484<br>53,986<br>53,484<br>53,986<br>53,484<br>53,986<br>53,484<br>53,986<br>53,484<br>53,484<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57,571<br>57 |
| 51   | Section   Sect | Section   Sect   | 8   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | tel  | Text  | 6 0000 0000 0000 0000 0000 0000 0000 0  | 1,700   43.3   1,700   15.5   1,700   15.5   1,700   15.5   1,700   15.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   10.5   1,700   | 7.83   1.1   1.1   1.2   1.3   | by 1 2612 4602 2612 4602 6946 6682 6946 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566 6.566   | bg/<br>7.824 4.440<br>7.824 4.440<br>11.1860<br>11.1808<br>12.335<br>11.622<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.625<br>11.62   | 961.530 2 2 1020.138 1.1 1106.026 1. 1 106.0 | 66 bef 133 9.053 323 19.168 8053 323 19.168 8053 323 19.168 8053 32.945 5053 3   | 0.001 0.002 0.001 0.002 0.001 0.0001  | 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.002 0.002 0.002 0.003 0.002 0.003   | 980.167 1018.489 867.246 867.246 867.246 867.246 105.247 105.2   | 0.885 94 94 94 94 94 94 94 94 94 94 94 94 94  | 19.460 2.435 4.505 2.451 4.505   | 46.273.744.45.275.26.16.16.26.26.26.26.26.26.26.26.26.26.26.26.26   | \$\frac{\pi}{100}\$ \text{ \$\frac{\pi}{1000}\$ \text{ \$\frac{\pi}{10000}\$ \text{ \$\frac{\pi}{10000}\$ \text{ \$\frac{\pi}{10000}\$ \text{ \$\frac{\pi}{10000}\$ \text{ \$\frac{\pi}{100000}\$ \text{ \$\frac{\pi}{1000000000000000000000000000000000000  | 690<br>34 043<br>36 338<br>36 631<br>36 631<br>36 631<br>36 383<br>36 611<br>36 383<br>37 243<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.   | -0.476  | 0.000<br>3.890<br>2.815<br>2.910<br>2.910<br>2.910<br>2.910<br>2.910<br>2.910<br>2.910<br>3.160<br>3.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000  | 187 0.000 170 541 170 170 170 170 170 170 170 170 170 17   | 18   | 0.002<br>0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 10.000   | MPa 1.473 1.125 3 3.125 3 5.105 5 5.107 5 5.108 5 5.108 5 5.108 5 5.109 5 5.10           | 1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14,727<br>31,247<br>51,048<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>53,916<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54,917<br>54 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Eleva  | Section   Sect   | 8   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | sid substitution of the su | 1919 - 0.000000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.000000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.00000 - 0.0000000 - 0.000000 - 0.000000 - 0.000000 - 0.0000000 - 0.00000000   | 6 0.000 0.00  | 1,700   43.3   1,700   16.3   1,700   1.3   | Section   Sect   | by 1 2-612 4-602 4-602 6-94-6 6-682 6-94-6 6-886 6-94-6 6-95-6 6-94-6 6-  | bp/ hbp/ 4.440 7.824 4.440 7.824 4.440 11.36   | 961.530 2 2 1020.138 1.1 1106.026 1. 1 106.0 | 66 bl  13. 9,033 1523 19.168 1533 19.033 1523 19.168 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1533 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1534 12.246 1535 154 154 155 154 155 154 155 154 155 155 154 155 155 155 155 155 155 155 155 155 155 155  | 0.001   |   | 980.167 1018.459 1018.21110.2211 1018.21110.2211 1018.21110.2211 1018.2121 1   | 0.885 94 94 94 94 94 94 94 94 94 94 94 94 94  | 19.460 2.43% d. 2.43% d. 2.43% d. 2.43% d. 2.43% d. 2.43% d. 2.13%   | \$4 6273 28 68 69 33 69 31 69 32 88 69 33 69 31 71 7239 38 88 91 91 7239 38 88 91 91 7239 38 91 91 7239 38 91 91 7239 38 91 91 7239 38 91 91 7239 38 91 91 91 91 91 91 91 91 91 91 91 91 91   | \$\frac{1}{17}\$  \text{3.17}\$   \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text{3.17}\$  \text  | 69) 43 633 36 388 36 313 36 388 36 313 36 388 36 313 36 388 36 313 36 318 36 313 36 318 36 313 36 313 36 313 37 37 37 37 37 37 37 37 37 37 37 37 37  | -0.47b -0.42c -0  | 0.000<br>3.880<br>2.835<br>2.763<br>3.106<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.   | M  | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 0.002<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 100 000 000 000 000 000 000 000 000 000  | MPa   1,473   1,1473            | 1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14,727<br>31,247<br>51,048<br>51,048<br>53,965<br>53,484<br>53,965<br>53,484<br>53,965<br>52,581<br>19,633<br>52,581<br>19,633<br>52,581<br>18,147<br>52,752<br>19,633<br>53,037<br>54,891<br>54,925<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54,931<br>54 |
| 51   S1800c1   S1800c1   S150   S150  | Section   Sect | W   W   N   N   N   N   N   N   N   N  | 8 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 5 7 7 7 5 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 7 7 7 5 7 | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>12 | self state   self  |   |   | 1,700   43.3   1,700   13.3   1,700   13.3   1,700   13.3   1,700   13.3   1,700   1  | 596   1   597   1   1   1   1   1   1   1   1   1  | 261 261 261 261 261 261 261 261 261 261   | bpt  4.440  7.824  4.440  7.824  4.440  7.824  11.360  7.824  11.360   | 961.530 2 2 1020.138 1.1 1106.026 1.   | 6  | 0.001   |   | 960.167 1011.459 1016.271 1011.459 1017.459 1018.271 1018   | 0.855 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9   | 19.460 2.438.428.428.438.438.438.438.438.438.438.438.438.43  | \$ 46,273,280,000,000,000,000,000,000,000,000,000   | \$\frac{\pi}{162}\$ \text{ \$\frac{\pi}{162}\$ \$\text{ \$\frac{\pi}{162}\$ \$  | deg  | -0.476  | 3.880 0.000  | M  | 181  | Section   Sect  | 10.000   | , 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,   | 1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14,727<br>31,247<br>51,048<br>52,717<br>56,487<br>50,783<br>53,484<br>44,925<br>32,581<br>19,633<br>32,581<br>19,633<br>32,581<br>19,633<br>32,581<br>19,633<br>33,037<br>54,833<br>33,451<br>33,451<br>33,451<br>33,451<br>33,451<br>34,493<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36,491<br>36 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Section   Sect | Section   Sect   | 8   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735  | 18f    | 1   |   | 1,700   43.21   1,700   1,70  | Description  | by 1 2.612 4.602 6.982 6.986 6.986 6.986 6.986 6.986 6.986 6.946 6.987 3.213 3.354 4.401 4.401 4.401 6.712 6.716 6  | bef  | 961.530 2 2 1020.138 1.1 1106.026 1.1 1106.0 | Mathematics  | 0.001 0.002 0.002 0.002 0.002 0.0001 0.0002 0.0001 0.0002 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0001 0.0000 0.0000 0.00000 0.0000   | 0.001<br>0.002<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 980.167 1011.459 1016.221 1016   | 0.855 94 1.835 103 3.001 11 3.001 11 3.001 11 3.001 11 3.158 88 3.321 7. 2.081 5. 3.142 44 3.321 7. 2.081 5. 3.142 44 3.172 44 4.51 44  | 19.4620 2 2.48524 2 3.8952   | \$\frac{46.273}{28.014}\$ \tag{2.80}\$ \tag{3.80}\$  | \$. 0.000   76.299   181.76   1   | 689, 0.000 34,043, 0.000 34,043, 0.000 36,388, 0.000 36,381, 0.000 36,381, 0.000 36,381, 0.000 38,577 34,243 0.000   | -0.476  | 0.000<br>3.880<br>2.910<br>2.835<br>2.918<br>2.918<br>2.918<br>2.918<br>2.918<br>2.828<br>3.618<br>3.618<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | M 0.000 70.541 93.541 93.541 93.541 93.543 93.72 94.50 94.50 94.50 94.50 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 95.888 95.72 9   | 181 0 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6  | Section   Sect  | 110,000 0,00   | NB-1 1473           | 4.1727<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247 | 14,727 31,247 51,045 51,045 51,045 53,717 56,487 50,783 53,484 44,925 52,581 53,986 44,925 52,581 53,986 44,925 52,581 53,986 54,925 52,581 53,986 54,925 52,581 53,986 54,925 52,757 17,608 19,047 19,047 19   |
| ST   ST   ST   ST   ST   ST   ST   ST  | New   New  | ## ## ## # # # # # # # # # # # # # # #   | 8 8 5 5 6 6 6 7 7 6 6 6 6 7 7 6 6 6 6 7 7 6 6 6 7 7 6 6 6 7 7 7 6 6 7 6 7 6 6 6 7 7 7 6 6 7 7 6 7 6 7 6 7 6 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | per   114.551   114.551   117.733   117.735  | sid         tal         page 1           color         0.00         0  | 1   | 1 0.000 0.00  | 1,700   43.3   1,700   13.4   1,700   13.5   1,700   13.5   1,700   10.5   1,700   1,70  | 59   1   1   2   2   2   2   2   2   2   2   | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1  | bef  | 961.530 2 2 1020.138 1. 1106.026 1. 106.026  | Mathematics  | 0.001 0.001 0.000   | 0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 980.167 1018.459 867.246 867.246 867.246 867.246 104.2270 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 104.2470 105.247  | 0.865 9 3 3 3 3 3 3 1 7 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 4 3 4 3 4 4 3 4 4 3 4 4 3 4 4 3 4 4 4 4 3 4   | 19.460 2.4385 2.   | 5. 46.273 2.00 14 15 15 15 15 15 15 15 15 15 15 15 15 15  | \$\frac{\pi}{16}\$ (20)   | deg  | -0.467<br>-0.477<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0.392<br>-0  | 0.000 3.880 2.835 2.910 2.835 2.911 2.835 2.918 3.615 0.000  | tel 0,000  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 1 000 000 000 000 000 000 000 000 000 0   | 10,000 0.000   | , Help 1, 1473 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 4.727<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247<br>1.247  | 14, 727<br>31 247<br>51 048<br>51 048<br>55 777<br>56 487<br>50 783<br>53 484<br>44 925<br>53 986<br>44 925<br>52 929<br>19 653<br>22 750<br>22 750<br>22 750<br>22 750<br>21 750<br>23 754<br>24 750<br>25 750<br>27 750<br>28 750<br>2 |
| ST   ST   ST   ST   ST   ST   ST   ST  | Section   Sect | Section   Sect   | 8 8 5 5 6 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>8<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 8 8 8 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5 5                  | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | sid         tal         page 1           color         0.00         0  | 1   |   | 1,700   43.2   1,700   10.2   1,700   13.2   1,700   13.2   1,700   13.2   1,700   10.5   1,70  | bpf   principal   bpf    | December 2  | bef  | 961.530  | Mathematics  | 0.001 0.002 0.002 0.002 0.002 0.002 0.001 0.002 0.001 0.002 0.001   | 0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 980.167<br>1018.459<br>867.245<br>867.245<br>9400.760<br>104.225<br>104.250<br>104.225<br>105.250<br>104.225<br>105.250<br>104.225<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.    | 0.865 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3   | 19.46.00 2.436.00 2.4   | 5. 46.273 2.014 1.01 1.01 1.01 1.01 1.01 1.01 1.01  | \$\frac{1}{16}\$ (\$\frac{1}{16}\$) (\$   | 689, 0.000 34,043, 0.300 36,338 36,331 36,331 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,372 38,372 38,372 38,372 38,373  | 0.476<br>0.427<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392 | 0.000<br>3.880<br>2.910<br>2.835<br>2.918<br>2.918<br>2.918<br>2.918<br>3.106<br>3.3615<br>3.3615<br>3.3615<br>3.3615<br>3.3615<br>2.900<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.00   | 18   | 181 0.000 0. | William   | 110,000 0.00   | NP <sub>1</sub> 1473 1 147 | 1.247  | 14,727 31,247 51,048 51,048 53,747 55,487 55,487 55,487 55,487 55,488 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 53,585 53,484 53,585 53,485 53,687 54,881 53,687 54,881 53,687 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,887 55,688 53,487 56,888 56,888 56,888 57,888   |
| 15   | Eleva  | Section   Sect   | 8 8 5 6 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 7 6 7 6 7 7 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>8<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                    | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | tal  |   | R   | 1,700   43.2   1,700   15.5   1,700   13.3   1,700   13.5   1,700   13.5   1,700   10.5   1,700   | bel    | Epi   | bef  | 961.530  | Mathematics  | 0.001 0.002 0.002 0.002 0.002 0.002 0.001 0.002 0.001 0.002 0.001   | 0.001<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 980.167<br>1018.459<br>867.245<br>867.245<br>9400.760<br>104.225<br>104.250<br>104.225<br>105.250<br>104.225<br>105.250<br>104.225<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.250<br>105.    | 0.865 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3   | 19.46.00 2.436.00 2.4   | 5. 46.273 2.014 1.01 1.01 1.01 1.01 1.01 1.01 1.01  | \$\frac{1}{16}\$ (\$\frac{1}{16}\$) (\$   | 689, 0.000 34,043, 0.300 36,338 36,331 36,331 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,363 38,372 38,372 38,372 38,372 38,373  | 0.476<br>0.427<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392<br>0.392 | 0.000<br>3.880<br>2.910<br>2.835<br>2.918<br>2.918<br>2.918<br>2.918<br>3.106<br>3.3615<br>3.3615<br>3.3615<br>3.3615<br>3.3615<br>2.900<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.300<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.00   | 18   | 181 0.000 0. | William   | 110,000 0.00   | NP <sub>1</sub> 1473 1 147 | 1.247  | 14,727 31,247 51,048 51,048 53,747 55,487 55,487 55,487 55,487 55,488 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 53,585 53,484 53,585 53,485 53,687 54,881 53,687 54,881 53,687 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,887 55,688 53,487 56,888 56,888 56,888 57,888   |
| 15   | Selection  | Section   Sect   | 8 8 5 5 6 6 6 7 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 7 6 6 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 7 6 7 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 0 0 0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                  | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>11 |  | March   Marc  | 1   | 1,700   43.3   1,700   15.5   1,700   13.7   1,700   13.7   1,700   13.7   1,700   1  | bef    | by 1  | bef  | 961.530 2 2 1020.138 1.1 1106.026 1.1 1106.0 | 86 bl 87 bl 88 bl 89 bl  | 0.001 0.002 0.003   |   | 980.167 1018.459 1018.459 1018.459 1018.251 1018.251 1018.252 1018   | 0.865 9 3 3 3 3 3 3 3 7 3 3 3 3 3 3 7 3 3 3 3   | 19.460 2. 2.486 2. 3.886 2. 4. 3. 3.886 2. 4. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.   | 5. 46.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.2014 2.01  | \$\frac{\pi}{162}\$ (20.00) \$\frac{\pi}{162}\$   | 699, 0.000 34 (0.43) 36 (3.81) 36 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 39 (3   | -0.472<br>-0.427<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.0000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.00000<br>-0.00000<br>-0.00000<br>-0.00000000  | 0.000<br>3.880<br>2.835<br>2.910<br>2.835<br>2.918<br>2.835<br>2.918<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.   | 10 0.000 170 181 181 181 181 181 181 181 181 181 18  | 181  | Section   Sect  | 110,000 (100,000) (100,000 (100,000 (100,000 (100,000 (100,000 (100,000 (100,000) (100,000 (100,000 (100,000 (100,000) (100,000 (100,000) (100,000) (100,000 (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,0   | MPa  | 1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.24  | 14,727 31,247 51,048 51,048 53,747 55,487 55,487 55,487 55,487 55,488 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 525 53,484 53,585 53,484 53,585 53,485 53,687 54,881 53,687 54,881 53,687 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,881 55,688 53,487 54,887 55,688 53,487 56,888 56,888 56,888 57,888   |
| 51   M1500c b   51   Cappin   Cappin   52   Cappin   Cappin   53   Cappin   Cappin   54   Cappin   Cappin   55   Cappin   Cappin   55   Cappin   Cappin   56   Cappin   Cappin   57   Cappin   Cappin   58   Cappin   Cappin   59   Cappin   50   Cappin   5 | Selection  | Section   Sect   | 8 8 5 5 6 6 6 7 7 7 6 6 7 7 6 6 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 7 6 7   | 7<br>0<br>0<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                | 8 8 0 0 0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                  | ped<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>117.735<br>11 |  | March   Marc  | 1   | 1,700   43.2   1,700   15.5   1,700   13.3   1,700   13.5   1,700   13.5   1,700   10.5   1,700   | bef    | bpf   26   4   602   4   602   4   602   4   602   4   602   4   602   4   602   6   6   6   6   6   6   6   6   6  | bef  | 961.530 2 2 1020.138 1.1 1106.026 1.1 1106.0 | 86 bl 87 bl 88 bl 89 bl  | 0.001 0.002 0.002 0.003   |   | 980.167 1018.459 1018.459 1018.459 1018.251 1018.251 1018.252 1018   | 0.865 9 3 3 3 3 3 3 3 7 3 3 3 3 3 3 7 3 3 3 3   | 19.460 2. 2.486 2. 3.886 2. 4. 3. 3.886 2. 4. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.   | 5. 46.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.273 2.014 45.203 2.014 45  | \$\frac{\pi}{162}\$ (20.00) \$\frac{\pi}{162}\$   | 699, 0.000 34 (0.43) 36 (3.81) 36 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 38 (3.81) 39 (3   | -0.472<br>-0.427<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.382<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.0000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.0000<br>-0.00000<br>-0.00000<br>-0.00000<br>-0.00000000  | 0.000<br>3.880<br>2.835<br>2.910<br>2.835<br>2.918<br>2.835<br>2.918<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.316<br>3.   | 10 0.000 170 181 181 181 181 181 181 181 181 181 18  | 181  | Section   Sect  | 110,000 (100,000) (100,000 (100,000 (100,000 (100,000 (100,000 (100,000 (100,000) (100,000 (100,000 (100,000 (100,000) (100,000 (100,000) (100,000) (100,000 (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,000) (100,0   | MPa  | 1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.247<br>1.1.24  | 14, 727<br>31, 247<br>51, 048<br>53, 717<br>55, 487<br>53, 787<br>55, 487<br>53, 986<br>44, 925<br>53, 986<br>44, 925<br>53, 986<br>44, 925<br>52, 198<br>52, 198<br>52, 198<br>52, 198<br>52, 198<br>53, 198<br>54, 198<br>54, 198<br>54, 198<br>55, 198<br>56, 19  |

| A B C D E F G H  | J K L                                     | M N  | O P Q R  | S T U V W   | X Y Z AA AB AC AD 59.562 1.357 26.750 0.002 0.002 59.458 2.601   | AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR<br>60.458 2.309 22.843 40.814 35.190 0.166 3.300 89.798 0.000 0.000 0.000 3.972 39.725 39.725  |
|--|---|--|--|---|--|--|
| 102 2.400 7.874 -2.400 -7.874 25.516 0.402 1.020 1.575 6   | 5 7 6                                     | 5 5 114.551  | 1 0.459 0.459 0.000 0.000  |   | 54.651 1.604 25.058 0.001 0.001 54.581 2.441   | 55.582 2.378 25.511 38.686 34.835 -0.174 3.418 87.259 0.000 0.000 0.000 3.512 35.725 35.725  |
| 103 2.450 8.038 -2.450 -8.038 29.267 0.387 1.180 1.322   | 5 7 6                                     | 5 117.733  | 3 0.468 0.468 0.000 0.000  | 1.493 9.346 13.957 6.562 9.800  | 61.533 1.344 28.799 0.001 0.001 61.454 2.800   | 62.454 2.288 22.067 42.323 35.441 -0.168 3.217 94.180 0.000 0.000 0.000 4.187 41.872 41.872  |
| 104 2.500 8.202 -2.500 -8.202 34.036 0.386 1.010 1.134 1.015 2.550 8.366 -2.550 -8.366 49.245 0.412 0.730 0.837  | 5 7 6                                     | 5 117.733  | 3 0.478 0.478 0.000 0.000<br>3 0.488 0.488 0.000 0.000   | 1.478 10.869 16.067 7.348 10.862<br>1.464 15.725 23.015 9.796 14.333  | 70.252 1.150 33.559 0.001 0.001 70.186 3.258   | 71.186 2.199 18.945 46.357 36.114 -0.167 2.997 102.049 0.000 0.000 0.000 4.820 48.201 48.201 101.000 1.994 12.780 56.658 37.830 -0.172 2.500 123.156 0.000 0.000 0.000 6.904 69.044 69.044   |
| 106 2.600 8.530 -2.600 -8.530 58.165 0.462 0.750 0.794 8   | 6 8 6                                     | 6 120.915  | 5 0.497 0.497 0.000 0.000  | 1.449 13.930 20.186 11.273 16.335   | 116.001 0.801 57.668 0.000 0.000 115.954 5.570   | 116.954 1.925 11.002 61.144 38.578 -0.181 2.330 135.584 0.000 0.000 0.000 8.074 80.743 80.743  |
| 107 2.650 8.694 -2.650 -8.694 59.424 0.506 0.700 0.852 8   | 6 8 6                                     | 6 120.915  | 5 0.507 0.507 0.000 0.000  |   |  | 17.154   |
| 108 2.700 8.858 -2.700 -8.858 54.813 0.515 0.560 0.940 8<br>109 2.750 9.022 -2.750 -9.022 49.273 0.498 0.510 1.011   | 6 8 6                                     |  | 5 0.517 0.517 0.000 0.000<br>3 0.527 0.527 0.000 0.000   | 1.421 13.128 18.654 10.913 15.507<br>1.408 15.735 22.150 10.040 14.133  |  | 05.996   |
| 110 2.800 9.186 -2.800 -9.186 43.061 0.455 0.240 1.057 7   | 6 8 6                                     |  | 3 0.537 0.537 0.000 0.000  |   |  | 80.264 2.118 16.351 51.437 35.960 -0.172 2.736 117.883 0.000 0.000 5.755 57.547 57.547   |
| 111 2.850 9.350 -2.850 -9.350 35.941 0.342 0.150 0.952 7   | 6 8 6                                     |  | 3 0.546 0.546 0.000 0.000  |   |  | 65.810         2.160         17.674         46.000         36.054         -0.143         3.016         108.445         0.000         0.000         0.000         4.760         47.605         47.605   |
| 112 2.900 9.514 -2.900 -9.514 31.410 0.305 0.080 0.971 113 2.950 9.678 -2.950 -9.678 30.921 0.273 0.230 0.883  | 5 7 6<br>5 7 6                            |  | 3 0.556 0.556 0.000 0.000<br>3 0.566 0.566 0.000 0.000   | 1.371 10.030 13.747 6.834 9.367<br>1.359 9.874 13.417 6.690 9.091   | 55.523 0.989 30.855 0.000 0.000 55.518 3.009<br>53.692 0.899 30.356 0.000 0.000 53.680 2.962   | 56518 2.217 19.576 41.887 35.369 -0.131 3.241 101.832 0.000 0.000 0.000 4.124 41.241 41.241 54.680 2.204 19.125 41.191 35.253 -0.119 3.279 101.440 0.000 0.000 0.000 4.000 4.025 40.251 40.251   |
| 114 3.000 9.842 -3.000 -9.842 29.341 0.214 0.150 0.729 7   | 5 7 6                                     |  | 3 0.575 0.575 0.000 0.000  |   |  | 35.007 2.204 19.123 41.131 3.223 41.131 3.225 101.400 0.000 0.000 0.000 3.787 37.872 37.872  |
| 115 3.050 10.006 -3.050 -10.006 27.200 0.213 0.040 0.783 7   | 5 7 6                                     |  | 3 0.585 0.585 0.000 0.000  | 1.336 8.686 11.606 5.954 7.955  | 45.521 0.800 26.616 0.000 0.000 45.519 2.606   | 46.519 2.232 20.068 37.034 34.560 -0.095 3.510 95.511 0.000 0.000 0.000 3.482 34.817 34.817  |
| 116 3.100 10.170 -3.100 -10.170 26.400 0.217 1.620 0.822 7   | 5 7 6<br>5 7 6                            |  | 3 0.595 0.595 0.000 0.000<br>3 0.604 0.604 0.000 0.000   |   | 43.419 0.841 25.806 0.002 0.002 43.334 2.524<br>42.561 1.078 25.706 0.002 0.002 42.475 2.516   | 44.334 2.257 20.948 35.943 34.378 -0.094 3.570 94.292 0.000 0.000 0.000 3.352 33.518 33.518<br>43.475 2.317 23.168 35.615 34.323 -0.113 3.588 94.447 0.000 0.000 0.000 3.314 33.136 33.136   |
| 118 3.200 10.499 -3.200 -10.499 28.271 0.323 1.710 1.143 7   | 5 7 6                                     |  | 3 0.614 0.614 0.000 0.000  | 1.315 8.402 11.045 5.976 7.856<br>1.304 9.028 11.774 6.410 8.360  | 42.501 1.078 25.706 0.002 0.002 42.475 2.516<br>45.070 1.168 27.657 0.002 0.002 44.983 2.703   | 13.475 2.317 23.166 35.515 34.325 -0.113 3.386 94.447 0.000 0.000 0.000 3.532 35.323 35.323 45.983 2.313 2.313 2.316 37.447 34.629 -0.125 3.487 98.622 0.000 0.000 0.000 3.532 35.323 35.323   |
| 119 3.250 10.663 -3.250 -10.663 27.734 0.371 0.650 1.338 6   | 5 7 6                                     | 5 114.551  | 1 0.623 0.623 0.000 0.000  |   | 43.505 1.368 27.111 0.001 0.001 43.472 2.655   | 44.472   |
| 120 3.300 10.827 -3.300 -10.827 30.332 0.346 0.390 1.141 121 3.350 10.991 -3.350 -10.991 41.941 0.374 0.230 0.892  | 5 7 6                                     | 5 117.733  | 3 0.633 0.633 0.000 0.000  | 1.284 9.686 12.441 6.816 8.755<br>1.275 13.393 17.073 8.760 11.167  | 46.941 1.165 29.700 0.000 0.000 46.922 2.905<br>64.293 0.906 41.299 0.000 0.000 64.282 4.017   | 47.922 2.293 22.256 39.027 34.892 -0.129 3.399 103.154 0.000 0.000 0.000 3.732 37.324 37.324 55.282 2.118 16.350 48.098 36.404 -0.137 2.905 121.894 0.000 0.000 0.000 5.122 51.220 51.220  |
| 121 3.350 10.991 -3.350 -10.991 41.941 0.3/4 0.230 0.892 4<br>122 3.400 11.155 -3.400 -11.155 52.738 0.372 -0.370 0.705 8  | 6 8 6                                     | 5 117.733<br>6 120.915   | 3 0.643 0.643 0.000 0.000<br>5 0.652 0.652 0.000 0.000   |   |  | 55.282 2.118 16.350 48.098 96.404 -0.137 2.905 121.894 0.000 0.000 0.000 5.122 51.220 51.220 80.886 1.981 12.433 54.447 37.462 -0.137 2.595 36.920 0.000 0.000 0.000 0.000 6.392 63.920 63.920   |
| 123 3.450 11.319 -3.450 -11.319 59.293 0.405 -1.140 0.683 8  | 6 8 6                                     |  |  |   |  | 89.612 1.933 11.201 57.589 37.986 -0.143 2.462 146.033 0.000 0.000 0.000 7.132 71.324 71.324   |
| 124 3.500 11.483 -3.500 -11.483 65.633 0.444 -1.170 0.676 8  | 6 8 6                                     |  | 5 0.672 0.672 0.000 0.000<br>5 0.682 0.682 0.000 0.000   |   |  | 97.726   |
| 126 3.600 11.811 -3.600 -11.811 84.680 0.598 0.010 0.706 8   | 6 9 6                                     | 6 120.915<br>6 120.915   | 5 0.692 0.692 0.000 0.000  | 1.237 18.182 22.496 14.259 17.642<br>1.228 20.281 24.912 15.797 19.405  | 110.333  | 22.404 1.821 8.573 67.175 39.583 -0.175 2.153 182.407 0.000 0.000 0.000 9.965 99.649 99.649  |
| 127 3.650 11.975 -3.650 -11.975 90.042 0.636 0.390 0.706 8   | 6 9 6                                     | 6 120.915  | 5 0.702 0.702 0.000 0.000  | 1.220 21.565 26.302 16.683 20.348   | 127.316 0.712 89.341 0.000 0.000 127.299 8.625   | 28.299 1.802 8.161 68.730 39.843 -0.179 2.116 190.574 0.000 0.000 0.000 10.521 105.208 105.208   |
| 128 3.700 12.139 -3.700 -12.139 96.679 0.655 1.460 0.677 8   | 6 9 6                                     | 6 120.915<br>6 124.097   | 5 0.712 0.712 0.000 0.000  |   |  | 35.790 1.769 7.464 70.568 40.149 -0.180 2.074 200.623 0.000 0.000 0.000 11.217 112.172 112.172 48.696 1.705 6.209 73.370 40.616 -0.179 2.016 216.482 0.000 0.000 0.000 12.369 123.694 123.694  |
| 129 3.750 12.303 -3.750 -12.303 107.359 0.649 1.520 0.605 9  | 6 9 6                                     |  | 7 0.722 0.722 0.000 0.000<br>7 0.732 0.732 0.000 0.000   |   |  | 48.696 1.705 6.209 73.370 40.616 -0.179 2.016 216.482 0.000 0.000 0.000 12.369 123.694 123.694 61.658 1.662 5.419 75.966 41.048 -0.182 1.964 232.583 0.000 0.000 0.000 13.542 135.416 135.416  |
| 131 3.850 12.631 -3.850 -12.631 125.100 0.602 1.610 0.481 5  | 6 9 6                                     | 6 124.097  | 7 0.742 0.742 0.000 0.000  | 1.186 23.969 28.429 21.606 25.626   | 167.589 0.484 124.358 0.000 0.000 167.521 11.980   | 68.521 1.598 4.332 77.355 41.280 -0.170 1.938 242.567 0.000 0.000 0.000 14.214 142.143 142.143   |
| 132 3.900 12.795 -3.900 -12.795 115.009 0.599 1.520 0.521 5  | 6 9 6                                     |  | 7 0.753 0.753 0.000 0.000  |   |  | 52.831 1.650 5.215 74.750 40.846 -0.168 1.988 228.730 0.000 0.000 0.000 12.979 129.791 129.791   |
| 133 3.950 12.959 -3.950 -12.959 92.408 0.576 2.950 0.623 8   | 6 9 6                                     |  | 5 0.763 0.763 0.000 0.000<br>5 0.773 0.773 0.000 0.000   |   | 120.229 0.629 91.646 0.001 0.001 120.108 8.844<br>93.482 0.644 72.185 0.001 0.001 93.368 6.981   | 21.108 1.776 7.610 68.288 39.769 -0.163 2.126 196.545 0.000 0.000 0.000 10.360 103.596 103.596 103.596 103.68 1.869 9.656 61.328 38.609 -0.142 2.324 169.611 0.000 0.000 0.000 8.126 81.263 81.263   |
| 135 4.050 13.287 -4.050 -13.287 52.887 0.424 2.650 0.802 8   | 6 8 6                                     | 5 120.915  | 5 0.782 0.782 0.000 0.000  | 1.155 12.666 14.633 10.726 12.392   | 66.621 0.814 52.104 0.002 0.002 66.516 5.059   | 67.516 2.044 14.162 51.924 37.041 -0.131 2.713 143.532 0.000 0.000 0.000 5.853 58.533 58.533   |
| 136 4.100 13.451 -4.100 -13.451 35.186 0.431 2.590 1.225   | 5 7 6                                     | 5 5 117.733  | 3 0.792 0.792 0.000 0.000  | 1.148 11.236 12.900 7.924 9.098   | 43.433 1.253 34.394 0.002 0.002 43.331 3.363   | 44.331 2.298 22.441 40.065 35.065 -0.128 3.344 117.710 0.000 0.000 0.000 3.870 38.701 38.701   |
| 137 4.150 13.615 -4.150 -13.615 27.428 0.441 2.910 1.608 6   | 5 7 6                                     | 5 114.551  | 1 0.802 0.802 0.000 0.000<br>1 0.811 0.811 0.000 0.000   |   | 33.225 1.656 26.627 0.003 0.003 33.112 2.619<br>26.935 1.919 21.839 0.009 0.009 26.689 2.151   | 34.112   |
| 138 4.200 13.7/9 -4.200 -13.7/9 22.650 0.419 6.400 1.850 6   | 4 / 5                                     | 4 114.551  | 1 0.811 0.811 0.000 0.000<br>1 0.821 0.821 0.000 0.000   |   |  | 24.906 2.594 35.083 0.000 32.454 -0.110 0.000 0.000 0.000 0.000 0.000 2.240 22.404 23.511  |
| 140 4.300 14.107 -4.300 -14.107 21.907 0.324 10.670 1.479 6  | 5 6 5                                     |  |  |   | 25.406 1.537 21.077 0.015 0.016 25.005 2.067   | 26.005   |
| 141 4.350 14.271 -4.350 -14.271 25.138 0.317 10.910 1.261 6  | 5 7 5                                     | 5 114.551  | 1 0.839 0.839 0.000 0.000<br>1 0.849 0.849 0.000 0.000   |   | 28.962 1.305 24.299 0.014 0.014 28.556 2.376<br>27.001 1.554 22.907 0.014 0.014 26.613 2.244   | 29.557   |
| 143 4.450 14.600 -4.450 -14.600 19.135 0.374 10.340 1.955 6  | 4 6 5                                     | 5 4 114.551  | 1 0.858 0.858 0.000 0.000  |   | 21.307 2.046 18.277 0.017 0.018 20.931 1.802   | 27.514 2.594 30.940 0.000 33.024 0.090 0.000 0.000 0.000 0.000 0.000 2.022 2.0224 25.244 25.2 |
| 144 4.500 14.764 -4.500 -14.764 16.574 0.319 10.310 1.925 6  | 4 6 5                                     | 4 114.551  | 1 0.868 0.868 0.000 0.000  | 1.097 6.351 6.968 4.495 5.128   | 18.113 2.031 15.707 0.019 0.020 17.742 1.557   | 18.742   |
| 145 4.550 14.928 -4.550 -14.928 15.285 0.267 10.410 1.747 6  | 4 6 5                                     | 5 4 114.551<br>5 4 114.551   | 1 0.877 0.877 0.000 0.000<br>1 0.886 0.886 0.000 0.000   |   | 16.437 1.853 14.408 0.021 0.023 16.067 1.433<br>14.978 1.718 13.270 0.023 0.025 14.605 1.324   | 17.067 2.701 40.504 0.000 30.839 -0.060 0.000 0.000 0.000 0.000 0.000 1.598 15.979 16.437 15.605 2.717 41.364 0.000 30.447 -0.044 0.000 0.000 0.000 0.000 0.000 1.472 14.720 14.978  |
| 146 4.600 15.092 -4.600 -15.092 14.156 0.228 10.600 1.611 0  | 4 6 5                                     |  | 1 0.896 0.896 0.000 0.000  |   |  | 15.505 2.717 41.564 0.000 30.447 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 1.472 14.720 14.376 14.327 2.747 43.006 0.000 0.000 0.000 0.000 0.000 0.0818 0.041 3.574 1.351 13.508 13.593  |
| 148 4.700 15.420 -4.700 -15.420 11.653 0.177 10.050 1.519 5  | 4 5 4                                     |  | 1 0.905 0.905 0.000 0.000  |   |  | 12.533 2.793 45.592 0.000 0.000 0.000 0.000 0.000 0.717 0.039 3.230 1.199 11.991 11.880  |
| 149 4.750 15.584 -4.750 -15.584 10.803 0.174 10.090 1.611 5<br>150 4.800 15.748 -4.800 -15.748 10.195 0.162 10.420 1.589 5   | 4 5 4<br>4 5 4                            |  | 1 0.915 0.915 0.000 0.000<br>1 0.924 0.924 0.000 0.000   |   | 10.818 1.760 9.889 0.029 0.032 10.473 1.005<br>10.039 1.747 9.272 0.032 0.035 9.687 0.946  | 11.473   |
| 150 4.800 15.748 -4.800 -15.748 10.195 0.162 10.420 1.589 5  | 3 5 4                                     | 4 114.551  | 1 0.924 0.924 0.000 0.000  | 1.063 4.883 5.192 3.053 3.139<br>1.058 4.387 4.640 2.898 2.912  | 8.816 2.128 8.225 0.037 0.041 8.453 0.845  | 10.587 2.869 50.084 0.000 0.000 0.000 0.000 0.000 0.518 0.041 2.549 1.038 10.384 10.039 9.453 2.961 55.925 0.000 0.000 0.000 0.000 0.000 0.549 0.042 2.140 0.928 9.280 8.816   |
| 152 4.900 16.076 -4.900 -16.076 7.612 0.139 11.600 1.826 5   | 3 5 4                                     | 3 114.551  | 1 0.943 0.943 0.000 0.000  | 1.052 3.646 3.838 2.528 2.453   | 7.078 2.084 6.670 0.048 0.054 6.694 0.695  | 7.694 3.039 61.121 0.000 0.000 0.000 0.000 0.000 0.445 0.045 1.621 0.768 7.675 7.078   |
| 153 4.950 16.240 -4.950 -16.240 6.711 0.097 20.990 1.445 5<br>154 5.000 16.404 -5.000 -16.404 5.763 0.085 21.310 1.475   | 3 4 3                                     | 3 114.551  | 1 0.952 0.952 0.000 0.000<br>9 0.961 0.961 0.000 0.000   |   | 6.051 1.684 5.759 0.098 0.114 5.363 0.580<br>4.997 1.770 4.802 0.115 0.139 4.305 0.488   | 6.363 3.053 62.096 0.000 0.000 0.000 0.000 0.000 0.384 0.082 1.352 0.673 6.733 6.051<br>5.305 3.136 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.320 0.083 1.105 0.575 5.754 4.997  |
| 154 5.000 16.404 -5.000 -16.404 5.763 0.085 21.310 1.475 1   | 3 4 3                                     | 3 111.369  | 9 0.961 0.961 0.000 0.000  |   | 4.997 1.770 4.802 0.115 0.139 4.305 0.488<br>4.108 3.714 3.985 0.147 0.182 3.359 0.405   | 5.305 3.136 0.000 0.000 0.000 0.000 0.000 0.000 0.320 0.33 1.105 0.575 5.754 4.997<br>4.360 3.371 87.120 0.000 0.000 0.000 0.000 0.000 0.266 0.091 0.922 0.492 4.924 4.108   |
| 156 5.100 16.732 -5.100 -16.732 11.527 0.114 26.680 0.989 6  | 4 5 4                                     | 4 114.551  | 1 0.980 0.980 0.000 0.000  | 1.032 4.417 4.560 3.215 3.136   | 10.769 1.081 10.547 0.072 0.079 9.919 1.024  | 10.919 2.741 42.689 0.000 29.226 0.026 0.000 0.000 0.000 0.000 1.140 11.400 10.769   |
| 157 5.150 16.896 -5.150 -16.896 5.095 0.092 40.810 1.806 4   | 3 3 3                                     |  |  |   |  | 3.864 3.255 77.403 0.000 0.000 0.000 0.000 0.000 0.274 0.159 0.931 0.501 5.015 4.153   |
| 158 5.200 17.060 -5.200 -17.060 5.241 0.098 56.180 1.870 4<br>159 5.250 17.224 -5.250 -17.224 5.042 0.049 59.570 0.972   | 3 3 3                                     |  | 1 0.999 0.999 0.000 0.000<br>9 1.008 1.008 0.000 0.000   |   | 4.250 2.310 4.243 0.335 0.413 2.493 0.334<br>4.005 1.215 4.034 0.369 0.461 2.158 0.305   | 3.494 3.253 77.207 0.000 0.000 0.000 0.000 0.000 0.000 0.283 0.219 0.950 0.513 5.134 4.250 3.159 3.150 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.269 0.233 0.903 0.492 4.917 4.005   |
| 160 5.300 17.388 -5.300 -17.388 4.959 0.052 62.310 1.049   | 3 3 3                                     | 1 111.369  | 9 1.017 1.017 0.000 0.000  | 1.013 2.375 2.407 0.000 0.000   | 3.878 1.319 3.942 0.392 0.494 1.964 0.289  | 2.965 3.178 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.263 0.243 0.879 0.481 4.814 3.878  |
| 161 5.350 17.552 -5.350 -17.552 4.969 0.051 65.540 1.026 1<br>162 5.400 17.716 -5.400 -17.716 5.251 0.057 69.000 1.086   | 3 3 3                                     | 1 111.369  | 9 1.026 1.026 0.000 0.000<br>9 1.035 1.035 0.000 0.000   |   | 3.845 1.293 3.943 0.412 0.519 1.849 0.280<br>4.074 1.352 4.216 0.410 0.511 1.992 0.297   | 2.850 3.178 0.000 0.000 0.000 0.000 0.000 0.000 0.263 0.256 0.873 0.480 4.802 3.845  |
| 162 5.400 17.716 -5.400 -17.716 5.251 0.057 69.000 1.086 1   | 3 3 3                                     | 3 1 111.369<br>3 1 111.369   |  |   | 4.074 1.352 4.216 0.410 0.511 1.992 0.297<br>3.943 1.312 4.117 0.437 0.548 1.784 0.279   | 2.993 3.163 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.281 0.269 0.916 0.505 5.052 4.074 2.785 3.170 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.275 0.282 0.891 0.494 4.944 3.943  |
| 164 5.500 18.044 -5.500 -18.044 5.141 0.056 75.450 1.089   | 3 3 3                                     | 1 111.369  | 9 1.054 1.054 0.000 0.000  | 0.996 2.463 2.452 0.000 0.000   | 3.882 1.370 4.088 0.458 0.576 1.645 0.267  | 2.645 3.184 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.273 0.295 0.880 0.490 4.903 3.882  |
| 165 5.550 18.208 -5.550 -18.208 5.203 0.051 78.910 0.980 1   | 3 3 3                                     |  |  |   |  | 2.579 3.163 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.276 0.308 0.883 0.494 4.941 3.898  |
| 166 5.600 18.372 -5.600 -18.372 5.341 0.053 81.890 0.992 1<br>167 5.650 18.537 -5.650 -18.537 5.243 0.053 83.820 1.011   | 3 3 3                                     |  | 9 1.072 1.072 0.000 0.000<br>9 1.081 1.081 0.000 0.000   |   | 3.985 1.241 4.270 0.479 0.599 1.599 0.267<br>3.853 1.273 4.163 0.499 0.629 1.430 0.252   | 2.600 3.156 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.285 0.320 0.899 0.505 5.051 3.985<br>2.431 3.174 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.278 0.327 0.874 0.494 4.937 3.853   |
| 168 5.700 18.701 -5.700 -18.701 5.209 0.058 86.380 1.113   | 3 3 3                                     |  | 9 1.090 1.090 0.000 0.000  | 0.979 2.495 2.442 0.000 0.000   | 3.781 1.408 4.120 0.518 0.655 1.305 0.241  | 2.306 3.200 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.275 0.337 0.861 0.488 4.884 3.781  |
| 169 5.750 18.865 +5.750 +18.865 5.240 0.055 89.720 1.050   | 3 3 3                                     | 1 111.369  | 9 1.099 1.099 0.000 0.000  | 0.975 2.510 2.446 0.000 0.000   | 3.769 1.328 4.141 0.535 0.676 1.219 0.234  | 2.220 3.190 0.000 0.000 0.000 0.000 0.000 0.000 0.276 0.350 0.859 0.489 4.893 3.769  |
| 170 5.800 19.029 -5.800 -19.029 5.853 0.067 90.250 1.145 171 5.850 19.193 -5.850 -19.193 6.095 0.068 92.050 1.116  | 3 3 3                                     | 1 111.369  | 9 1.108 1.107 0.001 0.025<br>9 1.118 1.111 0.006 0.193   |   | 4.287 1.412 4.745 0.481 0.594 1.742 0.291  | 2.743 3.151 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.316 0.352 0.957 0.545 5.445 4.287  |
| 171 5.850 19.193 -5.850 -19.193 6.095 0.066 92.050 1.116<br>172 5.900 19.357 -5.900 -19.357 5.790 0.075 99.320 1.295 1   | 3 3 3                                     | 3 1 111.369  | 9 1.127 1.115 0.011 0.357  |   | 4.480 1.366 4.978 0.471 0.576 1.900 0.900  |  |
| 173 5.950 19.521 -5.950 -19.521 5.950 0.061 102.510 1.025  |   |  |  | 0.968 2.773 2.683 0.000 0.000   | 4.480 1.366 4.978 0.471 0.576 1.899 0.309<br>4.183 1.608 4.664 0.534 0.663 1.411 0.258   | 2.900 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.331 0.359 0.956 0.566 5.659 4.480 2.412 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.331 0.386 0.937 0.537 5.567 4.183  |
|  | 3 3 3                                     | 1 111.369  | 9 1.136 1.120 0.016 0.52   | 0.966 2.850 2.753 0.000 0.000   | 4.183 1.608 4.664 0.534 0.663 1.411 0.258<br>4.302 1.267 4.815 0.535 0.661 1.457 0.263   | 2,900 3,128 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,300 0,332 0,339 0,996 0,566 5,659 4,480 2,412 3,186 0,000 0,000 0,000 0,000 0,000 0,000 0,311 0,386 0,537 0,537 5,357 4,183 2,428 3,319 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,311 0,386 0,599 0,551 5,567 4,183 0,000  |
| 174 6.000 19.685 -6.000 -19.685 6.045 0.054 103.310 0.893  | 3 3 3                                     | 3 1 111.369<br>3 1 111.369   | 9 1.136 1.120 0.016 0.52<br>9 1.145 1.124 0.021 0.68   | 0.966 2.850 2.753 0.000 0.000<br>0.964 2.896 2.792 0.000 0.000  | 4.183 1.608 4.664 0.534 0.663 1.411 0.258<br>4.302 1.267 4.815 0.535 0.661 1.457 0.263<br>4.364 1.102 4.900 0.530 0.654 1.510 0.270  | 2 2500 1 3128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.331 0.359 0.556 0.556 0.556 1.486 0.000 0.00 |
| 174 6.000 19.685 -6.000 -19.685 6.045 0.054 103.310 0.893 175 6.050 19.849 -6.050 -19.849 5.863 0.055 103.080 0.955 1768 6.100 20.013 -6.100 -2.0013 5.984 0.054 104.750 1.068   | 3 3 3<br>3 3 3<br>3 3 3                   | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.136 1.120 0.016 0.52'<br>9 1.145 1.124 0.021 0.68'<br>9 1.154 1.128 0.027 0.85'<br>9 1.163 1.132 0.032 1.014   | 0.986 2.850 2.753 0.000 0.000<br>0.964 2.896 2.792 0.000 0.000<br>0.962 2.809 2.703 0.000 0.000   | 4.183 1.608 4.664 0.534 0.663 1.411 0.258<br>4.302 1.267 4.815 0.535 0.661 1.457 0.263   | 2,900 3,128 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,300 0,332 0,339 0,996 0,566 5,659 4,480 2,412 3,186 0,000 0,000 0,000 0,000 0,000 0,000 0,311 0,386 0,537 0,537 5,357 4,183 2,428 3,319 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,311 0,386 0,599 0,551 5,567 4,183 0,000  |
| 176 6.000 19.685 -6.000 -19.685 6.045 0.054 103.310 0.883 1775 6.050 19.849 -6.050 -19.849 5.883 0.056 103.080 0.955 1776 6.100 20.013 -6.100 -20.013 5.984 0.054 104.750 1.068 1777 6.100 20.177 -6.150 -20.177 6.075 0.053 103.260 1.037   | 3 3 3<br>3 3 3<br>3 3 3<br>3 3 3          | 1 111369<br>3 1 111369<br>3 1 111369<br>3 1 111369<br>3 1 111369   | 9 1.172 1.136 0.037 1.178  | 0.986         2.850         2.753         0.000         0.000           0.984         2.896         2.792         0.000         0.000           0.982         2.899         2.703         0.000         0.000           0.961         2.871         2.758         0.000         0.000           0.999         2.910         2.790         0.000         0.000   | 4183 1688 4684 0534 0.683 1.411 0.285 4.302 1.626 3.141 0.285 4.302 1.627 4.815 0.355 0.681 1.457 0.285 4.302 1.407 4.815 0.355 0.684 1.510 0.276 4.302 0.350 0.684 1.510 0.276 4.377 1.325 4.831 0.340 0.676 1.347 0.283 4.271 1.325 4.831 0.340 0.676 1.407 0.281 4.271 1.328 4.301 0.325 0.850 1.511 0.275  | 2800 3.132 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  |
| 178 6.000 19.885 4.000 19.885 6.045 0.094 103.310 0.882 1776 0.000 19.885 4.000 19.885 0.095 10.000 19.885 10.000 19.885 10.000 19.0000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.0000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.000 19.00 | 3 3 3<br>3 3 3<br>3 3 3<br>3 3 3          | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.136 0.037 1.178<br>9 1.181 1.140 0.042 1.342   | 0.966 2.850 2.753 0.000 0.000<br>0.964 2.896 2.792 0.000 0.000<br>0.962 2.899 2.703 0.000 0.000<br>0.961 2.871 2.758 0.000 0.000<br>0.961 2.871 2.758 0.000 0.000<br>0.961 2.872 2.758 0.000 0.000  | 4.183 1.668 4.684 0.534 0.683 1.411 0.285 1.430 1.285 1.430 1.287 4.815 0.534 0.683 1.411 0.285 1.430 1.430 1.430 0.530 0.684 1.510 0.273 1.479 1.189 4.70 0.530 0.684 1.510 0.273 1.479 1.189 4.831 0.530 0.684 0.670 1.347 0.233 1.427 1.285 4.831 0.530 0.680 1.510 0.273 1.427 0.285 1.427 0.285 1.427 0.285 1.427 0.285 1.427 0.285 1.427 0.285 1.428 1 | 2800 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.332 0.399 0.986 0.966 5.696 4.480 2.412 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.397 0.537 0.480 2.421 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.397 0.537 0.536 4.322 2.428 3.130 0.0000 0.000  |
| 176 6.000 19.685 -6.000 -19.685 6.045 0.054 103.310 0.883 1775 6.050 19.849 -6.050 -19.849 5.883 0.056 103.080 0.955 1776 6.100 20.013 -6.100 -20.013 5.984 0.054 104.750 1.068 1777 6.100 20.177 -6.150 -20.177 6.075 0.053 103.260 1.037   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369  | 9 1.172 1.136 0.037 1.178<br>9 1.181 1.140 0.042 1.342   | 0.986 2.880 2.783 0.000 0.000 0.000 0.986 2.896 2.782 0.000 | 4183 1688 4684 0534 0.683 1.411 0.285 4.302 1.626 3.141 0.285 4.302 1.627 4.815 0.355 0.681 1.457 0.285 4.302 1.407 4.815 0.355 0.684 1.510 0.276 4.302 0.350 0.684 1.510 0.276 4.377 1.325 4.831 0.340 0.676 1.347 0.283 4.271 1.325 4.831 0.340 0.676 1.407 0.281 4.271 1.328 4.301 0.325 0.850 1.511 0.275  | 2800 3.132 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  |
| 173 6.000 19.685 6.000 19.685 6.045 6.054 0.054 0.0310 0.883 177 6.050 19.849 0.050 19.849 19.000 19.869 19 | 3 3 3<br>3 3 3<br>3 3 3<br>3 3 3<br>3 3 3 | 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369  | 9 1.172 1.136 0.037 1.172<br>9 1.181 1.140 0.042 1.342<br>9 1.191 1.144 0.047 1.508  | USSS   ZSSU   Z/SS   USSU   USS     | 4.183 1.698 4.694 0.534 0.663 1.411 0.255 1.432 0.256 1.432 0.256 1.432 0.256 1.432 0.255 0.350 1.432 0.255 0.350 1.432 0.255 0.350 1.432 0.255 0.350 1.432 0.255 0.350 1.432 0.255 0.350 0.354 0.356 1.510 0.276 0.276 1.479 1.325 1.683 0.354 0.576 1.334 0.255 0.350  | 2800 3.128 0.0000 0.000  |
| 174 6.000 19.885 6.000 19.885 6.045 0.054 0.054 0.0510 0.885 177 6.050 19.894 0.050 19.896 5.805 0.054 0.055 0.0510 0.885 177 6.150 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 0.054 0.054 0.054 0.055 0.056 0.056 0.055 | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.136 0.037 1.178<br>9 1.181 1.140 0.042 1.34<br>9 1.191 1.144 0.042 1.34<br>9 1.200 1.148 0.052 1.57<br>9 1.200 1.152 0.057 1.83<br>9 1.208 1.152 0.057 1.83<br>9 1.218 1.156 0.062 1.062   | USBS         ZESU         Z.T.SI         U.000         U.0000         U.00000         U.0000         U.0000  | 4.183 1.508 4.694 0.534 0.653 1.411 0.256 1.432 1.432 1.232 1.835 1.508 1.411 0.256 1.432  | 2 2500   |
| 173 6.000 18.685 6.000 18.685 6.005 0.005 0.005 0.005 0.0310 0.883 173 6.005 18.497 0.000 18.895 5.005 0.005 | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.136 0.037 1.172<br>9 1.181 1.140 0.042 1.344<br>9 1.181 1.144 0.047 1.506<br>9 1.200 1.148 0.052 1.576<br>9 1.209 1.152 0.057 1.833<br>9 1.218 1.156 0.062 1.956<br>9 1.227 1.160 0.067 2.165  | USBS   ZSBS   ZTSS   USBS   USBS   USBS   ZSBS   USBS     | 4.183 1.668 4.664 0.534 0.663 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.255 1.411 0.411  | 2800 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.986 0.586 5.689 4.489 2412 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.986 5.586 5.689 4.489 2422 3.180 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.989 0.587 5.587 4.382 2488 3.139 0.0000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0. |
| 174 6.000 19.885 6.000 19.885 6.045 0.054 0.054 0.0510 0.885 177 6.050 19.894 0.050 19.896 5.805 0.054 0.055 0.0510 0.885 177 6.150 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 2.0513 6.100 0.054 0.054 0.054 0.055 0.056 0.056 0.055 | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.136 0.037 1.178<br>9 1.181 1.140 0.042 1.34<br>9 1.191 1.144 0.042 1.34<br>9 1.200 1.148 0.052 1.57<br>9 1.200 1.152 0.057 1.83<br>9 1.208 1.152 0.057 1.83<br>9 1.218 1.156 0.062 1.062   | USB   ZESU   Z.T.S.   U.0.00   U.0.00  | 4.183 1.508 4.694 0.534 0.653 1.411 0.256 1.432 1.432 1.232 1.835 1.508 1.411 0.256 1.432  | 2 2500   |
| 177   6.000   19.685   6.000   19.885   6.045   0.094   0.03.10   0.885   0.897   0.997   0.998   0.   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.139 0.037 1.174<br>9 1.191 1.140 0.042 1.374<br>9 1.191 1.144 0.047 1.500<br>9 1.200 1.148 0.052 1.57<br>9 1.200 1.148 0.052 1.57<br>9 1.208 1.152 0.057 1.33<br>9 1.218 1.152 0.062 1.39<br>9 1.227 1.180 0.067 2.18<br>9 1.227 1.180 0.073 2.32<br>9 1.245 1.164 0.073 2.32<br>9 1.245 1.168 0.073 2.32  | USB   ZESU   Z.F.S   USB   U  | 4.183 1.508 4.694 0.534 0.653 1.411 0.255 1.430  | 2900 0 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.996 0.566 5.699 4.889 2.421 3.186 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.397 0.537 5.957 4.889 2.428 3.130 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.311 0.386 0.397 0.537 5.957 4.382 2.488 3.130 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.327 0.641 0.398 0.998 0.9881 5.566 4.302 2.2887 3.130 0.0000 0 |
| 173   6.000   19.885   6.000   19.885   6.085   0.084   0.03.10   0.883   173   6.094   19.849   0.080   19.889   18.881   0.085   10.088   10.08   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.72 1.38 0.037 1.72 1.38 0.037 1.72 1.38 0.037 1.59 1.51 1.52 0.057 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50   | USBS   ZSBS   ZYSS   USBS   USBS   USBS   ZSBS   USBS     | 4.183 1.508 4.694 0.534 0.663 1.411 0.256 1.432 1.026 1.432  | 2800 0.3128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.986 0.986 0.986 1.488 2412 3.188 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.986 0.987 0.587 5.897 4.888 2428 3.189 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.989 0.989 0.898 0.898 0.898 0.898 0.898 0.898 0.989 0. |
| 177   6.000   19.685   6.000   19.885   6.045   0.094   0.03.10   0.885   0.897   0.997   0.998   0.   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>5 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369<br>3 1 111.369   | 9 1.172 1.139 0.037 1.174<br>9 1.191 1.140 0.042 1.374<br>9 1.191 1.144 0.047 1.500<br>9 1.200 1.148 0.052 1.57<br>9 1.200 1.148 0.052 1.57<br>9 1.208 1.152 0.057 1.33<br>9 1.218 1.152 0.062 1.39<br>9 1.227 1.180 0.067 2.18<br>9 1.227 1.180 0.073 2.32<br>9 1.245 1.164 0.073 2.32<br>9 1.245 1.168 0.073 2.32  | USBS   ZSSS   ZTSS   USSS   USSS   USSS   ZTSS   USSS   USSS   ZTSS   USSS   USSS   USSS   USSS   ZTSS   USSS     | 4.183 1.508 4.694 0.534 0.653 1.411 0.255 1.430  | 2900 0 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.996 0.566 5.699 4.889 2.421 3.186 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.397 0.537 5.957 4.889 2.428 3.130 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.311 0.386 0.397 0.537 5.957 4.382 2.488 3.130 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.327 0.641 0.398 0.998 0.9881 5.566 4.302 2.2887 3.130 0.0000 0 |
| 177   6.000   18.685   6.000   18.685   6.045   0.084   0.034   0.831   0.883   0.894   0.894   0.895   0.894   0.084   0.088   0.0884     | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  111.369  | 1  | USBS   ZSBS   ZSSS   USBS   USBS   USBS   ZSSS   USBS     | 4.133 1.508 4.694 0.534 0.653 1.411 0.255 1.432 0.256  | 2 290  |
| 176   6.000   19.685   6.000   19.685   6.045   0.054   0.051   0.830   0.850   0.55   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 9 1.172 1.138 0.037 1.174 1.175 1.17 | USBS   ZESS   ZESS   USBS   USBS   ZESS   USBS   USBS   ZESS   USBS     | 4.183 1.508 1.6954 0.534 0.563 1.411 0.255 1.432 1.432 1.232 1.432 1.532 1.431 0.255 0.881 1.432 1.232 1.433 1.433 | 2 290 2 314 3 30 000 0 000 0 000 0 000 0 000 0 000 0 000 0   |
| 177   6.000   18.685   6.000   18.685   6.045   0.054   0.054   0.05310   0.883   1.055   1.   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 0 11/2 11/38 0037 11/4   0 11/2 11/38 0037 11/4   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 15/5   0 11/31 11/4 0037 13/ | 0.956   2.850   2.753   0.000   0.00  | 4.135 1.508 4.694 0.534 0.653 1.411 0.255 1.432 0.256  | 2 280  |
| 177   6.000   18.685   6.000   18.685   6.045   0.084   0.034   0.831   0.883   0.894   0.895   0.894   0.084   0.088   0.088   0.088   0.088   0.085   0.89   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 1  | USB   ZESU   Z.755   USB   USB   USB   Z.782   USB   USB   USB   Z.782   USB   USB   USB   Z.782   USB   USB   USB   Z.782   USB   USB   Z.782   USB   USB   Z.783   USB   USB   Z.783   USB   USB   Z.783   USB   USB   Z.783   USB   Z.785   USB   Z.785   USB   USB   USB   Z.785   USB   USB   USB   Z.785   USB   USB   USB   Z.785   USB   USB   USB   USB   Z.785   USB    | 4.132 1.508 4.694 0.534 0.653 1.411 0.255  4.306 1.679 4.815 0.355 0.661 3.427 0.261  4.354 1.102 4.890 0.535 0.661 4.570 0.270  4.179 1.198 4.710 0.350 0.654 1.510 0.270  4.179 1.198 4.710 0.350 0.654 0.510 0.270  4.271 1.325 4.831 0.540 0.670 1.407 0.261  4.271 1.325 4.831 0.540 0.670 1.407 0.261  4.319 1.265 4.831 0.530 0.650 1.511 0.273  4.181 1.344 4.763 0.355 0.6671 1.574 0.282  4.181 1.344 4.763 0.355 0.6671 1.574 0.282  4.181 1.284 4.763 0.355 0.6671 1.330 0.261  4.190 1.247 4.730 0.355 0.6671 1.332 0.270  4.105 1.247 4.730 0.355 0.673 1.342 0.255  4.105 1.247 4.730 0.355 0.673 1.342 0.255  4.105 1.247 4.730 0.355 0.673 1.342 0.255  4.105 1.247 4.730 0.355 0.673 1.342 0.255  4.252 1.125 4.837 0.224 0.653 1.435 0.276  4.252 1.125 5.130 0.500 0.653 1.435 0.277  4.426 1.125 5.130 0.500 0.681 1.350 0.277  4.426 1.125 5.130 0.500 0.681 1.350 0.277  4.428 1.125 5.130 0.500 0.687 1.358 0.277  4.438 1.130 5.131 0.500 0.687 1.358 0.277  4.438 1.130 5.131 0.550 0.687 1.358 0.277  4.485 1.130 5.350 0.552 0.687 1.358 0.277  4.485 1.130 5.350 0.552 0.687 1.358 0.277  4.485 1.130 5.350 0.552 0.687 1.358 0.278  4.485 1.090 5.326 0.350 0.052 0.687 1.358 0.278  4.485 1.090 5.326 0.350 0.052 0.687 1.350 0.278  4.485 1.090 5.326 0.350 0.052 0.687 1.350 0.278  4.485 1.090 5.326 0.350 0.052 0.687 1.350 0.278  4.485 1.090 5.326 0.350 0.052 0.687 1.350 0.278  4.485 1.090 5.326 0.350 0.0552 0.687 1.350 0.078 1.000 0.278  4.485 1.090 5.326 0.350 0.0552 0.687 1.350 0.078 1.00 | 2 200 0 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.986 0.586 5.689 4.489 2.412 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.986 0.586 5.689 4.489 2.412 3.186 0.000 0.0000 0.000 0.000 0.000 0.311 0.389 0.389 0.387 0.587 5.597 4.382 2.488 2.488 2.389 0.0000 0.0000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  |
| 177   6.000   19.685   6.000   19.885   6.045   0.094   0.03.10   0.885   0.897   0.097   0.098   0.098   0.085   0.   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 1  | 0.956   2.850   2.753   0.000   0.00  | 4.183 1.508 4.694 0.534 0.653 1.411 0.258 1.432  | 2 900 0 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.386 0.586 5.689 4.480 2.421 3.186 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.387 0.387 0.387 0.389 1.480 2.4281 3.130 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.386 0.387 0.387 0.387 5.897 4.480 2.4281 3.130 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.327 0.401 0.387 0.385 0.585 0.585 0.382 0.387 0. |
| 177  | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 0 1.7.2 1.138 0.037 1.7.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7  | USBS   ZSSS   ZSSS   USSS   USSS   USSS   ZSSS   USSS   USSS   ZSSS   USSS     | 4.183 1.508 1.6954 0.534 0.653 1.411 0.255 1.432 1.432 1.235 1.431 0.255 1.432 | 2 200 0 3.128 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.986 0.986 0.586 0.589 4.88 2.242 3.3186 0.000 0.000 0.000 0.000 0.000 0.000 0.311 0.389 0.989 0.989 0.989 0.88 |
| 176   6.000   19.685   6.000   19.885   6.045   0.054   0.054   0.0510   0.885   1778   6.100   19.889   0.050   19.889   0.085   0.058   0.058   0.0510   0.585   0.585   0.058   0.0510   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.059   0.058   0.058   0.059   0.058   0.058   0.059   0.058   0.059   0.058      | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 1  | USBS   ZSBS   ZSSS   USBS     | 4.183 1.508 4.694 0.534 0.653 1.411 0.258 1.432  | 2 7800 1 3 128   |
| 176   6.000   19.685   6.000   19.885   6.045   0.094   0.0310   0.885   0.895   0.095   0.0310   0.885   0.895   0.095   0.081   0.085   0.885   0.895   0.095   0.081   0.085   0.   | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 1  | 0.956   2.850   2.753   0.000   0.00  | 4.183 1.508 4.694 0.534 0.563 1.411 0.285 1.432  | 2 7800 1 3 128   |
| 177  | 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3     | 3   111.369<br>3   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>5   111.369<br>6   111.369<br>6   111.369<br>7   111.369<br>7   111.369<br>8   111.369<br>8   111.369<br>9   111.369<br>9   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369<br>1   111.369 | 1  | USBS   ZSSS   ZSSS   USBS   USBS   ZSSS   USBS   USBS   ZSSS   USBS     | 4.183 1.508 1.6954 0.534 0.563 1.411 0.255 1.4304 0.256 1.4304 0.256 1.4304 0.256 1.4304 0.256 1.4304 0.256 1.4304 0.255 0.8815  | 2 200 1 3.128  |

| A                        | В              | С                    | D                    |                  | E            | F              | G                  | Н              | 1   | J   | K      | L | М            | N       | 0              | P     | Q              | R                | S              | T                | U                | V                | W                | Х                  | Y              | Z                  | AA               | AB               | AC                 | AD               | AE                 | AF             | AG               | AH                  | Al             | AJ               | AK             | AL               | AM    | AN    | AO             | AP             | AQ               | AR                 |
|--------------------------|----------------|----------------------|----------------------|------------------|--------------|----------------|--------------------|----------------|-----|-----|--------|---|--------------|---------|----------------|-------|----------------|------------------|----------------|------------------|------------------|------------------|------------------|--------------------|----------------|--------------------|------------------|------------------|--------------------|------------------|--------------------|----------------|------------------|---------------------|----------------|------------------|----------------|------------------|-------|-------|----------------|----------------|------------------|--------------------|
| 201 7.350                | 24.11          | 4 -7.35<br>8 -7.40   | 0 -24.1              | 14 7.8<br>78 7.3 | 841<br>701   | 0.075          | 134.690            | 0.957          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.392          | 1.232 | 0.160          | 5.117            | 0.921          | 3.756            | 3.458            | 0.000            | 0.000            | 5.238              | 1.163          | 6.450              | 0.516            | 0.627            | 1.952              | 0.348            | 2.953              | 3.036          | 0.000            | 0.000 0             |                | 0.000            | 0.000          | 0.000            | 0.430 | 0.506 | 1.159          | 0.692          | 6.916<br>6.861   | 5.238              |
| 203 7.450                | 24.44          | 2 -7.45              | i0 -24.4             | 42 7.8           | 880          | 0.072          | 144.110            | 0.914          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.410          | 1.240 | 0.170          | 5.445            | 0.918          | 3.774            | 3.464            | 0.000            | 0.000            | 5.220              | 1.113          | 6.470              | 0.550            | 0.669            | 1.727              | 0.324            | 2.728              | 3.030          | 0.000            | 0.000               | .000           | 0.000            | 0.000          | 0.000            | 0.432 | 0.541 | 1.155          | 0.693          | 6.927            | 5.220              |
| 204 7.500                | 24.60          |                      |                      |                  |              | 0.071          | 140.410            | 0.901          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.419          | 1.244 | 0.175          | 5.610            | 0.916          | 3.773            | 3.457            | 0.000            | 0.000            | 5.194<br>5.290     | 1.099          | 6.458              | 0.534            | 0.652<br>0.638   | 1.808              | 0.335            | 2.810<br>2.919     | 3.030          | 0.000            | 0.000 0             | .000           | 0.000            | 0.000          | 0.000            | 0.431 | 0.526 | 1.149          | 0.691          | 6.914<br>7.035   | 5.194<br>5.290     |
| 205 7.550                |                |                      |                      |                  |              |                | 140.530            | 0.934          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.428          | 1.248 | 0.180          | 5.774            | 0.915          | 3.898            | 3.517            | 0.000            | 0.000            | 5.290              | 1.136          | 6.701              | 0.524            | 0.638            | 1.91/              | 0.349            | 2.919              | 3.028          | 0.000            | 0.000 0             |                |                  | 0.000          | 0.000            | 0.440 | 0.526 | 1.170          | 0.703          | 7.120            | 5.290              |
|                          | 25.09          | 8 -7.65              |                      |                  |              |                | 146.050            | 0.904          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.446          | 1.256 | 0.190          | 6.102            | 0.912          | 3.919            | 3.573            | 0.000            | 0.000            | 5.365              | 1.099          | 6.736              | 0.534            | 0.649            | 1.884              |                  | 2.886              | 3.017          | 0.000            |                     |                |                  |                |                  |       |       | 1.188          | 0.715          |                  | 5.365              |
| 208 7.700                | 25.26          |                      |                      |                  |              |                | 148.260            | 0.912          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.456          | 1.260 | 0.196          | 6.266            | 0.910          | 3.887            | 3.539            | 0.000            | 0.000            | 5.288              | 1.111          | 6.661              | 0.546            | 0.666            | 1.768              | 0.334            | 2.769              | 3.024          | 0.000            |                     |                |                  |                | 0.000            |       | 0.554 | 1.170          | 0.708          |                  | 5.288<br>5.325     |
| 210 7.800                |                |                      |                      |                  |              |                | 150.360            | 0.872          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.474          | 1.268 | 0.206          | 6.594            | 0.907          | 4.009            |                  | 0.000            | 0.000            | 5.440              | 1.059          | 6.895              | 0.536            | 0.651            | 1.898              | 0.352            | 2.900              | 3.004          | 0.000            |                     |                |                  | 0.000          |                  |       |       | 1.205          | 0.713          |                  | 5.440              |
| 211 7.850                |                |                      |                      |                  |              | 0.071          | 151.310            | 0.850          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.483          | 1.272 | 0.211          | 6.759            | 0.906          | 4.002            |                  | 0.000            | 0.000            | 5.405              | 1.033          | 6.872              | 0.540            | 0.657            | 1.855              | 0.348            | 2.856              | 3.003          | 0.000            |                     |                |                  | 0.000          | 0.000            | 0.458 | 0.564 | 1.197          | 0.725          | 7.252            | 5.405              |
| 212 7.900                |                |                      |                      |                  |              | 0.074          | 152.500            | 0.892          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.492          | 1.276 | 0.216          | 6.923<br>7.087   | 0.905          | 3.973<br>4.034   |                  | 0.000            | 0.000            | 5.333<br>5.409     | 1.088          | 6.803              | 0.544            | 0.663            | 1.798              | 0.342            | 2.799              | 3.017          | 0.000            |                     |                |                  | 0.000          | 0.000            | 0.454 | 0.564 | 1.180          | 0.719          | 7.188            | 5.333              |
| 214 8.000                |                |                      |                      |                  |              | 0.070          | 157.380            | 0.815          | 1   | 3   | 3      | 3 | 1            | 111.369 | 1.510          | 1.284 | 0.226          | 7.251            | 0.902          | 4.116            |                  | 0.000            | 0.000            | 5.518              | 0.988          | 7.083              | 0.546            | 0.662            | 1.865              | 0.353            | 2.867              | 2.987          | 0.000            |                     |                |                  | 0.000          | 0.000            | 0.472 | 0.586 | 1.223          | 0.742          | 7.423            | 5.518              |
| 215 8.050<br>216 8.100   |                |                      | i0 -26.4             |                  |              |                | 157.500            | 0.789<br>0.831 | 1 5 | 4   | 3      | 3 | 1 1          | 111.369 | 1.520          | 1.288 | 0.231          | 7.415<br>7.579   | 0.900          | 4.131<br>4.148   |                  | 0.000<br>2.789   | 0.000<br>1.856   | 5.517<br>5.521     | 0.957<br>1.010 | 7.104<br>7.131     | 0.544            | 0.660<br>0.668   | 1.878              | 0.355            | 2.879              | 2.981<br>2.990 | 0.000<br>57.819  |                     |                |                  | 0.000          | 0.000            | 0.474 | 0.586 | 1.223          | 0.744          | 7.438            | 5.517              |
| 217 8.150                | 26.73          | 9 -8.15              | 0 -26.7              | 39 8.7           | 775          | 0.071          | 162.650            | 0.809          | 5   | 4   | 3      | 3 | 1            | 114.551 | 1.538          | 1.297 | 0.242          | 7.743            | 0.897          | 4.203            | 3.772            | 2.809            | 1.866            | 5.585              | 0.981          | 7.238              | 0.551            | 0.668            | 1.852              | 0.354            | 2.854              | 2.980          | 57.175           | 0.000               | .000           | 0.000            | 0.000          | 0.000            | 0.483 | 0.605 | 1.239          | 0.754          | 7.545            | 5.585              |
| 218 8.200<br>219 8.250   |                |                      |                      |                  |              |                | 165.340<br>164.820 | 0.793<br>0.738 | 5   | 4   | 3      | 3 | 1            | 114.551 | 1.548          | 1.301 | 0.247          | 7.908<br>8.072   | 0.896<br>0.895 | 4.288<br>4.287   | 3.842<br>3.834   | 2.845<br>2.826   | 1.889            | 5.695<br>5.667     | 0.959<br>0.893 | 7.405<br>7.393     | 0.549            | 0.664<br>0.662   | 1.914              | 0.363<br>0.364   | 2.916              | 2.969          | 56.395<br>55.713 |                     |                |                  | 0.000          | 0.000            |       | 0.615 | 1.265          | 0.768<br>0.767 | 7.684<br>7.669   | 5.695<br>5.667     |
| 219 8.200                | 27.23          | 1 -8.30              | 0 -27.2              | 31 8.9           | 987          | 0.065          | 164.570            | 0.738          | 5   | 4   | 3      | 3 | 1            | 114.551 | 1.566          | 1.305 | 0.252          | 8.236            | 0.893          | 4.207            | 3.844            | 2.832            | 1.865            | 5.670              | 0.893          | 7.422              | 0.547            | 0.658            | 1.940              | 0.369            | 2.916<br>2.942     | 2.958<br>2.955 | 55.482           |                     | .000           | 0.000            | 0.000          | 0.000            |       | 0.612 | 1.259          | 0.769          | 7.689            | 5.670              |
| 221 8.350                | 27.39          | 5 -8.35              |                      |                  |              |                | 159.960            | 0.835          | 5   | 3   | 3      | 3 | 1            | 114.551 | 1.576          | 1.314 | 0.262          | 8.400<br>8.564   | 0.892          | 4.186            | 3.732            | 2.825            | 1.841            | 5.455<br>5.300     | 1.019          | 7.163<br>6.982     | 0.542            | 0.661            | 1.851              |                  | 2.852              | 2.996          | 58.247<br>65.141 |                     |                |                  | 0.000          |                  |       | 0.592 | 1.208          | 0.746          |                  | 5.455              |
|                          |                |                      | 0 -27.5              |                  |              |                | 164.910            |                | 6   | 4   | 4      | 3 | 4            | 114.551 | 1.585          | 1.318 | 0.267          | 8.564            | 0.890          | 4.104<br>5.127   | 4.556            | 3.935            | 2.738            |                    | 1.618          | 11.786             | 0.533            | 0.654            | 1.832<br>5.227     |                  | 6.228              | 2.837          |                  |                     |                |                  |                |                  |       |       | 0.000          | 1.139          |                  | 5.300<br>8.917     |
|                          | 27.88          |                      |                      |                  |              |                | 51.610             |                | 8   | 6   | 8      | 6 | 6            | 120.915 | 1.604          | 1.327 | 0.277          | 8.892            | 0.887          | 15.860           | 14.071           | 12.448           | 11.044           | 48.724             |                | 64.619             | 0.020            | 0.021            | 47.718             |                  | 48.718             |                |                  |                     |                |                  |                |                  |       |       | 0.000          |                |                  | 56.283             |
| 225 8.550                |                |                      | i0 -28.0             |                  |              |                | 18.730<br>16.380   | 0.313          | 9   | 6   | 9      | 6 | 6            | 124.097 | 1.614          | 1.332 | 0.283          | 9.057            | 0.886<br>0.884 | 17.644<br>21.561 | 15.624<br>19.057 | 16.664<br>19.955 | 14.756           | 67.967<br>83.003   | 0.318          | 90.473<br>110.908  | 0.003            | 0.003            | 67.739<br>82.835   |                  | 68.740<br>83.835   | 1.735          | 5.000            |                     |                |                  | 2.474          |                  |       | 0.000 | 0.000          | 7.812<br>9.528 |                  | 78.121<br>95.285   |
| 227 8.650                | 28.37          | 9 -8.65              | 0 -28.3              | 79 140           | .345         | 0.583          | 15.150             | 0.415          | 9   | 6   | 9      | 6 | 6            | 124.097 | 1.635          | 1.342 | 0.293          | 9.385            | 0.882          | 26.890           | 23.722           | 24.507           | 21.620           | 103.418            | 0.420          | 138.711            | 0.001            | 0.001            | 103.284            | 13.400           | 104.284            | 1.631          | 4.880            | 72.167 4            | 0.415 -        | -0.116           | 2.135          | 299.814          | 0.000 | 0.000 | 0.000          | 11.861         | 118.610          | 118.610            |
| 228 8.700                | 28.54<br>28.70 |                      |                      |                  |              | 0.953<br>1.241 | 10.300             | 0.611<br>0.729 | 9   | 6   | 9      | 6 | 6            | 124.097 | 1.645          | 1.347 | 0.298          | 9.549<br>9.713   | 0.881          | 29.867<br>32.634 | 26.299<br>28.681 | 27.748           | 24.433<br>26.805 | 114.564<br>124.813 | 0.618<br>0.736 | 154.240<br>168.670 | 0.000            | 0.000            | 114.547<br>124.800 | 14.903<br>16.286 | 115.547<br>125.800 | 1.687          | 5.883<br>6.206   |                     |                |                  | 2.068          | 322.557          | 0.000 | 0.000 | 0.000          | 13.150         | 131.496          | 131.496<br>143.407 |
| 230 8.800                | 28.87          | 1 -8.80              | 0 -28.8              | 71 155           | 770          | 1.417          | 9.610              | 0.910          | 9   | 6   | 9      | 6 | 6            | 124.097 | 1.665          | 1.357 | 0.308          | 9.877            | 0.877          | 29.846           | 26.182           | 28.818           | 25.280           | 113.611            | 0.920          | 154.105            | -0.000           | -0.000           | 113.617            | 14.894           | 114.617            | 1.798          | 8.071            | 74.995 4            | 0.887 -        | -0.192           | 2.073          | 323.023          | 0.000 | 0.000 | 0.000          | 13.091         | 130.908          | 130.908            |
| 231 8.850                |                |                      |                      |                  | 657          | 1.296          | 9.070              | 1.092          | 8   | 6   | 9      | 6 | 5            | 120.915 | 1.675          | 1.362 | 0.313          | 10.041           | 0.876          | 28.418           |                  | 23.132           | 20.255           | 85.930             | 1.108          | 116.982            | -0.000           | -0.000           | 85.952             | 11.340           | 86.952             | 1.941          | 11.394           |                     |                |                  | 2.262          | 268.543          | 0.000 |       | 0.000          | 9.954          | 99.538           | 99.538             |
| 232 8.900                | 29.19<br>29.36 | 9 -8.90<br>3 -8.95   | 0 -29.1              |                  | 863<br>661   | 1.270<br>1.224 | 8.440<br>9.730     | 1.743<br>3.250 | 7 5 | 5 4 | 8 8    | 5 | 4            | 117.733 | 1.685          | 1.367 | 0.318          | 10.205           | 0.874<br>0.873 | 23.267<br>18.039 |                  | 15.984<br>10.262 | 13.973<br>7.465  | 52.106<br>26.245   | 1.784          | 71.178<br>35.967   | -0.001<br>-0.001 | -0.001<br>-0.001 | 52.146<br>26.259   | 6.955<br>3.579   | 53.146<br>27.259   | 2.237<br>2.697 | 20.248           |                     |                |                  | 2.783<br>0.000 | 202.855<br>0.000 |       | 0.000 | 0.000          | 6.102<br>3.149 | 61.018<br>31.488 | 61.018<br>26.245   |
| 234 9.000                | 29.52          | 7 +9.00              | 0 -29.5              | 27 21.           | 679          | 1.089          | 9.450              | 5.023          | 3   | 3   | 7      | 5 | 3            | 111.369 | 1.704          | 1.375 | 0.329          | 10.534           | 0.871          | 20.768           | 18.098           | 7.138            | 4.995            | 14.532             | 5.452          | 19.976             | -0.002           | -0.002           | 14.557             | 2.049            | 15.557             | 3.025          | 60.215           | 0.000               | .000           | 0.000            | 0.000          | 0.000            | 1.332 | 0.000 | 4.342          | 1.810          | 18.098           | 14.532             |
| 235 9.050                | 29.69<br>29.85 | 1 -9.05              | i0 -29.6             | 91 14.           | .030<br>.629 | 0.786<br>0.416 | 11.240             | 5.602<br>3.577 | 3   | 3   | 6      | 4 | 2            | 111.369 | 1.713          | 1.379 | 0.334          | 10.698           | 0.870<br>0.869 | 13.441<br>7.427  | 11.696<br>6.453  | 5.317            | 3.534<br>2.768   | 8.935<br>7.165     | 6.381<br>4.199 | 12.318<br>9.907    | 0.001            | 0.001            | 8.923<br>6.980     | 1.310            | 9.923<br>7.980     | 3.232<br>3.199 | 75.507<br>72.926 |                     |                |                  |                | 0.000            | 0.822 | 0.002 | 2.178<br>1.645 | 1.170<br>0.968 |                  | 8.935<br>7.165     |
|                          | 30.01          | 9 -9.15              |                      |                  |              | 0.146          | 40.890             | 1.249          | 6   | 3   | 5      | 4 | 4            | 114.551 | 1.732          | 1.388 | 0.339          | 11.026           | 0.868          | 4.478            | 3.885            | 3.692            | 2.367            | 7.103              | 1.467          | 9.954              | 0.022            | 0.026<br>0.094   | 6.504              | 0.997            | 7.505              | 2.959          | 55.760           |                     |                | 0.049            | 0.000          |                  |       |       | 0.000          | 0.908          | 9.711            | 7.177              |
| 238 9.200                | 30.18          |                      |                      |                  |              | 0.105          | 74.500<br>98.930   | 0.892          | 6   | 4   | 4      | 3 | 4            | 114.551 | 1.741          | 1.392 | 0.349          | 11.190           | 0.866          | 4.512<br>4.582   | 3.908            | 3.572            | 2.284            | 7.213              | 1.046          | 10.035             | 0.168            | 0.197            | 5.791              | 0.905            | 6.792              | 2.891          | 51.448           |                     |                |                  | 0.000          |                  |       | 0.000 | 0.000          | 0.977          | 9.771            | 7.213              |
|                          | 30.34          |                      |                      |                  |              |                | 112.500            | 0.794          | 6   | 4   | 4      | 3 | 4            | 114.551 | 1.760          | 1.400 | 0.354          | 11.354           | 0.865          | 4.582            | 3.963            | 3.578            | 2.280            | 7.315<br>7.267     | 0.931          | 10.208             | 0.229            | 0.268            | 5.015              |                  | 6.016              | 2.864          | 49.792<br>50.214 |                     |                |                  | 0.000          |                  |       | 0.000 | 0.000          | 0.991          |                  | 7.267              |
|                          | 30.67          |                      |                      |                  |              |                | 123.190            | 0.897          | 6   | 4   | 4      | 3 | 4            | 114.551 | 1.769          | 1.405 | 0.365          | 11.683           | 0.862          | 4.357            |                  | 3.498            | 2.196            | 6.837              | 1.062          | 9.601              | 0.306            |                  | 4.357              |                  | 5.358              |                |                  |                     |                |                  |                |                  |       |       | 0.000          | 0.939          |                  | 6.837              |
|                          | 30.84<br>31.00 |                      | 0 -30.8<br>0 -31.0   |                  |              |                | 138.770            | 1.028<br>0.983 | 6   | 4   | 3      | 3 | 3            | 114.551 | 1.779          | 1.409 | 0.370          | 11.847           | 0.861          | 4.214            | 3.628<br>3.685   | 3.474<br>3.502   | 2.159            | 6.545<br>6.654     | 1.226          | 9.218              | 0.360            | 0.430<br>0.464   | 3.731              |                  | 4.732<br>4.566     | 2.959<br>2.944 |                  |                     |                |                  |                |                  |       | 0.000 | 0.000          | 0.907          |                  | 6.545<br>6.654     |
| 244 9.500                | 31.16          | 8 -9.50              | 0 -31.1              | 58 11.           | 471          | 0.102          | 163.560            | 0.889          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.797          | 1.418 | 0.380          | 12.175           | 0.858          | 4.396            | 3.773            | 3.528            | 2.192            | 6.828              | 1.054          | 9.674              | 0.412            | 0.489            | 3.491              | 0.610            | 4.493              | 2.914          | 52.883           | 0.000 2             | B.321          | 0.127            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.943          | 9.432            | 6.828              |
| 245 9.550<br>246 9.600   |                | 2 +9.55<br>6 +9.60   | i0 -31.3             |                  | 890          |                | 161.790<br>152.040 | 1.009<br>1.065 | 6   | 4   | 3      | 3 | 3            | 114.551 | 1.807          | 1.422 | 0.385          | 12.339<br>12.503 | 0.857<br>0.856 | 4.556<br>4.679   | 3.905<br>4.004   | 3.674<br>3.770   | 2.288<br>2.350   | 7.095<br>7.291     | 1.190<br>1.251 | 10.084<br>10.394   | 0.393<br>0.357   | 0.463<br>0.419   | 3.811<br>4.234     | 0.655<br>0.715   | 4.813<br>5.236     | 2.922<br>2.921 | 53.378<br>53.320 | 0.000 2<br>0.000 2  | B.485<br>B.604 | 0.113<br>0.100   | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.976<br>1.001 | 9.762<br>10.009  | 7.095<br>7.291     |
| 247 9.650                | 31.66          | 0 -9.65              | 0 -31.6              |                  | 528          | 0.129          | 174.340            | 1.000          | 6   | 4   | 3      | 3 | 3            | 114.551 | 1.826          | 1.420 | 0.395          | 12.503           | 0.854          | 4.801            | 4.102            | 3.829            | 2.388            | 7.486              | 1.205          | 10.703             | 0.403            | 0.472            | 3.955              | 0.679            | 4.957              | 2.921          | 52.219           | 0.000 2             | 8.720          | 0.108            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.026          | 10.255           | 7.486              |
| 248 9.700                | 31.82          | 4 -9.70              | -31.8                | 24 12.           | 921          | 0.114          | 192.330            | 0.882          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.835          | 1.435 | 0.400          | 12.832           | 0.853          | 4.951            | 4.224            | 3.851            | 2.405            | 7.731              | 1.028          | 11.086             | 0.434            | 0.506            | 3.822              | 0.663            | 4.824              | 2.861          |                  | 0.000 2             | 8.861          | 0.120            | 0.000          | 0.000            | 0.000 |       | 0.000          | 1.056          | 10.561           | 7.731              |
| 249 9.750<br>250 9.800   | 31.98<br>32.15 | 8 +9.75<br>2 +9.80   |                      |                  | .172<br>.830 | 0.103<br>0.090 | 206.940            | 0.782<br>0.651 | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.844          | 1.439 | 0.406          | 12.996<br>13.160 | 0.852<br>0.851 | 5.047<br>5.300   | 4.300<br>4.508   | 3.860<br>3.931   | 2.409<br>2.464   | 7.876<br>8.302     | 0.909<br>0.751 | 11.328<br>11.977   | 0.460            | 0.535<br>0.542   | 3.665<br>3.803     | 0.643<br>0.664   | 4.667<br>4.805     | 2.831<br>2.776 | 47.790<br>44.637 | 0.000 2<br>0.000 2  |                | 0.131            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.075          | 10.750           | 7.876<br>8.302     |
| 251 9.850                | 32.31          | 6 -9.85              | 0 -32.3              | 16 13.           | .731         | 0.094          | 232.500            | 0.685          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.863          | 1.447 | 0.416          | 13.324           | 0.849          | 5.262            | 4.469            | 3.933            | 2.453            | 8.203              | 0.792          | 11.869             | 0.498            | 0.577            | 3.473              | 0.620            | 4.475              | 2.790          | 45.426           | 0.000 2             | 9.130          | 0.144            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.117          | 11.173           | 8.203              |
| 252 9.900                | 32.48<br>32.64 | 0 -9.90<br>4 -9.95   |                      |                  |              |                | 235.660            | 0.599          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.873          | 1.452 | 0.421          | 13.488<br>13.652 | 0.848<br>0.847 | 5.246<br>5.276   | 4.450<br>4.468   | 3.880<br>3.927   | 2.409<br>2.431   | 8.145<br>8.167     | 0.694          | 11.819<br>11.886   | 0.507            | 0.587<br>0.569   | 3.364<br>3.519     | 0.607<br>0.630   | 4.366<br>4.521     | 2.770<br>2.782 | 44.308<br>44.975 |                     |                |                  | 0.000          | 0.000            |       | 0.000 | 0.000          | 1.112          | 11.124           | 8.145<br>8.167     |
| 254 10.000               | 32.80          | 8 -10.00             | 00 -32.8             | 08 12.           | 828          | 0.099          | 211.150            | 0.772          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.891          | 1.460 | 0.431          | 13.817           | 0.846          | 4.916            | 4.157            | 3.800            | 2.317            | 7.493              | 0.905          | 10.937             | 0.480            | 0.563            | 3.271              | 0.598            | 4.273              | 2.850          | 48.914           | 0.000 2             | 8.784          | 0.142            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.039          | 10.392           | 7.493              |
| 255 10.050<br>256 10.100 | 32.97<br>33.13 |                      |                      |                  |              |                | 213.520<br>212.190 | 0.766<br>0.813 | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.901          | 1.465 | 0.436          | 13.981           | 0.844          | 5.002            | 4.224            | 3.848            | 2.344            | 7.618<br>7.244     | 0.897          | 11.153             | 0.477            | 0.559<br>0.582   | 3.362              | 0.612            | 4.364              | 2.841          | 48.421<br>50.358 |                     |                |                  | 0.000          | 0.000            |       | 0.000 | 0.000          | 1.056          | 10.559           | 7.618              |
|                          | 33.30          |                      |                      |                  |              |                | 213.090            | 1.012          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.920          | 1.469 | 0.441          | 14.145           | 0.842          | 4.507            | 3.794            | 3.691            | 2.190            | 6.683              | 1.209          | 9.841              | 0.493            | 0.631            | 2.468              | 0.567            | 3.470              | 2.948          | 55.069           |                     |                |                  | 0.000          |                  |       | 0.000 | 0.000          | 0.949          |                  | 6.683              |
| 258 10.200               |                |                      |                      |                  |              | 0.146          | 222.340            | 1.242          | 6   | 3   | 3      | 3 | 1            | 114.551 | 1.929          | 1.477 | 0.452          | 14.473           | 0.841          | 4.506<br>6.521   | 3.788            | 3.787            | 2.238            | 6.656              | 1.485          | 9.830              | 0.552            | 0.660            | 2.261              | 0.462            | 3.263              | 2.990          | 57.840           |                     |                |                  | 0.000          | 0.000            |       | 0.000 | 0.000          | 0.947          | 9.470            | 6.656              |
| 259 10.250<br>260 10.300 |                |                      |                      |                  |              |                | 219.160<br>129.610 | 1.228          | 5   | 3   | 4      | 3 | 4            | 114.551 | 1.938          | 1.482 | 0.457          | 14.637           | 0.840          | 6.521            | 5.475<br>5.324   | 4.939<br>4.261   | 3.085<br>2.555   | 10.182<br>7.616    | 1.386          | 15.081             | 0.375            | 0.424            | 5.870<br>5.202     | 0.975            | 6.872              | 2.814          | 46.784<br>57.605 |                     |                |                  | 0.000          | 0.000            |       | 0.000 | 0.000<br>1.773 | 1.369          | 13.687           | 10.182<br>7.616    |
| 261 10.350               | 33.95          | 6 -10.3              | 50 -33.9             | 56 12.           | 032          | 0.184          | 134.810            | 1.529          | 5   | 3   | 4      | 3 | 3            | 114.551 | 1.957          | 1.490 | 0.467          | 14.965           | 0.837          | 5.763            | 4.824            | 3.966            | 2.327            | 6.764              | 1.826          | 10.075             | 0.311            | 0.371            | 4.251              | 0.750            | 5.252              | 3.027          | 60.333           | 0.000               | .000           | 0.000            | 0.000          | 0.000            | 0.672 | 0.468 | 1.536          | 0.965          | 9.649            | 6.764              |
| 262 10.400               |                | 0 -10.4              | 00 -34.1<br>50 -34.2 |                  | .085<br>512  |                | 167.340            | 0.695<br>0.669 | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.967<br>1.976 | 1.494 | 0.472          | 15.130<br>15.294 | 0.836<br>0.835 | 4.631<br>4.411   | 3.871<br>3.682   | 3.631<br>3.500   | 2.124            | 6.774<br>6.366     | 0.830<br>0.807 | 10.119<br>9.537    | 0.393            | 0.470<br>0.580   | 3.592<br>2.671     | 0.657<br>0.527   | 4.593<br>3.672     | 2.875          | 50.423           | 0.000 2<br>0.000 2  | B.443<br>B.205 | 0.138<br>0.167   | 0.000          |                  | 0.000 | 0.000 | 0.000          | 0.968<br>0.921 |                  | 6.774              |
| 264 10.500               | 34.44          | 8 -10.50             | 00 -34.4             | 48 11.           | 576          | 0.069          | 204.400            | 0.596          | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.985          | 1.503 | 0.482          | 15.458           | 0.834          | 4.436            | 3.697            | 3.478            | 2.002            | 6.384              | 0.719          | 9.591              | 0.510            | 0.615            | 2.457              | 0.498            | 3.458              | 2.874          | 50.409           | 0.000 2             | 8.224          | 0.181            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.924          | 9.244            | 6.384              |
| 265 10.550<br>266 10.600 |                |                      |                      |                  | .711         | 0.074<br>0.071 | 205.150            | 0.632<br>0.602 | 6   | 4   | 3      | 3 | 1            | 114.551 | 1.995          | 1.507 | 0.488          | 15.622<br>15.786 | 0.832<br>0.831 | 4.488<br>4.519   |                  | 3.529<br>3.533   | 2.029<br>2.026   | 6.449              | 0.762<br>0.725 | 9.717<br>9.789     | 0.505            | 0.609<br>0.569   | 2.521              | 0.508<br>0.549   | 3.522<br>3.792     | 2.880<br>2.870 |                  | 0.000 2<br>0.000 2  |                | 0.175            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.934          | 9.338<br>9.390   | 6.449<br>6.479     |
| 267 10.650               | 34.94          | 1 -10.6              | 50 -34.9             | 41 11.           | 733          | 0.074          | 191.130            | 0.631          | 6   | 4   | 3      | 3 | 1            | 114.551 | 2.014          | 1.512 | 0.493          | 15.950           | 0.830          | 4.496            | 3.732            | 3.540            | 2.020            | 6.415              | 0.761          | 9.720              | 0.473            | 0.563            | 2.805              | 0.553            | 3.806              | 2.882          | 50.860           | 0.000 2             | 8.268          | 0.165            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.933          | 9.329            | 6.415              |
| 268 10.700               | 35.10          | 5 -10.70             | 00 -35.1             | 05 11.           | 735          | 0.080          | 191.450            | 0.682<br>0.646 | 6   | 4   | 3      | 3 | 1            | 114.551 | 2.023          | 1.520 | 0.503          | 16.114           | 0.829          | 4.497<br>4.686   | 3.727            | 3.571<br>3.660   | 2.030            | 6.392              | 0.824          | 9.713              | 0.467            | 0.564            | 2.789              | 0.552            | 3.790              | 2.896          | 51.768           | 0.000 2             | B.263          | 0.162            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.932          | 9.318            | 6.392              |
| 269 10.750<br>270 10.800 | 35.26<br>35.43 |                      |                      |                  | 230<br>644   | 0.079<br>0.086 | 190.600            | 0.646          | 6   | 4   | 3      | 3 | 1            | 114.551 | 2.032          | 1.524 | 0.508<br>0.513 | 16.279<br>16.443 | 0.828<br>0.827 | 4.686<br>5.228   | 3.879<br>4.321   | 3.660            | 2.091<br>2.295   | 6.693<br>7.593     | 0.775          | 10.198<br>11.603   | 0.445            | 0.534<br>0.466   | 3.120<br>4.053     | 0.602<br>0.740   | 4.122<br>5.054     | 2.868<br>2.810 | 49.998<br>46.549 | 0.000 2<br>0.000 2  |                | 0.155<br>0.133   | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.970<br>1.080 | 9.697<br>10.803  | 6.693<br>7.593     |
| 271 10.850               | 35.59          | 7 -10.8              | 50 -35.5             | 97 14.           | 921          | 0.111          | 165.210            | 0.744          | 6   | 4   | 4      | 3 | 4            | 114.551 | 2.051          | 1.533 | 0.518          | 16.607           | 0.825          | 5.718            | 4.719            | 4.288            | 2.519            | 8.400              | 0.862          | 12.871             | 0.311            | 0.361            | 5.371              | 0.935            | 6.372              | 2.796          | 45.752           | 0.000 2             | 9.390          | 0.098            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.180          | 11.798           | 8.400              |
| 272 10.900               |                | 1 -10.9              |                      |                  | 126          | 0.123<br>0.093 | 169.150<br>115.310 | 0.763<br>0.523 | 6   | 4   | 4      | 3 | 4            | 114.551 | 2.061          | 1.537 | 0.523          | 16.771<br>16.935 | 0.824          | 6.179<br>6.809   | 5.093<br>5.605   | 4.554<br>4.735   | 2.699<br>2.834   | 9.154<br>10.189    | 0.874<br>0.592 | 14.066             | 0.295            | 0.338            | 6.057<br>8.195     | 1.039            | 7.058<br>9.196     | 2.764<br>2.654 | 43.967<br>38.077 |                     |                |                  | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.273          | 12.733           | 9.154<br>10.189    |
| 274 11.000               | 36.08          | 9 -11.0              | 00 -36.0             | 89 12.           | 817          | 0.093          | 140.460            | 0.726          | 6   | 4   | 4      | 3 | 1            | 114.551 | 2.079          | 1.546 | 0.534          | 17.099           | 0.822          | 4.911            | 4.037            | 3.845            | 2.176            | 6.950              | 0.866          | 10.738             | 0.301            | 0.359            | 4.456              | 0.808            | 5.457              | 2.872          | 50.248           | 0.000 2             | B.644          | 0.115            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.009          | 10.092           | 6.950              |
| 275 11.050               | 36.25          |                      |                      |                  |              | 0.097          | 176.100            | 0.772          | 6   | 4   | 3      | 3 |              | 114.551 | 2.089          | 1.550 | 0.539          | 17.263           | 0.821          | 4.817            | 3.953            | 3.820            | 2.146            | 6.765              | 0.925          | 10.481             | 0.395            | 0.473            | 3.563              | 0.678            | 4.565              | 2.894          | 51.629           |                     |                |                  | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.988          | 9.883            | 6.765              |
| 277 11.150               | 36.58          | 1 -11.15             | 50 -36.5             | 81 13.           | 120          | 0.112          | 198.600            | 0.854          | 6   | 4   | 3      | 3 | <del>+</del> | 114.551 | 2.108          | 1.559 | 0.549          | 17.592           | 0.819          | 5.028            | 4.115            | 3.987            | 2.242            | 7.069              | 1.017          | 11.013             | 0.433            | 0.513            | 3.441              | 0.663            | 4.442              | 2.894          | 51.611           | 0.000 2             | 8.736          | 0.131            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.029          | 10.288           | 7.069              |
| 278 11.200               | 36.74<br>36.90 |                      |                      |                  |              | 0.110<br>0.110 | 192.110<br>193.030 | 0.848<br>0.891 | 6   | 4   | 3      | 3 | 1.           | 114.551 | 2.117          | 1.563 | 0.554          | 17.756<br>17.920 | 0.817<br>0.816 | 4.974<br>4.731   | 4.066<br>3.862   | 3.957<br>3.846   | 2.213            | 6.953<br>6.524     | 1.013          | 10.863             | 0.420            | 0.501<br>0.535   | 3.468              | 0.669            | 4.470<br>4.034     | 2.899<br>2.936 | 51.965<br>54.265 |                     |                |                  | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.016          | 10.164<br>9.654  | 6.953<br>6.524     |
| 280 11.300               | 36.90          |                      |                      |                  |              | 0.110          | 193.030            | 0.891          | 6   | 4   | 3      | 3 | + +          | 114.551 | 2.126          | 1.567 | 0.569          | 17.920           | 0.816          | 4.517            | 3.862            | 3.846            | 2.121            | 6.524              | 1.076          | 9.652              | 0.443            | 0.562            | 2.694              | 0.605            | 3.695              | 2.936          | 54.265           |                     | 8.432<br>8.204 |                  | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.965          | 9.654            | 6.524              |
| 281 11.350               | 37.23          | 7 -11.3              | 50 -37.2             |                  | 917          | 0.091          | 196.510            | 0.764          | - 6 | 4   | 3      | 3 | 1            | 114.551 | 2.145          | 1.576 | 0.569          | 18.248           | 0.814          | 4.567            | 3.717            | 3.698            | 2.010            | 6.204              | 0.931          | 9.772              | 0.467            | 0.570            | 2.670              | 0.554            | 3.672              | 2.929          | 53.857           |                     |                | 0.159            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.929          | 9.294            | 6.204              |
| 282 11.400               | 37.40<br>37.56 |                      |                      |                  |              | 0.087<br>0.119 | 188.840            | 0.705<br>0.956 | 6   | 4   | 3      | 3 | 1            | 114.551 | 2.155<br>2.164 | 1.580 | 0.575<br>0.580 | 18.412<br>18.577 | 0.813          | 4.732<br>4.772   | 3.847            | 3.763<br>3.915   | 2.053<br>2.132   | 6.455<br>6.498     | 0.853<br>1.156 | 10.195             | 0.431            | 0.522<br>0.504   | 3.085<br>3.220     | 0.618<br>0.640   | 4.087<br>4.221     | 2.898<br>2.951 | 51.902<br>55.230 |                     |                |                  | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 0.962<br>0.969 | 9.618<br>9.686   | 6.455<br>6.498     |
| 284 11.500               | 37.72          | 9 -11.5              | 00 -37.7             | 29 16.           | 019          | 0.116          | 196.850            | 0.724          | 6   | 4   | 4      | 3 | +            | 114.551 | 2.173          | 1.589 | 0.585          | 18.741           | 0.811          | 6.138            | 4.977            | 4.553            | 2.587            | 8.720              | 0.838          | 13.846             | 0.347            | 0.402            | 5.217              | 0.946            | 6.219              | 2.776          | 44.611           | 0.000 2             | 9.644          | 0.103            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.244          | 12.442           | 8.720              |
| 285 11.550               | 37.89          | 3 -11.5              | 50 -37.8             |                  | 936          | 0.093          | 130.780            | 0.301          | 1 7 | 5   | 6      | 4 | 5            | 117.733 | 2.183          | 1.593 | 0.590          | 18.905           | 0.810          | 9.879            | 7.999<br>8.668   | 6.721            | 5.442            | 18.058             | 0.323          | 28.754             | 0.113            | 0.122            | 15.864             | 2.573            | 16.865             | 2.214          | 5.000            | 0.000 3             | 2.782          | 0.069            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 2.400          | 23.996           | 23.996             |
| 286 11.650               | 38.22          | 1 -11.6              | 50 -38.2             |                  | 444          | 0.144          | 56.740             | 0.429          | +   | 5   | 6      | 5 | 5            | 117.733 | 2.202          | 1.602 | 0.595          | 19.009           | 0.807          | 8.125            | 6.560            | 5.982            | 4.829            | 14.514             | 0.602          | 23.243             | 0.046            | 0.050            | 13.782             | 2.268            | 14.783             | 2.395          | 26.195           | 0.000 3             | 1.834          | 0.027            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.968          | 19.680           | 19.680             |
| 288 11.700               | 38.38          | 5 -11.7              | -38.3                |                  | 555          | 0.123          | 79.320             | 0.743          | 6   | 4   | 5      | 4 | 4            | 114.551 | 2.212          | 1.606 | 0.605          | 19.397           | 0.806          | 6.344            | 5.115            | 4.691            | 2.642            | 8.933              | 0.857          | 14.344             | 0.113            | 0.130            | 7.767              | 1.349            | 8.768              | 2.770          | 44.309           |                     |                | 0.064            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.279          | 12.787           | 8.933              |
| 289 11.750               | 38.54          | 9 -11.79<br>3 -11.70 | 50 -38.5             | 49 16.<br>13 15  | 520<br>919   | 0.101<br>0.127 | 108.890<br>139.160 | 0.611          | 1 6 | 4   | 4      | 3 | 4            | 114.551 | 2.221          | 1.611 | 0.610<br>0.616 | 19.561<br>19.726 | 0.805<br>0.804 | 6.330            | 5.097<br>4.905   | 4.602<br>4.599   | 2.582            | 8.881<br>8.480     | 0.706          | 14.300             | U.169<br>U.234   | 0.195<br>0.272   | 7.148<br>6.169     | 1.257            | 8.149<br>7.170     | 2.739          | 42.548<br>46.301 |                     | 9.758          | 0.084            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.274          | 12.743           | 8.881<br>8.480     |
| 291 11.850               | 38.87          | 7 -11.8              | 50 -38.8             |                  |              | 0.228          | 163.060            | 1.084          | - 6 | 4   | 5      | 3 | 4            | 114.551 | 2.240          | 1.619 | 0.621          | 19.890           | 0.803          | 8.062            | 6.474            | 5.850            | 3.371            | 11.614             | 1.213          | 18.799             | 0.213            | 0.238            | 8.852              | 1.528            | 9.853              | 2.736          | 42.379           | 0.000 3             | 0.900          | 0.030            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 1.619          | 16.185           | 11.614             |
| 292 11.900               | 39.04          | 2 -11.9              | 00 -39.0             |                  |              | 0.449<br>0.378 | 140.640<br>44 (180 | 1.698<br>0.754 | 6   | 4   | 5<br>8 | 4 | 4            | 114.551 | 2.249          | 1.624 | 0.626          | 20.054           | 0.802<br>0.801 | 10.131           | 8.125<br>9.616   | 7.357            | 4.330<br>8.642   | 14.905<br>29.419   | 1.856<br>0.790 | 24.190             | 0.142            | 0.156<br>0.016   | 12.585<br>28.961   | 2.112            | 13.586             | 2.737          | 42.446           | 0.000 3<br>39.890 3 | 1.985          | -0.034<br>-0.052 | 0.000<br>3.565 | 0.000<br>178.813 | 0.000 | 0.000 | 0.000          | 2.031          | 20:313<br>38:466 | 14.905<br>38.466   |
| 294 12.000               | 39.37          | 0 -12.0              | 00 -39.3             | 70 58.           | 510          | 0.554          | 20.800             | 0.947          | 8   | 5   | 8      | 6 | 5            | 120.915 | 2.269          | 1.633 | 0.636          | 20.382           | 0.800          | 14.013           | 11.206           | 12.567           | 10.050           | 34.457             | 0.985          | 56.242             | 0.000            | 0.000            | 34.449             | 5.543            | 35.449             | 2.186          | 18.534           | 44.276 3            | 5.767          | -0.085           | 3.313          | 193.937          | 0.000 | 0.000 | 0.000          | 4.483          | 44.825           | 44.825             |
| 295 12.050               | 39.53<br>39.69 |                      |                      |                  |              | 0.619<br>0.627 | 15.310<br>18.910   | 1.533<br>2.682 | 7   | 4   | 8      | 5 | 5            | 117.733 | 2.279          | 1.638 | 0.641          | 20.546           | 0.799          | 12.893           | 10.296<br>8.930  | 9.705<br>7.152   | 7.750<br>4.104   | 23.275             | 1.625<br>2.973 | 38.098             | -0.004           | -0.004<br>-0.003 | 23.374             | 3.822            | 24.374             | 2.443          | 28.201           | 33.602 3<br>0.000 0 | 3.988 -        |                  | 3.931          | 158.791          | 0.000 | 0.000 | 0.000<br>3.620 | 3.089<br>1.786 |                  | 30.888<br>12.850   |
| 296 12:100               | 39.86          | 2 -12.1              | 50 -39.8             |                  |              |                | 34.960             | 0.045          | 7   | 0   | 6      | 4 | 0            | 117.733 | 2.288          | 1.646 | 0.651          | 20.710           | 0.797          | 7.162            | 5.704            | 7.152<br>4.923   | 3.921            | 12.850             | 0.050          | 21.091             | 0.002            | 0.022            | 12.884             | 2.183            | 13.884             | 2.905          | 5.000            | 0.000 3             |                |                  | 0.000          | 0.000            |       |       | 0.000          | 1.711          | 17.112           | 17:112             |
| 12.200                   | 40.02          | 6 -12.2              | -40.0                | 26 30.           | 240          | 0.010          | 43.180             | 0.033          | 7   | 0   | -      | 5 | 0            | 117.733 | 2.307          | 1.651 | 0.657          | 21.039           | 0.795          | 9.656            | 7.680            | 6.321            | 5.027            | 16.927             | 0.036          | 27.933             | 0.023            | 0.025            | 16.507             | 2.768            | 17.508             | 2.120          | 5.000            | 0.000 3             | 2.587          | 0.241            | 0.000          | 0.000            | 0.000 | 0.000 | 0.000          | 2.304          | 23.040           | _                  |

| A   | B C D   | E F G H I J  | K L M   | N  | 0  | P  | Q R  | S  | T  | U  | V  | W :  | Х  | Y Z  | AA   | AB   | AC  | AD   | AE  | AF  | AG   | AH   | AI   | AJ   | AK  | AL   | AM   | AN   | AO   | AP  | AQ   | AR   |
|---|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|---|--|--|--|--|---|--|--|--|--|---|--|--|
| 1   | ConeTec CPT Interpretations   | IzW Version 1.19 - Dec 18 2012   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   | -  |  |
| 3   | DAS Version: W47  | 22W Version 1.15 * Dec. 16 20 12   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 4   | Interpretation Format:  | All but Liquefaction Parameters (NLI)  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 5   | Run ID:   | 1367593892<br>13-54031   | <del>                                     </del>  |  |  |  |  |  |  |  |  |  |  |  |  |  | -   |  | 1   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 7   | Client  | Schnabel   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 8   | Project:<br>Facility:   | James River Bank Stabilization   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 10  | Sounding ID:  | CPT-03   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 11  | Cone ID:  | 184:T1500F15U500   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 12  | Operator:<br>CPT Date:  | BK-AS<br>May-02-2013   | 1   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   | _  |  |
| 14  | CPT Time:   | 12:35  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 15  | CPT File:   | 13-54031_CP03.COR  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 17  | Tip Units:  | tsf  | 1   |  |  |  |  | _  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 18  | Sleeve Units:   | tsf  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 20  | PP Units:<br>Tip Conversion to bar:   | ft<br>0.9580   |   | _  | -  |  |  |  |  | -  |  |  |  |  |  | -  |   |  | -   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 21  | Sleeve Conversion to bar:   | 0.9580   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 22  | PP Conversion to meters:  | 0.3050   |   |  |  |  |  |  |  | -  |  |  |  |  |  | -  |   |  |   |   |  |  |  |  |   |  |  |  |  |   | -  |  |
| 24  |   | N/A  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 25  | Col 5 (Extra Module) Units  | N/A  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 26  | Coord Source:   | GPS  | 1   |  |  |  |  | _  |  | -  |  |  |  | -  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   | -+   |  |
| 28  | Coord Type:   | LATLONG  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 30  | UTM Zone:<br>Easting / Long:  | N/A<br>-76 457930  | 1   | -  | 1  | +-+  |  | +  |  |  |  | -+   |  |  | $\vdash$   | -  | <del>                                     </del>  |  | -   |   |  |  |  | -  |   |  |  | $\vdash$   | $\vdash$   |   | -+   |  |
| 31  | Northing / Lat:   | 37.020350  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 32  | Elevation:  | 0.000  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   | -  |  |
| 34  | Tip Net Area Ratio:   | 0.80   | 1   | +  |  | -  |  |  | +  | -  | -+   | -  |  |  |  |  | t -   |  | l -   |   |  |  |  |  |   |  |  |  |  | - +   | -+   |  |
| 35  | Unit Weight of Soil Base:   | Based on Soil Zones<br>19.00 kN/m*3 120.91 pcf   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 36  | Unit Weight of Soil (Def):<br>Unit Weight of Water:   | 9.81 kN/m²3 62.43 pcf  | 1   | -  |  | -  |  | +  |  | -+   |  |  |  |  |  | 1  | <b>.</b>  | -  | -   |   | -  |  |  | -  |   |  |  |  |  | - 1   | -+   |  |
| 38  | Equilibrium U Profile Used:   | No   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 39<br>40  | Soil Unit Weight Profile Used:<br>Water Table   | No 8.53 m 28.00 ft   | 1   | -  | 1  | +-+  |  | +  |  |  |  | -+   |  |  | $\vdash$   | -  | <del>                                     </del>  | -  | -   |   |  |  |  | -  |   |  |  | $\vdash$   | $\vdash$   |   | -+   |  |
| 41  | Averaging Interval:   | 0.00 m 0.00 ft   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 42  | Su Factors Nkt and Ndu:   | 15.0 8.0   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 44  | Cn Exp. and Limits:   | 0.50 0.00 1.70   |   |  |  |  |  | _  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 45  | Qc1 Exp. and Limits:  | 0.50 0.00 1.70<br>1.20   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 46  | State Parameter M:<br>NC Su / p':   | 0.30   |   | -  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 48  | Relative Density Method:  | All Sands - Jamilokowski (1985)  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 49  | Phi Angle Method:<br>Youngs Modulus Sand Type:  | Kulhawy and Mayne (1990)<br>Recent   |   |  |  |  | - 1  |  |  |  |  |  |  |  |  | -  | -   | -  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 30  |   |  |   |  | 1 1  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 51  | N160lc Method:  | Based on qc1n  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |  |  |  |  |   |  |  |  |  |   |  |  |
| 51<br>52<br>53 Depth  |   | Based on qc1n  | SBT Bq SBT Bqn  | Unit Wt.   | TStress  | EStress  | Equil u Equil u  | u Cn   | N(60)  | N1(60) N   | N60 (Ic) N1  | 1160 (Ic) Nor  | rm: Qt No  | rm: Fr Net qt  | Delta U/qt   | Bq   | Q(1-Bq)   | qe   | qeNorm  | lc  | FC   | Dr   | Phi  |  | Es/qt   | Es   | Su (Nkt)   | Su (Ndu)   | OCR  | qc1 (Cn)  | qc1  | qc1n   |
| 51<br>52<br>53 Depth<br>54 m  | N160lc Method:  Depth Elev Elev ft m ft   | Based on qc1n  Avg qt Avg fs Avg u Avg Rf SBT SBTn  tsf tsf ft %   | SBTBq SBTBqn  | pcf  | tsf  | tsf  | tsf ft   |  | bpf  | bpf  | bpf  | bpf  |  | % tsf  |  |  |   | MPa  | qeNorm  | le  | FC<br>%  | Dr<br>%  | deg  |  |   | tsf  | tsf  | tsf  |  | MPa   |  |  |
| 50<br>51<br>52<br>53 Depth<br>54 m<br>55 0.050<br>56 0.100  | N160ic Method:<br>  Depth   Elev   Elev   | Based on qc1n  | 5 7 8   | pcf<br>114.551   | tsf<br>0.009   | tsf<br>0.009   | tsf ft<br>0.000 0.000  | 0 1.700  | bpf<br>3.974   | bpf<br>6.756   | bpf<br>1.850   | bpf<br>3.145 66  | 61.388 1   | % tsf<br>1.674 6.213   | -0.030   | -0.030   | 681.165   | MPa<br>0.614   |   | Ic 2.856 2.366  |  |  | deg<br>0.000   | 0.000  | 0.000   | tsf<br>0.000   | tsf<br>0.414   | tsf<br>0.000   | 10.000   | MPa<br>1.013  | 10.135   | 10.135   |
| 56 0.100<br>57 0.150  | N160ic Method:    Depth   Elev   Elev   | Based on qcfn  | 5 7 8<br>6 7 8<br>7 0 0   | pcf<br>114.551<br>114.551<br>117.733   | 0.009<br>0.019<br>0.028  | tsf<br>0.009<br>0.019<br>0.028   | tsf ft<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0 1.700<br>0 1.700<br>0 1.700  | 3.974<br>6.455<br>9.434  | bpf<br>6.756<br>10.973<br>16.039   | bpf<br>1.850<br>3.908<br>6.135   | bpf<br>3.145 66<br>6.644 89<br>10.429 104  | 61.388 1<br>95.527 0<br>142.440 0  | % tsf<br>1.674 6.213<br>0.981 16.826<br>0.772 29.516   | -0.030<br>-0.010<br>-0.006   | -0.030<br>-0.010<br>-0.006   | 681.165<br>904.851<br>1048.770  | MPa<br>0.614<br>1.631<br>2.847   | 905.847<br>1049.768   | 2.366<br>2.103  | 25.027<br>15.906   | 72.569<br>82.795   | deg<br>0.000<br>33.421<br>36.105   | -0.380   | 0.000<br>0.000<br>3.000   | 0.000<br>0.000<br>88.660   | tsf<br>0.414<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812  | 10.135<br>27.434<br>48.116   | 10.135<br>27.434<br>48.116   |
| 56 0.100  | N160ic Method:<br>  | Based on gcfn  Ang qt Ang fs Ang u Ang Rf S81* S81n  tid f f %  44 6.223 0.104 5.950 1.671 4 8  8 16.845 0.105 5.510 0.980 6 6  2 29.544 0.228 5.7340 0.772 7 0  8 38.726 0.227 5.370 1.163 7 6  | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8  | pcf<br>114.551<br>114.551<br>117.733<br>117.733  | 0.009<br>0.019<br>0.028<br>0.038   | tsf<br>0.009<br>0.019<br>0.028   | tsf ft<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0 1.700<br>0 1.700<br>0 1.700<br>0 1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728   | bpf<br>6.756<br>10.973<br>16.039<br>19.938   | bpf<br>1.850<br>3.908<br>6.135<br>7.697  | bpf<br>3.145 66<br>6.644 89<br>10.429 104<br>13.085 96<br>15.367 96  | 61.388 1<br>95.527 0<br>042.440 0<br>66.257 1  | % tsf<br>1.674 6.213<br>0.981 16.826<br>0.772 29.516<br>1.164 36.689   | -0.030<br>-0.010<br>-0.006<br>-0.005   | -0.030<br>-0.010<br>-0.006<br>-0.005   | 681.165<br>904.851<br>1048.770  | MPa<br>0.614<br>1.631<br>2.847<br>3.534  | 905.847<br>1049.768<br>971.671  | 2.366   | 25.027<br>15.906<br>16.610   | 72.569<br>82.795<br>84.828   | deg<br>0.000<br>33.421<br>36.105<br>37.145   | -0.380<br>-0.421   | 0.000<br>0.000<br>3.000<br>2.683  | tsf<br>0.000<br>0.000<br>88.660<br>98.585  | 0.414<br>0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981   | 10.135<br>27.434<br>48.116<br>59.813   | 10.135<br>27.434<br>48.116<br>59.813   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300  | N160ic Method:<br>  Depth   Elev   Elev   ft   m   ft   1,0164   -0.059   -0.154   -0.059   -0.156   -0.326   -0.150   -0.326   -0.150   -0.452   -0.656   -0.200   -0.656   -0.200   -0.656   -0.200   -0.650   -0.820   -0.250   -0.820   -0.300   -0 | Based on och   Ang rt   SB1   SB1  | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8  | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057  | tsf ft<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156  | bpf 3.145 66 6.644 89 10.429 104 13.085 96 15.367 96 15.566 83   | 61.388 1<br>95.527 0<br>42.440 0<br>66.257 1<br>63.135 0<br>32.583 0   | % tsf<br>1.674 6.213<br>0.981 16.826<br>0.772 29.516<br>1.164 36.689<br>0.848 45.870<br>0.661 47.800   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409   | -0.380<br>-0.421<br>-0.383<br>-0.343   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409   | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665   | tsf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000   | tsf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350  | N160lc Method:    Depth   Elev   Elev   R   m   R   | Aug ct   Aug fs   Aug u   Aug R!   SBT   SBTn  | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067   | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067   | tsf ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | 0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591   | bpf 3.145 66 6.644 89 10.429 104 13.085 96 15.367 96 15.566 83 14.605 61   | 61.388 1<br>95.527 0<br>42.440 0<br>66.257 1<br>63.135 0<br>32.583 0<br>11.146 1   | % tsf<br>1.674 6.213<br>0.981 16.826<br>0.772 29.516<br>1.164 36.689<br>0.848 45.870<br>0.661 47.800<br>1.303 41.067   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785  | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784   | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118  | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536   | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665<br>113.251<br>104.374   | tsf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | tsf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450  | N160le Method:    Depth   Elev   Elev   Elev     R   m   1   0.164   -0.050   -0.164     0.328   -0.100   -0.328     0.462   -0.150   -0.452     0.655   -0.200   -0.655     0.820   -0.256   -0.820     0.884   -0.300   -0.984     1.148   -0.350   -1.312     1.148   -0.400   -1.312     1.147   -0.400   -1.312     1.147   -0.450   -1.476     1.148   -0.450   -1.476     1.147   -0.450   -1.476     1.148   -0.450   -1.476     1.147   -0.450   -1.476     1.148   -0.450     1.148   -0.450     1.  | Aug ct   Aug fs   Aug u   Aug Rf   SBT   SBT   | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.077  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.067  | tsf ft 0.000   | 0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700<br>0 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602  | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591<br>9.257<br>6.103   | bpf 3.145 66 6.644 89 10.429 104 13.085 96 15.367 96 15.566 83 14.605 61 15.737 58 10.375 28   | 61.388 1<br>95.527 0<br>42.440 0<br>66.257 1<br>63.135 0<br>32.583 0<br>11.146 1<br>85.001 1   | % tsf 1.674 6.213 1.674 6.213 1.981 16.826 1.772 29.516 1.164 36.689 1.848 45.870 1.661 47.800 1.303 41.067 1.259 44.959 1.259 24.972  | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.004<br>-0.004   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.004   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943  | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942   | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471  | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>62.090   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.257   | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665<br>113.251<br>104.374<br>109.498<br>81.656  | 1sf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | bsf 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500  | N180le Method:    Depth   Elev   Elev   R   R   R   R   R   R   R   R   R   | Based on och   | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>7 7 7 8   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>114.551  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.057<br>0.067<br>0.077   | 19f<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.067<br>0.086   | tsf ft 0.000   | 0 1.700<br>0 1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.309   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591<br>9.257<br>6.103<br>5.128  | bpf 3.145 66 6.644 89 10.429 10429 10429 15.367 96 15.367 96 15.566 83 14.605 61 15.737 58 8.717 20  | 61.388 1<br>95.527 (6<br>42.440 (66.257 1<br>63.135 (32.583 (611.146 1<br>85.001 1<br>89.099 2   | % lsf<br>1.674 6.213<br>1.981 16.826<br>1.772 29.516<br>1.164 36.889<br>1.848 45.870<br>1.303 41.067<br>1.259 44.959<br>2.559 24.972<br>2.845 19.933   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.004<br>-0.004<br>-0.006   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.004<br>-0.006   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416<br>1.934  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>62.090<br>0.000  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000  | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000  | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.257<br>0.000  | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665<br>113.251<br>104.374<br>109.498<br>81.656<br>0.000   | 1sf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>1.329  | bsf 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600  | Depth   Elev   Elev   R   | Aug at   Aug is   Aug w   Aug RI   SBT   SBTn  | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>7 7 8<br>7 7 8  | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551  | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.115  | 1sf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.077<br>0.086<br>0.096<br>0.105<br>0.115  | Isf ft 0.000 | 0 1.700<br>0 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>8.088   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.309<br>13.340<br>13.749   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591<br>9.257<br>6.103<br>5.128<br>5.043<br>5.097  | bpf 3.145 66 6.644 89 10.429 104 13.085 96 15.367 96 15.566 83 14.605 61 15.737 58 10.375 28 8.717 20 8.665 18   | 61.388 1<br>95.527 (<br>M2.440 (<br>66.257 1<br>63.135 (<br>32.583 (<br>11.146 1<br>85.001 1<br>89.099 2<br>08.126 2<br>93.713 2<br>83.230 1   | % bf 1.674 6.213 3.981 16.826 1.772 29.516 1.164 36.689 3.848 45.870 3.661 47.800 1.303 41.067 1.259 44.959 2.559 24.972 2.845 19.933 2.189 20.372 1.948 20.991  | +0.030<br>+0.010<br>+0.006<br>+0.005<br>+0.004<br>+0.003<br>+0.004<br>+0.006<br>+0.006<br>+0.008<br>+0.008   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.004<br>-0.004<br>-0.006<br>-0.008<br>-0.008   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416<br>1.934<br>1.977<br>2.038  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>62.090<br>0.000<br>53.482<br>53.122  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498  | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000<br>-0.352<br>-0.327  | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530  | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665<br>113.251<br>104.374<br>109.498<br>81.656<br>0.000<br>73.300<br>74.540   | 1sf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | bsf 0.000 0.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.600<br>67 0.650  | N1501c Memod:  Depth Elev Elev R1   | Based on och   Ang och   | 5 7 8<br>6 7 8<br>7 0 0<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>8 7 8<br>7 7 7 8   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551  | tsf 0.009 0.019 0.028 0.038 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.115 0.124  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.077<br>0.086<br>0.096<br>0.105<br>0.115  | tsf R 0.000  | 0 1.700<br>0 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>8.088<br>8.647  | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.309<br>13.340<br>13.749<br>14.700   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591<br>9.257<br>6.103<br>5.128<br>5.043<br>5.097<br>5.358   | bpf 3.145 66 6.644 89 10.429 10.429 10.429 10.429 15.367 96 15.367 96 15.566 83 14.605 61 15.737 58 8.717 20.8.574 19 8.665 18 9.108 18  | 61.388 1<br>95.527 (1<br>42.440 (2<br>66.257 1<br>63.135 (3<br>32.583 (3<br>11.146 1<br>85.001 1<br>89.099 2<br>08.126 2<br>93.713 2<br>83.230 1<br>81.037 1   | % bsf 6.213  | +0.030<br>+0.010<br>+0.006<br>+0.005<br>+0.004<br>+0.004<br>+0.006<br>+0.008<br>+0.008<br>+0.008   | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.004<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463  | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416<br>1.934<br>1.977<br>2.038<br>2.179   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453<br>2.416  | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>62.090<br>0.000<br>53.482<br>53.122<br>53.909  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498<br>34.818  | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000<br>-0.352<br>-0.327<br>-0.317  | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424   | tsf<br>0.000<br>0.000<br>88.660<br>98.585<br>110.665<br>113.251<br>104.374<br>109.498<br>81.656<br>0.000<br>73.300<br>74.540<br>77.296   | tsf<br>0.414<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | bsf 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600  | N1501c Memod:  Depth Elev Elev R1   | Aug ct   Aug fs   Aug N   Aug Rf   SBT   SBT   | 5 7 8 6 7 8 6 7 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551  | tsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.077 0.086 0.096 0.105 0.115 0.124 0.133  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.057<br>0.067<br>0.077<br>0.086<br>0.096<br>0.105<br>0.115  | tsf R 0.000  | 1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>8.088<br>8.647<br>8.588   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.309<br>13.340<br>13.749<br>14.600   | bpf<br>1.850<br>3.908<br>6.135<br>7.697<br>9.039<br>9.156<br>8.591<br>9.257<br>6.103<br>5.128<br>5.043<br>5.043<br>5.358<br>5.408  | bpf 3.145 66 6.644 89 10.429 104 13.085 96 15.367 96 15.566 83 14.605 61 15.737 58 10.375 28 8.717 20 8.665 18   | 61.388 1<br>95.527 (1<br>42.440 (1<br>66.257 1<br>66.257 1<br>63.135 (1<br>32.583 (1<br>11.146 1<br>85.001 1<br>89.099 2<br>08.126 2<br>93.713 2<br>83.230 1<br>81.037 1<br>67.064 2   | % bf 1.674 6.213 3.981 16.826 1.772 29.516 1.164 36.689 3.848 45.870 3.661 47.800 1.303 41.067 1.259 44.959 2.559 24.972 2.845 19.933 2.189 20.372 1.948 20.991  | +0.030<br>+0.010<br>+0.006<br>+0.005<br>+0.003<br>+0.004<br>+0.004<br>+0.004<br>+0.006<br>+0.008<br>+0.008<br>+0.008<br>+0.008   | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.003<br>-0.004<br>-0.004<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416<br>1.934<br>1.977<br>2.038  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.560   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>62.090<br>0.000<br>53.482<br>53.122<br>53.909<br>52.667  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498<br>34.818  | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000<br>-0.352<br>-0.327<br>-0.317<br>-0.328  | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.435  | tsf 0.000 0.000 88.660 98.585 110.665 113.251 104.374 109.498 81.656 0.000 73.300 74.540 77.296 77.014   | tsf 0.414 0.000  | bsf 0.000 0.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675<br>3.650   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749   |
| 56 0.100<br>57 0.150<br>58 0.200<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.650<br>68 0.700<br>69 0.750<br>70 0.800  | N150 c Memori:   Depth   Elev   Elev     n  | Aug ct   Aug fs   Aug w   Aug Rf   SBT   SBT   | 5 7 8 6 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 7 8 8 7 7 7 7 7 8 7 7 7 7 7 8 8 7 7 7 7 8 8 7 7 6 8 8 7 6 8 7 7 6 8 8 8 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 8 9 7 7 6 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9   | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.115 0.124 0.133 0.143 0.152  | tsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.105 0.115 0.124 0.133 0.143 0.152  | tsf ft   | 1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.594<br>7.847<br>8.088<br>8.647<br>8.588<br>9.958<br>9.7889   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.4.448<br>16.324<br>16.309<br>13.340<br>13.749<br>14.700<br>16.929<br>13.412   | bpf 1.850 3.908 6.135 7.697 9.039 9.156 6.8591 9.257 6.103 5.128 5.043 5.408 5.219 5.001   | bpf 3.145 66 66.44 89 10.429 10.429 10.429 10.429 10.429 10.429 10.429 10.5.566 83.14.605 61 15.737 58 8.717 20.8.574 19 8.665 18 8.9.193 16 8.8.72 14.8.572 13.8.572 | 61.388 1<br>91.388 1<br>91.527 (<br>96.257 1<br>63.135 (<br>63.135 | % bef<br>1.674 6.213<br>9.981 16.826<br>0.772 29.516<br>1.164 36.689<br>1.848 45.870<br>1.651 47.800<br>1.400 41.000<br>1.259 44.959<br>2.459 24.972<br>2.459 22.445<br>1.938 20.372<br>1.948 20.991<br>1.849 22.441<br>1.849 22.445<br>1.849 24.455<br>1.849 24.4 | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009   | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055  | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 2.179 2.165 2.011 1.992  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054   | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453<br>2.416<br>2.451<br>2.535<br>2.466   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.563<br>29.172   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>0.000<br>53.482<br>53.122<br>53.909<br>52.667<br>0.000   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498<br>34.818<br>34.785<br>0.000   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000<br>-0.352<br>-0.327<br>-0.317<br>-0.328<br>0.000   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.435<br>0.000  | tsf 0.000 0. | 1sf 0.414 0.000 0. | tsf 0.000 0.   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.345<br>3.675<br>3.650<br>3.386   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.530   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.899<br>33.858   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.256<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.656<br>68 0.700<br>69 0.750<br>70 0.800<br>71 0.850  | Depth   Dept    | Aug at   Aug fs   Aug fs   Aug Rf   S8T   S8Tn   | S 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 8 7 7 8 8 7 7 8 8 8 7 8 8 8 7 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 | pcf<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.115 0.124 0.133 0.143 0.152  | tsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.077 0.086 0.096 0.105 0.115 0.124 0.133 0.143 0.152  | tsf ft   | 1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700<br>1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.594<br>7.847<br>8.088<br>8.647<br>8.588<br>9.958<br>9.7889   | bpf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.4.448<br>16.324<br>16.309<br>13.340<br>13.749<br>14.700<br>16.929<br>13.412   | bpf 1.850 3.908 6.135 7.697 9.039 9.156 6.8591 9.257 6.103 5.128 5.043 5.408 5.219 5.001   | bpf 3.145 66 66.44 89 10.429 10.429 10.429 10.429 10.429 10.429 10.429 10.5.566 83.14.605 61 15.737 58 8.717 20.8.574 19 8.665 18 8.9.193 16 8.8.72 14.8.572 13.8.572 | 61.388 1<br>91.388 1<br>91.527 (<br>96.257 1<br>63.135 (<br>63.135 (<br>63.2583 (<br>11.146 1<br>85.001 1<br>89.099 2<br>81.037 1<br>81.037 1<br>67.064 2<br>44.642 2<br>44.642 2  | % bef<br>1.674 6.213<br>9.981 16.826<br>0.772 29.516<br>1.164 36.689<br>1.848 45.870<br>1.651 47.800<br>1.400 41.000<br>1.259 44.959<br>2.459 24.972<br>2.459 22.445<br>1.938 20.372<br>1.948 20.991<br>1.849 22.441<br>1.849 22.445<br>1.849 24.455<br>1.849 24.4 | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009   | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055  | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 2.179 2.165 2.011 1.992  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054   | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453<br>2.416<br>2.451<br>2.535<br>2.466   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.563<br>29.172   | 72.569<br>82.795<br>84.828<br>87.982<br>86.490<br>79.895<br>80.569<br>0.000<br>53.482<br>53.122<br>53.909<br>52.667<br>0.000   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498<br>34.818<br>34.785<br>0.000   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>0.000<br>-0.352<br>-0.327<br>-0.317<br>-0.328<br>0.000   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.435<br>0.000  | tsf 0.000 0. | 1sf 0.414 0.000 0. | tsf 0.000 0.   | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.345<br>3.675<br>3.650<br>3.386   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.530   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.899<br>33.858   |
| 56 0.100<br>57 0.150<br>58 0.250<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.650<br>68 0.700<br>69 0.750<br>70 0.800<br>71 0.850<br>72 0.900<br>73 0.950  | Depth   Dept    | Aug at   Aug is   Aug   Aug RI   SBT   SBTn  | 5 7 8 6 6 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 7 7 8 8 7 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 8 7 7 8   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>120.915<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.096 0.105 0.115 0.124 0.133 0.143 0.143 0.152 0.162 0.171 0.181  | tsf 0.009 0.019 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.077 0.086 0.096 0.0115 0.124 0.133 0.143 0.152 0.162 0.171 0.181   | 15f  | 0 1.700<br>0 1.700   | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.652<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>8.088<br>8.084<br>8.084<br>9.958<br>9.958<br>8.088<br>8.647<br>8.588<br>9.958<br>9.306<br>8.349   | bpf 6.756 10.973 16.039 19.938 24.927 19.485 22.331 24.448 16.329 13.340 13.340 14.700 14.600 16.929 13.412 15.821 14.193 13.547   | bpf 1.850 3.908 6.135 7.697 9.039 9.156 8.891 9.257 5.128 5.043 5.097 5.358 5.408 5.219 5.001 5.448 5.538  | bpf 3.1.45 66 6.644 89 10.429 10.429 10.429 10.439 10.429 10.429 10.430 96 15.566 83 14.605 61 15.565 83 14.605 61 15.737 58 8.717 20 8.574 19 10.375 28 8.574 19 10.375 28 8.565 18 9.193 16 8.872 14.8502 13 9.262 14 9.414 15 8.703 13 8.703  | 61.388 1 95.527 (6.2440 ) 42.440 (6.257 1 66.257 1 66.257 1 66.257 1 68.135 (6.2583 ) 68.136 (6.2583 ) 68.13   | % bf 1.674 6.213 3.9861 16.826 3.772 29.516 1.164 36.89 3.848 45.870 3.848 45.870 3.848 45.870 3.848 45.870 3.848 45.870 3.848 45.870 3.858 44.959 3.848 45.870 3.858 44.959 3.858 20.372 3.858 20.372 3.858 20.372 3.868 20.381 3.872 20.436 3   | -0.030<br>-0.005<br>-0.005<br>-0.005<br>-0.003<br>-0.004<br>-0.004<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009<br>-0.009<br>-0.009   | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.004<br>-0.004<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.009<br>-0.009<br>-0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.707<br>153.161  | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.958<br>4.331<br>2.416<br>1.937<br>2.038<br>2.179<br>2.165<br>2.011<br>1.992<br>2.348<br>2.524<br>2.348<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.524<br>2.52 | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>136.700<br>151.706<br>154.160  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.453<br>2.416<br>2.451<br>2.535<br>2.466<br>2.289<br>2.152   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>30.460<br>28.639<br>27.088<br>28.509<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000  | 72.569 82.795 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.090 48.345 52.221 53.5192   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.498<br>34.818<br>34.785<br>0.000<br>34.380<br>35.169<br>35.529   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.352<br>-0.327<br>-0.317<br>-0.317<br>-0.249<br>-0.296<br>-0.296<br>-0.295<br>-0.155   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.435<br>0.000<br>3.570<br>3.307<br>3.307   | tsf 0.000 0.000 88.660 98.585 110.665 110.665 113.251 104.374 109.498 81.656 0.000 73.300 74.540 77.296 77.014 80.349 83.440   | 15f 0.414 0.000  | 5sf 0.000 0.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675<br>3.650<br>3.385<br>3.395<br>4.268   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.858<br>33.858<br>33.530   | 10.135<br>127.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.858<br>33.530<br>39.552<br>42.580  |
| 56  | N160ic Nethod:  | Aug ct   Aug fs   Avg lu   Avg Rf   SBT   SBT  | 5 7 8 6 6 7 7 8 8 7 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 | pd<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | bsf 0.009 0.019 0.028 0.038 0.085 0.057 0.067 0.075 0.067 0.075 0.067 0.075 0. | 1sf 0.009 0.009 0.009 0.009 0.008 0.048 0.057 0.067 0.077 0.086 0.105 0.115 0.124 0.133 0.143 0.152 0.162 0.171 0.181 0.190 0.190 0.190 0.190 0.105 0.105 0.105 0.105 0.115 0.124 0.133 0.143 0.152 0.162 0.171 0.181 0.190 0. | 15f  | 5 1.700<br>5 1.700<br>5 1.700<br>5 1.700<br>6 1.700<br>7 1.700<br>7 1.700<br>8 1.700<br>9 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>8.088<br>8.647<br>8.588<br>9.958<br>7.889<br>9.306<br>8.349<br>7.989  | bpf 6.756 10.973 16.039 19.938 24.927 19.485 22.331 24.448 16.329 13.340 13.749 14.700 14.600 16.929 13.412 15.821 14.193 13.547 13.412  | bpf 1.850 1.850 6.135 7.697 9.039 9.156 8.591 9.257 6.103 5.128 5.043 5.097 5.358 5.408 5.219 5.041 5.408 5.538 5.538 5.538  | bpl 3.145 66 6.644 89 10.429 10.429 10.429 10.429 10.429 10.56 66 15.566 83 14.605 61 15.573 28 8.717 20.8.574 20.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.9.193 16.8.574 19.414 15.8.574 19.414 19.414 19.414 19.414 19.414 19.414 19.414 19.414 19.414 1 | 61.388 1 95.527 ( 42.440 ( 66.257 1 32.583 ( 11.146 1 85.001 1 85.001 1 85.001 1 85.001 1 85.001 6 85.   | % bf 1,674 6.213 3.981 1.6826 3.772 29.516 3.772 29.516 3.6889 3.848 45.870 3.081 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.033 41.067 3.034 41.969 3.0372 3   | -0.030 -0.010 -0.006 -0.005 -0.003 -0.004 -0.006 -0.006 -0.008 -0.008 -0.008 -0.008 -0.009 -0.009  | -0.030<br>-0.010<br>-0.005<br>-0.005<br>-0.004<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.010<br>-0.010<br>-0.010<br>-0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.434<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.707<br>150.707<br>153.161<br>138.331<br>129.951   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.968<br>4.331<br>2.416<br>1.934<br>1.977<br>2.038<br>2.179<br>2.165<br>2.011<br>1.992<br>2.388<br>2.526<br>2.412<br>2.388  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>536.453<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>136.700<br>151.706<br>154.160<br>139.330   | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.118<br>2.078<br>2.471<br>2.575<br>2.495<br>2.431<br>2.431<br>2.451<br>2.535<br>2.453<br>2.451<br>2.535<br>2.453<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.535<br>2.451<br>2.575<br>2.451<br>2.451<br>2.575<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451<br>2.451 | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.550<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000  | 72.569 82.795 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.909 52.667 0.000 48.345 52.221 53.514 51.392 50.358   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.988<br>34.988<br>34.785<br>0.000<br>34.354<br>35.368<br>35.368<br>35.368<br>35.368<br>36.105<br>35.368<br>36.105<br>35.368<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.105<br>36.1 | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.302<br>-0.327<br>-0.317<br>-0.328<br>-0.296<br>-0.296<br>-0.249<br>-0.205<br>-0.149   | 0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.430<br>3.578<br>3.530<br>3.624<br>3.435<br>0.000<br>3.576<br>3.570<br>3.570<br>3.570<br>3.284   | tsf 0.000 0.000 88.660 98.585 110.665 113.251 104.374 109.493 81.656 0.000 73.300 74.540 77.296 77.014 0.000 73.521 80.349 83.440 81.484 81.688  | 1sf  | 8sf 0.000 0.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.478<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675<br>3.365<br>3.386<br>3.353<br>4.084<br>4.084<br>4.084  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.749<br>33.858<br>33.530<br>39.552<br>42.580<br>40.642   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.858<br>33.550<br>39.552<br>42.580<br>40.642<br>40.235   |
| 56 0.100 57 0.150 58 0.250 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500 65 0.550 66 0.600 67 0.650 68 0.700 69 0.750 71 0.850 72 0.900 73 0.950  | Depth   Blev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug of   Aug is   Aug   Aug   RI   SBT   SBT   | 5 7 8 6 6 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 7 7 7 8 8 7 7 7 7 8 8 7 7 6 8 7 7 6 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 8 7   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.057 0.057 0.057 0.057 0.056 0.105 0.1124 0.133 0.143 0.143 0.145 0.152 0.162 0.171 0.181 0.190 0.200   | tsf 0.009 0.019 0.019 0.028 0.038 0.038 0.038 0.057 0.077 0.086 0.105 0.115 0.124 0.133 0.145 0.145 0.145 0.145 0.145 0.145 0.145 0.150 0. | 18f  | 5 1.700 5 1.700 5 1.700 6 1.700 6 1.700 6 1.700 7 1.700  | bpf 3.974 6.455 9.434 11.728 14.663 11.4663 11.4663 11.4663 11.462 9.594 7.847 8.088 8.647 8.956 8.349 7.969 8.349 7.889 9.005 8.349 7.889 8.0.075 8.340 8.340 7.889 8.0.075   | bpf 6.756 10.973 16.039 19.938 24.927 19.485 22.331 24.448 16.324 16.309 13.749 14.700 14.600 15.829 13.412 15.821 14.193 13.547 13.727  | bpf 1.850 1.850 3.908 6.135 7.697 9.136 9.136 8.591 9.156 8.591 8.591 8.591 5.103 5.256 5.408 5.248 5.501 5.448 5.538 5.119 5.077 5.162 5.256  | bpf  | 61.388   195.527   (244.640   195.527   195.527   (244.640   195.527   195.527   (244.642   195.527   195.527   (244.642   195.527   195.527   (244.642   195.527   195.527   (245.527   195.527   (245.527   195.527   1   | \$ lsf   1574   6213   6213   6214   6  | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.004<br>-0.004<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.010<br>-0.010<br>-0.009<br>-0.009<br>-0.009<br>-0.009   | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.010<br>-0.010<br>-0.009<br>-0.009<br>-0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.972<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>138.331<br>129.951<br>126.512   | MPa<br>0.614<br>1.631<br>2.847<br>3.534<br>4.415<br>4.600<br>3.968<br>4.331<br>1.977<br>2.038<br>2.179<br>2.165<br>2.011<br>1.992<br>2.348<br>2.523<br>2.412<br>2.388<br>2.443<br>2.523  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>136.700<br>151.706<br>133.330<br>130.950<br>127.511  | 2.366 2.103 2.126 1.966 1.896 1.890 2.471 2.575 2.495 2.451 2.451 2.536 2.289 2.152 2.077 2.060   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.639<br>27.088<br>28.560<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000<br>5.000<br>5.000  | 72.569 82.795 84.828 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.909 52.667 0.000 48.345 52.221 53.514 51.392 50.358 50.315   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>0.000<br>34.354<br>34.481<br>34.785<br>0.000<br>35.318<br>34.818<br>34.818<br>34.818<br>35.169<br>35.251<br>35.251<br>35.262   | -0.380<br>-0.421<br>-0.383<br>-0.383<br>-0.392<br>-0.392<br>-0.383<br>-0.429<br>-0.000<br>-0.352<br>-0.327<br>-0.327<br>-0.328<br>-0.249<br>-0.205<br>-0.155<br>-0.149<br>-0.144<br>-0.131   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>2.536<br>3.257<br>0.000<br>3.573<br>3.424<br>3.435<br>0.000<br>3.570<br>3.307<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.200<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000<br>3.000 | tsf 0.000   0.000   88.660   98.585   110.665   112.651   104.374   109.498   81.656   0.300   73.521   80.349   83.440   81.663   82.036   82.036   83.395   83.050   83.395   83.050   83.395   83.050   83.395  | 1.5f 0.414 0.000   | ssf 0.000 0.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.7478<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675<br>3.386<br>3.385<br>3.437<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4.081<br>4 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>33.858<br>33.530<br>39.552<br>42.580<br>40.642<br>40.235   | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.749<br>33.858<br>33.858<br>33.858<br>33.858<br>40.642<br>40.255   |
| SE  | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug ct   Aug fs   Aug N   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 8 7 8 7 8 7 7 8 8 7 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8   | pd<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733  | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.057 0.077 0.086 0.105 0.115 0.124 0.133 0.143 0.152 0.152 0.151 0.190 0.200 0.210 0.210  | tsf 0.009 0.019 0.028 0.009 0.009 0.008 0.038 0.048 0.057 0.067 0.067 0.075 0.086 0.096 0.105 0.115 0.124 0.133 0.143 0.143 0.152 0.162 0.162 0.162 0.162 0.171 0.181 0.190 0.200 0.219  | Section   Text   | 5 1.700 5 1.700 5 1.700 5 1.700 6 1.700 6 1.700 6 1.700 7 1.700  | bpf 3.974 6.455 9.434 11.728 9.434 11.728 11.728 11.728 9.594 7.847 7.847 7.889 9.306 7.989 7.989 8.349 7.989 8.075 8.349 9.154  | bpf 6.756 10.973 16.039 19.938 24.927 19.485 22.331 24.448 16.309 13.749 14.700 14.700 16.929 13.412 15.821 14.193 13.547 13.727 14.178 15.562   | bpf 1.850 1.850 8.135 9.039 9.156 8.591 9.257 6.103 5.128 6.097 6.358 6.408 6.219 6.001 6.448 6.119 6.501 6.468 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.119 6.503 6.503  | bpf  | 61.388 1 95.527 (c) 42.440 (c) 66.257 1 32.583 (c) 11.146 1 32.583 (c) 12.68   | % 15/14 62/13 15/14 62/13 15/14 62/13 15/14 62/13 15/14 62/13 15/14 62/14 15/1   | -0.030 -0.010 -0.006 -0.004 -0.003 -0.004 -0.008 -0.008 -0.008 -0.008 -0.009 -0.009 -0.009 -0.009 -0.009 -0.009  | -0.030 -0.010 -0.006 -0.005 -0.003 -0.004 -0.006 -0.008 -0.008 -0.008 -0.008 -0.009 -0.009 -0.009 -0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>182.463<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>138.331<br>129.951<br>126.512  | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 1.977 2.038 2.179 2.165 2.011 1.992 2.348 2.526 2.412 2.388 2.443 2.525 2.767  | 905.847<br>1049,768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>151.706<br>154.160<br>139.330<br>130.950<br>127.511<br>125.579   | 2.366 2.103 2.126 1.966 1.890 2.171 2.575 2.495 2.495 2.453 2.416 2.535 2.416 2.535 2.451 2.535 2.466 2.289 2.152 2.077 2.060 2.024   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.560<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000<br>5.000<br>5.000  | 72.569 82.795 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.122 53.514 51.392 50.355 50.566 50.566  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.886<br>38.119<br>35.318<br>0.000<br>34.384<br>34.785<br>0.000<br>34.393<br>35.521<br>35.521<br>35.521<br>35.362<br>35.516<br>35.516   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.000<br>-0.352<br>-0.317<br>-0.328<br>0.000<br>-0.296<br>-0.249<br>-0.205<br>-0.155<br>-0.149<br>-0.144<br>-0.131  | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.536<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.425<br>3.435<br>0.000<br>3.578<br>3.307<br>3.190<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264<br>3.264 | tsf 0.000 0. | tsf  | 1.000 (1.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.013<br>2.743<br>4.812<br>5.941<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.675<br>3.650<br>3.386<br>3.383<br>3.282<br>4.084<br>4.084<br>4.084<br>4.084<br>4.083<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4.084<br>4. | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>38.592<br>42.580<br>40.642<br>40.235<br>41.181<br>42.534<br>46.687   | 10.135<br>27.434<br>48.116<br>99.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.858<br>33.530<br>39.552<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.843<br>40.842<br>40.843<br>40.844<br>40.843<br>40.843<br>40.844<br>40.843<br>40.843<br>40.844<br>40.843<br>40.844<br>40.843<br>40.844<br>40.843<br>40.844<br>40.843<br>40.844<br>40.843<br>40.844<br>40.843<br>40.844<br>40.844<br>40.843<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40.844<br>40 |
| 55  | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug ct   Aug fs   Avg u   Avg Rf   SBT   SBTn  | S 7 8 8 7 8 8 7 9 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 8 7 7 8 8 7 7 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8   | pd<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733  | bsf 0.009 0.009 0.009 0.009 0.009 0.008 0.008 0.008 0.008 0.006 0. | tsf 0.009 0.009 0.009 0.009 0.009 0.008 0.038 0.048 0.057 0.067 0.067 0.077 0.086 0.096 0.115 0.124 0.133 0.143 0.143 0.162 0.171 0.181 0.190 0.200 0.210 0.219 0.229  | Section   Text   | 0 1.700  | bpf 3.974 3.974 3.975 4.9434 11.728 14.663 11.4663 11.3136 13.136 14.381 9.602 9.594 7.847 7.847 7.847 8.088 8.588 9.958 7.889 9.306 8.349 7.989 7.889 8.034 9.154 9.154 9.154   | bpf 6.756 10.973 16.039 19.938   | bpf 1.850 1.850 6.135 7.697 9.039 9.156 6.103 9.156 6.103 5.128 5.097 5.358 5.219 5.001 5.408 5.219 5.007 5.558 5.528 5.119 5.077 5.162 5.558 5.572  | bpf  | 61.388   195.527   (19   | \$\frac{5}{5}\$ \text{uf}\$ \$\frac{1}{5}\$ u  | -0.030 -0.010 -0.006 -0.004 -0.004 -0.004 -0.008 -0.008 -0.008 -0.009  | -0.030<br>-0.010<br>-0.006<br>-0.005<br>-0.004<br>-0.003<br>-0.004<br>-0.008<br>-0.008<br>-0.008<br>-0.009<br>-0.010<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0.009<br>-0 | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>182.463<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>138.331<br>129.951<br>126.512  | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 1.977 2.038 2.179 2.165 2.011 1.992 2.348 2.526 2.412 2.388 2.443 2.525 2.767  | 905.847<br>1049,768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>151.706<br>154.160<br>139.330<br>130.950<br>127.511<br>125.579   | 2.366 2.103 2.126 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.453 2.416 2.289 2.453 2.289 2.073 2.077 2.077 2.077   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.550<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000  | 72.569 82.795 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.909 52.667 0.000 48.345 52.221 53.514 51.392 50.315 50.566 52.591 50.566 52.591   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.586<br>38.119<br>35.318<br>0.000<br>34.354<br>34.488<br>34.785<br>0.000<br>35.521<br>35.299<br>35.251<br>35.362<br>35.516<br>35.561<br>35.961   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.000<br>-0.352<br>-0.317<br>-0.328<br>0.000<br>-0.296<br>-0.249<br>-0.205<br>-0.155<br>-0.149<br>-0.144<br>-0.131  | 0.000<br>0.000<br>3.000<br>2.683<br>2.499<br>2.365<br>2.536<br>3.257<br>0.000<br>3.578<br>3.530<br>3.424<br>3.435<br>0.000<br>3.570<br>3.190<br>3.264<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284<br>3.284 | tsf 0.000 88.660 98.660 113.251 110.665 113.251 104.374 109.498 81.656 0.000 73.300 74.540 77.298 77.014 0.349 81.484 81.063 82.036 83.349 81.484 81.063 82.036 83.395 87.307  | 1.5f 0.414 0.000   | 1.000 (1.   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | MPa<br>1.013<br>2.743<br>4.812<br>5.981<br>7.794<br>6.699<br>7.335<br>4.081<br>3.262<br>3.335<br>3.437<br>3.650<br>3.386<br>3.385<br>4.084<br>4.084<br>4.023<br>4.118<br>4.253<br>4.669   | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>38.592<br>42.580<br>40.642<br>40.235<br>41.181<br>42.534<br>46.687   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>40.810<br>32.618<br>33.457<br>36.749<br>36.749<br>36.499<br>33.858<br>33.858<br>42.580<br>40.642<br>40.235<br>41.181<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40.642<br>40 |
| SF   0.1000   | Depth   Elev      | Aug at   Aug is   Aug   Aug RI   SBT   SBTn  | 5 7 8 6 6 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 8 7 7 8   | pef<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733   | bsf 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.067 0.077 0.086 0.096 0.105 0.115 0.124 0.152 0.162 0.162 0.162 0.162 0.162 0.209 0.219 0.229 0.239  | tsf 0.009 0.009 0.009 0.009 0.009 0.0038 0.048 0.057 0.067 0.067 0.077 0.086 0.105 0.115 0.124 0.133 0.152 0.162 0.171 0.181 0.190 0.200 0.200 0.200 0.200 0.200 0.200 0.229 0.239   | Set  | 0 1.700  | bpf 3.974 3.974 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0   | byf<br>6.756<br>6.756<br>6.756<br>6.756<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.324<br>16.329<br>13.749<br>14.700<br>14.700<br>14.700<br>14.700<br>14.522<br>15.821<br>14.193<br>13.547<br>13.412<br>13.547<br>13.117<br>13.727<br>14.178<br>15.562<br>15.687<br>16.301<br>18.694  | bpf 1.850 1.850 1.850 6.135 6.135 9.039 9.039 9.039 9.156 8.891 9.257 5.128 5.043 5.097 5.358 5.219 5.001 5.448 5.538 5.119 5.077 5.162 5.556 5.562 5.565 5.562 5.565  | bpf  | 61.388   55.527   (2.400   1.0   | % 15/14 6.213 1.57   | -0.030 -0.010 -0.006 -0.005 -0.004 -0.004 -0.004 -0.006 -0.008 -0.008 -0.008 -0.009  | -0.030 -0.010 -0.006 -0.005 -0.004 -0.005 -0.004 -0.008 -0.008 -0.008 -0.009 -0.001 -0.001 -0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>299.943<br>299.943<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>133.331<br>129.951<br>126.512<br>124.579<br>130.685<br>126.128<br>126.523<br>130.685<br>126.128<br>126.523<br>130.685<br>126.523<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.685<br>130.6 | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 1.977 2.038 2.179 2.165 2.011 1.992 2.348 2.252 2.342 2.528 2.412 2.528 2.348 2.453 2.523 2.767 2.789 2.887 3.320  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>165.510<br>147.054<br>136.700<br>154.160<br>139.330<br>127.511<br>125.579<br>131.684<br>127.128<br>127.128  | 2.366 2.103 2.126 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.4416 2.453 2.416 2.453 2.416 2.453 2.466 2.289 2.152 2.073 2.060 2.024 1.982 1.982 1.982  | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.659<br>27.088<br>28.560<br>32.263<br>29.172<br>22.172<br>22.173<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000   | 72.569 82.795 84.828 87.982 86.490 86.490 80.000 53.482 53.122 53.909 52.667 0.000 48.345 52.251 50.358 50.315 50.566 52.901 52.203 52.710   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.886<br>38.119<br>35.318<br>0.000<br>34.354<br>34.384<br>34.785<br>0.000<br>34.380<br>35.521<br>35.299<br>35.525<br>35.516<br>35.562<br>35.516<br>35.999<br>36.837   | -0.380<br>-0.421<br>-0.383<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.000<br>-0.382<br>-0.327<br>-0.317<br>-0.328<br>-0.000<br>-0.299<br>-0.205<br>-0.149<br>-0.144<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.355<br>2.430<br>3.257<br>0.000<br>3.578<br>3.530<br>3.630<br>3.570<br>3.570<br>3.264<br>3.264<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280<br>3.280 | tsf 0.000 0. | 1sf 0.414 0.000 0. | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 10.000   | MPa 1.013 2.743 4.812 5.981 7.798 4.812 5.981 7.478 7.794 4.081 3.262 3.335 4.081 3.262 3.335 4.258 4.258 4.264 4.021 4.128 4.263 4.669 4.706 4.890 5.608   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.858<br>33.530<br>40.642<br>40.235<br>41.181<br>42.534<br>46.687<br>47.062<br>48.902<br>56.083   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.499<br>33.858<br>33.858<br>33.530<br>39.552<br>42.580<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40.842<br>40 |
| SE  | N150 c Memori:   Depth   Elev   Elev     n  | Aug ct   Aug fs   Aug u   Aug Rt   SBT   SBT   | 5 7 8 6 6 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8   | pef<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733   | bif 0.009 0.019 0.028 0.038 0.048 0.056 0. | tsf 0.009 0.019 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.067 0.077 0.086 0.105 0.115 0.124 0.133 0.143 0.152 0.162 0.162 0.162 0.162 0.162 0.162 0.209 0.209 0.209 0.229 0.229 0.229 0.229 0.248  | 15f   17   | 0 1.700<br>0 1.700   | bpf 3.974 6.455 9.434 6.455 9.434 11.728 11.728 14.663 11.4381 14.881 9.602 9.594 7.847 8.088 8.647 8.588 9.958 9.306 9.154 9.258 8.075 8.349 9.154 9.258 10.997 10.025  | bpf 6.756 10.973 16.039 19.938 24.927 19.485 22.331 16.324 16.309 13.340 13.340 13.749 14.700 14.600 13.742 13.727 14.178 15.562 15.667 16.301 18.594 17.042   | bpf 1.850 3.908 6.135 7.697 9.039 9.156 8.991 9.257 6.103 5.128 5.043 5.097 5.358 5.408 5.297 5.358 5.408 5.219 5.438 5.119 5.448 5.119 5.677 5.162 5.256 5.258 5.275 5.722 5.5672 5.722   | bpf  | 61.388   61.388   61.388   61.388   61.388   62.57   63.135   63.2563   63.135   63.2563   63.135   63.2563   63.135   63.2563   63.135   63.2563  | % sf   sf   sf   sf   sf   sf   sf   sf  | -0.030 -0.010 -0.006 -0.005 -0.004 -0.004 -0.006 -0.008 -0.008 -0.008 -0.009   | -0.030 -0.010 -0.006 -0.005 -0.004 -0.003 -0.004 -0.008 -0.008 -0.008 -0.008 -0.009 -0.010 -0.010 -0.009   | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>182.263<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>138.331<br>126.512<br>124.579<br>130.685<br>126.128<br>125.723<br>138.561  | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 1.977 2.038 2.179 2.165 2.248 2.252 2.388 2.243 2.523 2.767 2.789 2.837 2.837 3.320  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>196.26<br>185.728<br>183.463<br>169.510<br>147.054<br>136.700<br>154.160<br>154.160<br>139.330<br>130.950<br>127.511<br>125.579<br>131.684<br>127.122<br>139.561  | 2.366 2.103 2.128 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.453 2.416 2.289 2.152 2.073 2.000 2.024 1.980 1.980 1.980 1.985 1.915   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.550<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5 | 72.569 82.795 84.828 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.909 52.667 0.000 55.369 52.221 53.515 50.566 52.591 52.203 52.710 56.069  | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.409<br>37.686<br>38.119<br>35.318<br>0.000<br>34.354<br>34.818<br>34.785<br>35.521<br>35.521<br>35.521<br>35.521<br>35.521<br>35.521<br>35.521<br>35.561<br>35.561<br>35.561<br>36.837<br>37.686<br>38.737<br>37.686  | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.343<br>-0.392<br>-0.392<br>-0.392<br>-0.327<br>-0.327<br>-0.328<br>-0.000<br>-0.298<br>-0.249<br>-0.205<br>-0.155<br>-0.144<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.132   | 0.000<br>0.000<br>3.000<br>2.683<br>2.409<br>2.365<br>2.430<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530<br>3.530 | tsf 0.000 0.000 88.660 98.585 110.665 113.251 104.374 109.488 81.656 0.000 73.500 74.540 77.296 77.014 0.349 83.494 81.484 81.484 81.683 82.036 83.395 87.357 87.702 89.366 95.523   | 1sf 0.414 0.400 0.000 0. | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | 10.000   | MPa 1.013 2.743 4.812 5.981 7.794 6.699 7.335 4.021 3.355 4.258 4.064 4.081 4.  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>33.858<br>33.550<br>39.552<br>42.580<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40.623<br>40 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.794<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>33.389<br>33.858<br>40.258<br>40.42<br>40.235<br>41.181<br>42.530<br>44.258<br>40.258<br>41.181<br>42.530<br>44.258<br>44.258<br>45.258<br>46.687<br>47.062<br>48.902<br>56.063  |
| SS  | N160ic Nemboc:  | Aug ct   Aug fs   Aug u   Aug N   SBT   SBT  | S 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 6 6 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 8 7 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 8 7 7 8 8 8 7 8 8 8 | pef<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733   | bif 0.009 0.019 0.028 0.038 0.038 0.048 0.057 0.086 0.086 0.086 0.096 0.105 0.115 0.124 0.133 0.143 0.143 0.152 0.162 0.107 0.124 0.139 0.200 0.200 0.200 0.200 0.219 0.229 0.239 0.248 0.258 0.258 0.258  | tsf 0.009 0.019 0.009 0.019 0.028 0.038 0.048 0.057 0.067 0.067 0.077 0.086 0.078 0.015 0.115 0.124 0.133 0.143 0.152 0.162 0.162 0.162 0.162 0.209 0.209 0.209 0.209 0.229 0.229 0.229 0.238 0.268 0.268 0.268  | Sef  | 0 1.700  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>14.663<br>11.462<br>13.136<br>14.381<br>9.602<br>9.594<br>7.847<br>7.847<br>8.647<br>7.889<br>9.306<br>8.349<br>9.308<br>8.349<br>9.306<br>8.349<br>9.359<br>9.306<br>8.349<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359<br>9.359  | byf<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.309<br>13.340<br>13.749<br>14.700<br>14.600<br>16.929<br>13.412<br>15.821<br>13.412<br>15.827<br>13.412<br>15.827<br>13.412<br>15.827<br>13.412<br>15.837<br>15.687<br>16.301<br>18.694<br>17.042<br>21.851<br>26.892   | bpf 1.850 3.908 6.135 7.697 9.039 9.156 8.991 9.257 6.103 5.128 5.043 5.128 5.043 5.097 5.001 5.448 5.409 5.001 5.458 5.419 5.001 5.458 5.419 5.001 5.458 5.419 5.001 5.458 6.655 6.672 6.722 6.729 6.7879 9.785   | bpf  | 61.388   95.527   (2.40   1.20   | 56 Isf<br>1674 6,213 1,000   | -0.030 -0.010 -0.006 -0.005 -0.004 -0.006 -0.006 -0.008 -0.008 -0.008 -0.008 -0.009  | -0.030 -0.010 -0.005 -0.005 -0.004 -0.005 -0.004 -0.003 -0.004 -0.008 -0.008 -0.008 -0.008 -0.009  | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>290.943<br>209.9772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>129.551<br>126.512<br>124.579<br>130.685<br>126.512<br>124.579<br>130.685<br>125.723<br>138.561<br>146.005<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126.512<br>126. | MF9 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.934 1.977 2.038 2.179 2.165 2.011 1.992 2.165 2.011 2.938 2.152 2.789 2.897 2.897 2.897 3.300 5.161 6.347  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>588.223<br>291.942<br>210.772<br>183.463<br>185.728<br>183.463<br>169.510<br>151.706<br>154.160<br>139.330<br>130.950<br>127.511<br>125.579<br>131.684<br>127.128<br>126.722<br>139.506<br>149.306<br>149.306<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.1 | 2.366 2.103 2.128 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.453 2.451 2.536 2.451 2.536 2.289 2.152 2.077 2.060 2.024 1.980 1.985 1.915 1.985 1.985 1.985   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>22.263<br>32.263<br>32.263<br>32.263<br>32.263<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5 | 72.569 82.795 84.628 87.982 86.490 79.895 80.569 62.090 0.000 53.482 53.122 53.909 52.667 0.000 48.345 52.221 53.514 51.392 50.358 50.3165 50.566 52.591 52.503 52.710 56.069 61.109 67.693 73.122   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.212<br>38.419<br>35.318<br>0.000<br>34.354<br>34.418<br>34.418<br>34.785<br>0.000<br>35.516<br>35.521<br>35.521<br>35.525<br>35.521<br>35.525<br>35.525<br>35.521<br>35.525<br>35.521<br>35.525<br>35.525<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.527<br>35.5 | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.343<br>-0.392<br>-0.382<br>-0.352<br>-0.377<br>-0.377<br>-0.372<br>-0.295<br>-0.295<br>-0.155<br>-0.149<br>-0.131<br>-0.131<br>-0.131<br>-0.131<br>-0.132<br>-0.157<br>-0.178   | 0.000 0.000 3.000 2.683 2.409 2.365 2.439 2.459 0.000 3.578 3.690 3.435 0.000 3.578 3.424 3.435 0.000 3.579 3.190 3.290 3.291 3.290 3.291 3.291 3.291 3.291 3.291 3.291 3.291 3.291 3.291 3.291 3.291 3.291   | tsf 0.000   0.000   88.665   110.665   113.251   104.374   109.498   81.656   0.000   73.300   74.540   77.296   77.014   0.000   73.521   83.440   81.484   81.685   82.036   83.395   87.357   87.702   89.366   95.523   105.321   121.172   138.825  | tsf 0.414 0.000 0.414 0.000 0. | 1 bif  | 10.000   | MPa 1.013 1.  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>40.810<br>32.618<br>33.4373<br>36.749<br>36.499<br>33.858<br>33.9552<br>42.580<br>40.642<br>40.622<br>40.235<br>41.181<br>46.687<br>47.062<br>48.902<br>56.8169<br>87.404  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>33.349<br>33.349<br>33.350<br>39.552<br>40.642<br>40.255<br>41.181<br>42.534<br>46.687<br>47.062<br>56.063<br>68.169<br>87.404   |
| 55  | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug ct   Aug fs   Aug N   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 7 8 8 8 8 7 7 8 8 8 8 9 7 8 8 8 8   | pef<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>120.915<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733   | bif 0.009 0.009 0.019 0.009 0.009 0.008 0.008 0.008 0.008 0.008 0.009 0. | tsf 0.009 0.019 0.009 0.019 0.029 0.028 0.057 0.057 0.056 0.057 0.056 0.057 0.056 0.105 0.115 0.124 0.133 0.143 0.152 0.162 0.171 0.181 0.190 0.200 0.210 0.219 0.229 0.239 0.248 0.258 0.258 0.258  | 187 R 1000 A 100 | 0 1.700  | bpf 3 974 6.455 9.434 11.728 11.728 14.665 111.728 14.665 113.136 14.381 9.602 9.594 8.687 7.889 9.595 8.349 7.889 9.506 8.349 7.989 8.075 8.349 7.989 9.306 8.349 7.989 9.306 8.349 7.285 8.340 9.154 9.154 15.819 17.889 10.997 10.025 12.854 15.819 17.889  | byf<br>6.756<br>6.756<br>10.973<br>16.039<br>19.938<br>24.927<br>19.485<br>22.331<br>24.448<br>16.329<br>13.340<br>13.749<br>14.700<br>16.529<br>13.341<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.422<br>15.821<br>14.193<br>15.867<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16.307<br>16. | bpf 1.850 3.008 6.135 7.697 9.039 9.156 8.591 9.257 6.103 5.128 5.043 5.043 5.043 5.043 5.043 5.043 5.043 5.07 6.358 5.408 5.521 5.07 6.358 5.408 5.538 5.408 5.538 5.722 5.66 6.722 5.66 6.722 5.787 7.879 9.785 11.713   | bpf   66   6.644   89   10.429 | 61.388   95.527   (142.440   (166.257   (142.440   (166.257   (142.440   (166.257   (142.440   (166.257   (142.440   (166.257   (142.440   (142   | 56 Isf<br>1674 6.213 1674 6.213 16826 1777 2.2516 16826 1777 2.2516 16826 1777 2.2516 1778 1878 1878 1878 1878 1878 1878 18  | -0.030 -0.010 -0.006 -0.006 -0.006 -0.006 -0.006 -0.006 -0.008 -0.008 -0.008 -0.009  | -0.030 -0.010 -0.006 -0.005 -0.004 -0.004 -0.004 -0.006 -0.008 -0.008 -0.008 -0.008 -0.009 -0.010 -0.009  | 681.165<br>904.851<br>1048.770<br>970.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.972<br>195.266<br>184.729<br>182.643<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>128.951<br>124.579<br>130.685<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.128<br>126.1 | MPa 0.614 1.631 2.847 3.534 4.415 4.600 3.958 4.331 2.416 1.937 2.038 2.179 2.165 2.011 1.992 2.348 2.526 2.412 2.388 2.432 2.527 2.789 2.403 3.320 4.030 5.161 6.347 7.055  | 905.847<br>1049.768<br>971.671<br>967.582<br>836.443<br>614.784<br>588.223<br>291.942<br>210.772<br>196.285<br>185.728<br>183.463<br>169.510<br>147.054<br>136.700<br>151.706<br>154.160<br>139.330<br>127.511<br>125.579<br>131.684<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.128<br>127.1 | 2.366 2.103 2.126 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.453 2.451 2.451 2.456 2.289 2.166 2.289 2.17 2.060 2.098 1.982 1.981 1.982 1.981 1.985 1.917 1.846 1.756 1.672  | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>30.460<br>28.639<br>27.088<br>28.550<br>32.263<br>29.172<br>22.117<br>17.430<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5 | 72.569 82.795 84.628 87.982 86.490 0.000 53.482 53.122 53.309 52.667 0.000 48.345 52.221 53.514 51.392 50.358 50.315 50.256 52.291 52.201 52.203 52.291 52.203 52.710 56.069 67.693 73.122   | deg<br>0.000<br>33.421<br>36.105<br>37.145<br>38.212<br>38.419<br>37.686<br>38.119<br>35.318<br>0.000<br>34.458<br>34.4785<br>0.000<br>35.169<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35.516<br>35. | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.343<br>-0.382<br>-0.383<br>-0.429<br>-0.327<br>-0.317<br>-0.328<br>-0.000<br>-0.259<br>-0.149<br>-0.141<br>-0.131<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.131<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0.132<br>-0 | 0.000<br>0.000<br>3.000<br>2.683<br>2.499<br>2.395<br>2.439<br>3.257<br>0.000<br>3.578<br>3.537<br>3.578<br>3.530<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.264<br>3.283<br>3.284<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295<br>3.295 | tsf 0.000 0. | 184 0.414 0.000  | Bef  | 10.000   | MPa<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1073<br>1  | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>36.749<br>36.749<br>33.858<br>33.530<br>40.810<br>40.82<br>40.83<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.8 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.784<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.388<br>33.550<br>39.552<br>42.580<br>40.642<br>40.235<br>41.181<br>42.534<br>46.687<br>47.062<br>48.902<br>68.169<br>87.404<br>107.566  |
| \$6 0.000 5 0.0   | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug ct   Aug fs   Aug N   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8   | pef<br>114.551<br>117.733<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733   | bif 0.009 0.009 0.019 0.009 0.009 0.008 0.005 0. | tef 0.009 0.019 0.009 0.019 0.029 0.038 0.057 0.057 0.056 0.057 0.056 0. | Sef  | 0 1.700  | bpf 4.3.974 6.455 9.434 11.726 11.4762 13.174 14.683 11.4762 13.1362 13.1362 13.1362 13.1363 1.662 13.1363 1.662 13.1363 1.662 13.1363 13.1462   | byf<br>6.756<br>10.973<br>16.039<br>16.039<br>19.938<br>19.938<br>19.938<br>124.927<br>19.485<br>22.331<br>24.448<br>16.324<br>16.324<br>16.339<br>13.340<br>13.340<br>13.340<br>13.340<br>13.528<br>14.700<br>14.600<br>15.821<br>14.193<br>13.412<br>15.821<br>14.193<br>13.422<br>15.821<br>14.178<br>15.821<br>14.178<br>15.821<br>16.929<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.042<br>17.043<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>17.044<br>1 | bpf 1.850 3.908 6.135 7.697 9.097 9.156 8.156 8.156 8.156 8.156 8.156 8.156 8.128 8.043 8.128 8.043 8.128 8.043 8.128 8.043 8.128 8.043 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8.129 8.128 8. | bof  | 61388   195.527  | \$\frac{1}{5}\$ isf \$\frac{1}{6}\$ isf \$\frac{1}{6}  | -0.030 -0.010 -0.006 -0.006 -0.006 -0.006 -0.008 -0.009  | -0.030 -0.010 -0.005 -0.005 -0.004 -0.006 -0.008 -0.008 -0.008 -0.008 -0.008 -0.009  | 681.165<br>904.851<br>1048.770<br>976.673<br>966.583<br>835.454<br>613.785<br>587.224<br>290.943<br>209.772<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>150.707<br>153.161<br>136.351<br>129.951<br>126.512<br>124.579<br>130.885<br>126.281<br>126.207<br>200.026<br>237.399<br>254.854<br>259.897  | MPpa 0.614 1.631 1.2847 1.631 1.2847 1.631 1.2847 1.631 1.2847 1.631 1.2847 1.631 1.2847 1.631 1   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>614.784<br>858.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>169.510<br>147.054<br>133.953<br>152.112<br>136.700<br>151.706<br>154.160<br>139.330<br>127.511<br>125.578<br>127.128<br>126.722<br>139.561<br>163.056<br>201.025<br>233.398<br>260.897<br>288.057<br>288.057<br>288.057   | 2.366 2.103 2.126 1.960 1.960 1.980 2.118 2.078 2.471 2.575 2.495 2.495 2.451 2.451 2.451 2.289 2.152 2.073 2.070 2.024 1.980 1.982 1.982 1.985 1.917 1.846 1.756 1.677 1.864   | 25.027<br>15.906<br>16.610<br>12.057<br>10.158<br>16.348<br>15.147<br>29.416<br>34.147<br>29.416<br>34.147<br>29.416<br>34.147<br>29.416<br>34.147<br>29.416<br>34.147<br>29.416<br>34.147<br>29.416<br>30.460<br>28.639<br>27.088<br>28.590<br>32.263<br>32.263<br>32.27<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.000<br>5.00       | 72.559 82.795 82.795 84.828 84.828 84.928 86.490 79.995 80.559 62.090 0.000 53.482 53.122 53.122 53.124 51.392 50.5667 50.358 50.315 50.566 52.201 56.069 61.109 67.693 73.122 75.660 76.709   | deg 0,000 33.421 1 36.105 36.105 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 37.145 38.212 38.2   | -0.380<br>-0.421<br>-0.383<br>-0.343<br>-0.392<br>-0.383<br>-0.429<br>-0.327<br>-0.317<br>-0.327<br>-0.317<br>-0.327<br>-0.327<br>-0.17<br>-0.296<br>-0.249<br>-0.249<br>-0.144<br>-0.131<br>-0.132<br>-0.132<br>-0.142<br>-0.178<br>-0.178<br>-0.178  | 0.000<br>0.000<br>0.000<br>3.000<br>2.683<br>2.499<br>2.430<br>3.257<br>0.000<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.3570<br>3.35   | tsf 0,000 0. | tsf 0.414 0.000 0. | bif  | 10.000   | MPa   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>66.992<br>40.810<br>32.618<br>33.349<br>34.373<br>35.52<br>40.810<br>33.349<br>34.373<br>35.52<br>40.810<br>35.52<br>40.810<br>35.52<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810 | 10.135<br>27.434<br>48.116<br>99.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>33.345<br>34.373<br>36.749<br>33.388<br>33.353<br>40.642<br>40.235<br>41.181<br>42.580<br>40.642<br>40.235<br>41.181<br>42.580<br>40.642<br>40.235<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60.881<br>60 |
| \$6 0.000   50   50   50   50   50   50   5   | Depth   Elev      | Aug at   Aug is   Aug   Aug   Ri   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 8 7 7 8 8 7 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8   | pef 114.551 114.551 117.733 11   | bif 0.009 0.019 0.029 0.038 0.038 0.088 0.288 0.288 0.288 0.288 0.288 0.0288 0.028 0.038 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0 | taf 0.009 0.019 0.029 0.019 0.029 0.029 0.028 0.028 0.028 0.028 0.028 0.028 0.029 0.038 0. | Sef  | 0 1.700  | bpf 4.45 bpf   | bpf 6 75 8 75 8 75 8 75 8 75 8 75 8 75 8 75  | bpf 1.850 3.908 6.135 7.697 9.039 9.156 8.891 9.156 8.891 9.257 6.103 5.128 5.043 5.043 5.043 5.043 5.043 5.129 5.358 5.408 5.219 5.408 5.219 5.507 5.162 6.553 5.77 6.162 6.555 6.72 6.787 9.785 9.785 9.785 9.785 11.713 12.914 11.713   | pdf  | 61 388 55.57 55.55   | 5. Isf<br>16.74 6.213 1.054 1.05   | -0.030 -0.010 -0.005 -0.005 -0.005 -0.004 -0.004 -0.006 -0.008 -0.008 -0.008 -0.009   | -0.039 -0.008 -0.009 -0   | 681.165<br>904.851<br>1048.770<br>970.673<br>996.583<br>335.454<br>290.943<br>209.972<br>195.266<br>184.729<br>182.463<br>168.511<br>146.055<br>135.701<br>153.707<br>153.161<br>129.951<br>124.579<br>136.851<br>124.579<br>136.851<br>124.579<br>136.851<br>126.512<br>124.579<br>136.851<br>126.512<br>124.579<br>136.851<br>126.512<br>136.851<br>126.512<br>126.512<br>136.851<br>126.512<br>136.851<br>126.512<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.851<br>136.8 | MPa 0.614 1.631 2.647 2.648 2.648 2.648 2.648 2.248 2.258 2.268 2.2412 2.268 2   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>514.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.723<br>183.463<br>169.510<br>147.094<br>136.700<br>151.706<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.160<br>154.1 | 2.366 2.103 2.126 1.966 1.890 2.118 2.078 2.471 2.575 2.495 2.446 2.451 2.535 2.466 2.289 2.152 2.073 2.077 2.060 1.980 1.980 1.980 1.985 1.985 1.985 1.985 1.985 1.985 1.667 1.654 1.654   | 25,027<br>15,906<br>16,610<br>12,057<br>10,158<br>16,348<br>15,147<br>29,416<br>34,147<br>30,460<br>28,639<br>27,088<br>28,550<br>32,263<br>29,172<br>22,117<br>17,430<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5,000<br>5 | 72.559<br>82.795<br>84.828<br>87.982<br>86.490<br>99.895<br>80.559<br>62.090<br>0.000<br>53.482<br>53.122<br>53.909<br>52.667<br>0.000<br>48.345<br>52.221<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.514<br>53.5 | deg 0.000 33.3421 35.000 33.3421 35.000 35.0   | -0.380 -0.421 -0.383 -0.343 -0.343 -0.383 -0.383 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.382 -0.192 -0.192 -0.192 -0.204  | 0.000<br>0.000<br>3.000<br>2.083<br>2.499<br>3.257<br>3.257<br>3.350<br>3.257<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.357<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350 | tsf 0.000 0. | taf  | Section   Sect   | 10.000   | MP19 MP19 MP19 MP19 AR19 AR19 AR19 AR19 AR19 AR19 AR19 AR   | 10.135<br>27.434<br>48.116<br>48.116<br>74.781<br>74.781<br>74.781<br>73.345<br>40.810<br>33.349<br>34.373<br>35.499<br>36.499<br>36.499<br>36.499<br>46.842<br>40.235<br>41.181<br>46.842<br>46.842<br>47.842<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48.840<br>48 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>34.373<br>36.749<br>36.499<br>33.888<br>33.858<br>33.552<br>42.580<br>40.642<br>40.235<br>41.181<br>42.534<br>46.687<br>47.062<br>56.063<br>68.169<br>87.404<br>107.566<br>119.602<br>126.182<br>137.518<br>137.518  |
| \$6 0.000   \$7 0.150   \$8 0.200   \$9 0.250 | Depth   Elev      | Aug of   Aug fs   Aug   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 7 8 8 8 7 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 8 8 8 8 7 9 8 8 8 8   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>120.916<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117 | bif 0.009 0.009 0.009 0.009 0.009 0.009 0.005 0. | tsf 0.009 0.019 0.009 0.019 0.028 0.038 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.068 0.066 0. | isf  | 0 1.700  | bpf 4.45 bpf   | by!  | bpf 1850 3.908 6.135 7.697 7.697 9.039 9.156 6.135 9.257 9.257 9.257 5.128 5.043 5.128 5.043 5.043 5.043 5.047 5.075 5.158 5.108 5.075 5.1 | bpf  | 61 388 65 527 66 66 257 67 66 66 66 257 67 66 66 66 66 66 66 66 66 66 66 66 66   | 5. Isf<br>16.74 6.213 1.054 1.05   | -0.030 -0.010 -0.005 -0.005 -0.006  | -0.030 -0.000 -0   | 881165 99.4851  | MPa 0.614 1.631 1.934 1.935 1.   | 905.847<br>1049.768<br>971.671<br>967.582<br>836.453<br>1614.784<br>588.223<br>291.942<br>210.772<br>196.265<br>185.728<br>183.463<br>163.463<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>152.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151.706<br>151. | 2.366 2.106 2.126 1.960 2.128 1.960 1.980 2.118 2.078 2.471 2.575 2.495 2.495 2.451 2.535 2.416 2.451 2.535 2.416 2.289 2.152 2.073 2.077 2.077 1.846 1.980 1.982 1.982 1.985 1.917 1.846 1.756 1.652 1.652 1.654 1.653   | 25.027 15.906 16.510 12.057 10.158 10   | 72.556 82.785 82   | 6eg. 0.000 33.421 38.105 37.148 38.271 38.272 37.888 38.299 37.888 38.399 37.888 38.119 35.318 34.354 34.354 34.354 34.356 35.251 35.351 35.352 35.351 35.352 35.352 35.3536 35.3546 37.760 37.760   | -0.380 -0.421 -0.383 -0.343 -0.343 -0.343 -0.342 -0.352 -0.327 -0.328 -0.000 -0.352 -0.327 -0.328 -0.001 -0.352 -0.317 -0.328 -0.001 -0.250 -0.155 -0.155 -0.150 -0   | 0.000<br>0.000<br>2.083<br>2.409<br>2.430<br>3.22<br>3.25<br>3.25<br>3.25<br>3.424<br>3.35<br>3.35<br>3.35<br>3.35<br>3.35<br>3.35<br>3.35<br>3.3   | tsf 0.000 0. | tal 0.414 0.000 0. | Bif b  | 10.000   | MPa<br>MPa<br>MPa<br>12,743<br>4,812<br>5,981<br>7,478<br>6,699<br>7,335<br>4,081<br>3,365<br>3,365<br>3,365<br>3,365<br>3,365<br>3,365<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081<br>4,081 | 10 135<br>27 434<br>48 116<br>88 813<br>74 781<br>48 816<br>86 893<br>74 781<br>40 810<br>81 33 349<br>33 349<br>34 40 810<br>33 349<br>34 52 618<br>33 349<br>34 52 618<br>33 349<br>34 52 618<br>33 35 52<br>42 580<br>40 810<br>40 810          | 10.135<br>27.434<br>48.116<br>99.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>33.358<br>33.358<br>33.358<br>33.550<br>40.642<br>40.255<br>41.181<br>42.534<br>46.687<br>47.062<br>48.902<br>56.083<br>68.169<br>87.404<br>107.566<br>119.602<br>126.182<br>133.983<br>137.518  |
| 56 0.100 57 0.150 58 0.200 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 62 0.400 63 0.600 64 0.500 65 0.500 67 0.500 68 0.750 68 0.750 68 0.750 77 0.850 77 0.850 77 1.100 78 1.200 78 1.200 78 1.200 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 78 1.300 79 1.300  | No   Depth   Elev   Elev  | Aug ct   Aug fs   Aug u   Aug Rt   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 7 7 7 7 8 8 8 7 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8 8 8 8 8 8 7 8   | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>120.916<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117 | Section   Sect   | ted 0.009   0.019   0.009   0.019   0.028   0.038   0.048   0.057   0.077   0.077   0.077   0.077   0.086   0.066   0.105   0.115   0.115   0.124   0.133   0.152   0.152   0.152   0.152   0.152   0.152   0.152   0.152   0.153   0.152   0.153   0.153   0.153   0.153   0.153   0.153   0.153   0.153   0.155   0. | Sef  | 0 1.790  | bpf<br>3.974<br>6.455<br>9.434<br>11.728<br>11.728<br>13.136<br>11.462<br>13.136<br>14.381<br>9.502<br>9.594<br>7.847<br>8.088<br>8.647<br>8.588<br>9.958<br>7.889<br>9.306<br>8.349<br>7.869<br>8.369<br>7.869<br>8.369<br>7.869<br>8.369<br>7.869<br>8.369<br>7.869<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8.369<br>8. | ppf 1975   6,756   7,956   7,957   7,977   7,9   | bpf  | by   | 61.388 83.527 85.55 85.5   | \$\frac{1}{5}\$ \text{ is } \tex   | -0.030 -0.010 -0.000  | -0.032<br>-0.010<br>-0.006<br>-0.006<br>-0.006<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0.008<br>-0 | 881.165 99.4851 99.4851 99.4851 99.4851 99.4851 99.4851 99.4851 99.585  | MPa 0.614 1.631 1.934 1.415 1.934 1.937 1.938 1.   | 905.87 1 671.67 1 967.582   | 2.365 2.103 2.126 2.103 2.126 1.896 1.896 1.896 2.118 2.078 2.451 2.453 2.451 2.453 2.451 2.453 2.451 2.452 2.451 2.535 2.416 2.289 2.152 2.077 2.060 1.982 1.985 1.917 1.856 1.677 1.652 1.654 1.654 1.635 1.635   | 25.027 15.506 10.158 10.159 10.158 10.159 10.158 10   | 72.550 82.795 82   | 6eg  | -0.380   | 0.000<br>0.000<br>2.683<br>2.409<br>2.439<br>3.227<br>3.257<br>3.257<br>3.424<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570<br>3.570 | uf   | isf 0.414 0.000 0. | 10 000 000 000 000 000 000 000 000 000   | 10,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000 |   | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>59.813<br>74.781<br>75.345<br>66.992<br>33.457<br>36.749<br>33.349<br>33.349<br>33.353<br>36.749<br>33.353<br>35.749<br>36.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37.749<br>37 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>36.749<br>33.350<br>39.552<br>42.580<br>40.612<br>40.235<br>41.181<br>42.534<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40 |
| \$6 0.100   \$7 0.150   \$8 0.200 | No   Depth   Elev   Elev  | Aug of   Aug is   Aug   Aug   Ri   SBT   SBT   | 5 7 8 6 7 8 8 7 7 8 8 7 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 8 9 9 8 8 9 9 8 8 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 8 9 8 8 9 | pd<br>114.551<br>114.551<br>117.733<br>117.733<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>117 | bit   0.000    | tef 0.009 0.019 0.009 0.019 0.028 0.057 0.066 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.067 0.068 0.066 0.076 0. | isf  | 0 1.790  | bpf 3.974 6.455 9.434 11.728 114.663 11.462 11.462 11.462 11.4381 9.602 9.594 8.647 7.889 9.305 8.349 9.306 8.349 9.154 9.154 9.154 9.158 8.075 8.340 9.154 9.128 8.075 8.340 9.154 9.128 8.075 8.340 9.154 9.128 9.108 8.075 8.340 9.158 8.075 8.340 9.158 8.075 8.340 9.158 9.108 8.075 8.340 9.158 9.108 8.075 8.340 9.158 8.075 8.340 9.158 9.158 9.228 9.588 9.228 9.588 9.228 9.588 9.288 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 8.075 8.340 9.188 9.188  | ppf  | bpf 1850 1850 1850 1850 1850 1850 1850 1850  | byf    | 61 388 5527 55557 555 557 555 557 555 557 555 557 555 557 555 557 555 557 555 557 555 557 555 557  | \$\frac{1}{5}\$ \text{ is } \tex   | -0.000 -0 | -0.032 -0.002 -0   | 881.165 99.4851 99.4851 99.4851 99.4851 99.4851 99.4851 99.4851 99.585  | MPa 0.614 1.631 1.934 1.415 1.934 1.937 1.938 1.   | 905.847 907.84  | 2.366<br>2.103<br>2.126<br>1.966<br>1.890<br>2.178<br>2.078<br>2.471<br>2.575<br>2.495<br>2.451<br>2.535<br>2.416<br>2.451<br>2.535<br>2.416<br>2.452<br>2.073<br>2.472<br>2.073<br>2.073<br>2.073<br>2.073<br>2.073<br>2.073<br>2.073<br>2.073<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.074<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075<br>2.075 | 25.027 15.506 16.610 17.057 15.506 16.610 17.057 16.610 17.057 16.818 16.348 16   | 72.550 48.2785 48.428 47.9827 59.2795 62.795 62.795 62.795 62.005 62.005   | deg 0,000 0,   | -0.380   | 0.000<br>0.000<br>0.000<br>2.663<br>3.000<br>2.365<br>2.356<br>2.350<br>3.257<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357 | ut   | isf 0.414 0.000 0. | bill   | 10.000   | MPa   | 10.135<br>27.434<br>48.116<br>58.813<br>77.940<br>66.992<br>32.618<br>33.349<br>33.349<br>33.353<br>36.499<br>33.858<br>34.533<br>33.530<br>35.499<br>33.858<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40 | 10.135<br>27.434<br>48.116<br>59.813<br>74.781<br>77.940<br>66.992<br>73.345<br>40.810<br>32.618<br>33.349<br>36.749<br>33.350<br>39.552<br>42.580<br>40.612<br>40.235<br>41.181<br>42.534<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40.612<br>40 |
| 56 0.100 57 0.1506 58 0.200 58 0.200 59 0.2556 60 0.300 61 0.300 62 0.4506 60 0.4506 6  | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug ct   Aug fs   Aug N   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 9 7 9 8 8 8 7 9 8 9 7 9 8 8 8 7 9 8 9 7 9 8 8 8 7 9 8 9 7 9 8 8 8 7 9 8 9 7 9 8 8 8 7 9 8 9 9 7 9 8 8 8 7 9 8 9 9 7 9 8 8 8 7 9 8 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 7 9 9 9 7 9 8 8 8 9 7 9 8 8 8 9 7 9 9 9 7 9 8 8 8 9 7 9 9 9 7 9 8 8 8 9 7 9 9 9 7 9 8 8 8 9 9 7 9 8 8 8 9 9 7 9 8 8 8 9 9 7 9 8 8 8 9 9 7 9 8 8 8 9 9 7 9 8 8 8 9 9 9 9   | pd 114.551 114   | st   0.009   0.019   0.019   0.019   0.028   0.028   0.028   0.057   0 | tsf 0.009 0.009 0.009 0.009 0.009 0.008 0. | isf  | 0 1.700  | bpf   3974   397   | bpf  | pri 1880   3.508   1.808   3.5 | bgf bgf side side side side side side side side  | 61.388 51.587 51.585 51   | 5. Isf<br>16.74 6.213 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.  | -0.030 -0.000 -0 | -0.030 -0.000 -0   | 681.165.6<br>90.4851.6<br>90.4851.6<br>90.4851.6<br>90.6533.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.9<br>97.065.  | MPa 0.614 1.831 1.934 1.937 1.938 1.939 1.   | 905.847 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 2.96<br>2.96<br>2.16<br>2.16<br>2.16<br>2.16<br>2.16<br>2.16<br>2.16<br>2.1   | 25.027 2.057 2.000   | 72.562 48.2795 48.4228 49.7682   | deg. 0.000 33.421 33.421 33.421 37.465 38.470 38.471 38.47   | -0.380   | 0.000<br>0.000<br>0.000<br>2.683<br>3.000<br>2.385<br>2.386<br>3.257<br>3.327<br>3.327<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328<br>3.328 | tel 0.000 0. | 183  | 10 10 10 10 10 10 10 10 10 10 10 10 10 1   | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MPa   | 10.135<br>27.434<br>48.116<br>58.813<br>77.940<br>66.992<br>22.618<br>33.349<br>33.349<br>33.353<br>36.749<br>33.858<br>40.810<br>33.353<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40.810<br>40 | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>66.992<br>77.345<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>33.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34.346<br>34 |
| \$5 0.100   \$5 0.100   \$5 0.200 | Depth   Elev      | Aug at   Aug is   Aug   Aug   Ri   SBT   SBT   | S 7 8 8 7 9 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 8 8 7 8   | pdf 114.8519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.2519114.251914.2519114   | st   0.000     | 10 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.   | isf  | 0 1.700 0 1.70 | bpf   3974   397   | bpf  | ppf 1880 1380 1380 1380 1380 1380 1380 1380  | bgf   14   14   15   15   16   16   16   16   16   16  | 61.388 61.387 62.595.27 62.695.27 62   | 5, lsf 1674 0,213 1674 0,213 1675 1,277 2,2516 16,276 16,2   | -0.000 -0 | -0.039 -0.009 -0   | 881.195 994.891 994.89  | MPa 0.614 1.631 1.75 1.75 1.75 1.75 1.75 1.75 1.75 1.7   | 905.87 (97.67) 907.87  | 2.385 2.100 1.200   | 25.027 10.158 26.00 16.610 17.00 17.   | 72.559. 54.528. 54.528. 55.798. 56.2798. 56.467. 56.2598. 56.567. 56.2598. 56.567. 56.35888. 56.35888. 56.3588. 56.35888. 56.35888. 56.35888. 56.35888. 56.35888. 56.35888. 56.35888. 5   | deg 0,000 0,   | -0.380 -0.381 -0.382 -0   | 0.000<br>0.000<br>2.653<br>2.459<br>2.459<br>2.459<br>2.459<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357 | uf   | isf 0.414 0.000 0.414 0.000 0. | 10 000 000 000 000 000 000 000 000 000   | 10.000   | MPa 1013 1013 1013 1013 1013 1013 1013 101  | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>77.81<br>77.949<br>73.345<br>32.616<br>32.616<br>33.353<br>34.373<br>36.349<br>36.349<br>37.345<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38.530<br>38. | 10.135<br>27.434<br>48.116<br>59.813<br>77.940<br>59.813<br>77.940<br>59.813<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31.349<br>31 |
| \$5 0.100 5.50 5.50 5.50 5.50 5.50 5.50 5.  | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug at   Aug fs   A | 5 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 7 9 8 8 8 8   | pdf 114.551 11   | st   0.000     | 1 (100 m) (100 | isf   R  | 1,700   1,70   | bpf   3974   397   | bpf  | ppf 1880 1880 1880 1880 1880 1880 1880 188   | bgf   14   14   15   16   16   16   16   16   16   16  | 61.388   61.   | 5. Isf<br>1.674 6, 243 7, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 226 2, 277 2, 255 161 16, 276 2,   | -0.030 -0.000 -0 | -0.039 -0.009 -0   | 881.165 99.4851 199.265 199.26  | MPa (6.54) 1.631 1.75 1.75 1.75 1.75 1.75 1.75 1.75 1.7  | 905.847 97.04 97.0  | 2.395 2.100 1.200   | 25.027 10.158 26.00 16.610 17.00 17.   | 72.559. 54.528. 54.528. 54.528. 56.7982. 56.7982. 56.7982. 56.7983. 56.5983   | 6eg  | - 0.380  | 0.000<br>0.000<br>2.663<br>2.469<br>2.459<br>0.000<br>3.357<br>0.000<br>3.357<br>0.000<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357<br>3.357 | tel 0.000 0. | isf 0.414 0.000 0.416 0.000 0. | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 10 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | MF9   | 10.135<br>27.434<br>48.116<br>98.813<br>67.949<br>74.38<br>74.78<br>75.949<br>73.345<br>32.618<br>32.618<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>36.493<br>36.493<br>36.493<br>36.493<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.494<br>37.4 | 10.135<br>27.434<br>41.16<br>59.813<br>77.940<br>69.813<br>77.940<br>77.3345<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77.340<br>77 |
| \$5 0.100   \$5 0.100   \$5 0.200 | Depth   Elev      | Aug of   Aug fs   Aug   Aug Rf   SBT   SBT   | 5 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 8 7 7 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 9 8 8 8 9 8 9   | pdf 114.551 11   | st   0.000     | 1 (100) (100 | isf  | 1,700   1,70   | bpf   3974   397   | bpf  | ppf 1880 1880 1880 1880 1880 1880 1880 188   | bgf   14   14   15   16   16   16   16   16   16   16  | 81.388 8 95.527 6 95.555 95.55   | \$\ \begin{array}{cccccccccccccccccccccccccccccccccccc   | -0.030 -0.001 -0.002 -0 | -0.039 -0.006 -0.005 -0.006 -0   | 881.185 99.4851 1048.770 1048.  | MPa  | 905.847 94 94 95 95 95 95 95 95 95 95 95 95 95 95 95  | 2 196<br>2 196 | 25.027 (25.027   | 72.569 84.628 84.628 84.628 86.690 80.0000 80.00000 80.00000 80.00000 80.00000 80.00000000  | deg 0.000 33.421 33.421 37.086 6.000 37.145 38.409 38.119 38.409 38.119 38.409 38.119 38.409 38.119 38.409 38.119 38.409 38.119  | -0.380   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.0000  | tel 0.000 0. | isf 1 414 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5  | 5 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)  | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MF9   | 10.135<br>27.434<br>48.116<br>59.817<br>77.940<br>59.813<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30.548<br>30 | 10.135<br>27.434<br>48.116<br>99.813<br>77.590<br>99.813<br>77.590<br>99.813<br>77.590<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99 |
| \$6 0.100   \$6 0.200   \$7 0.200 | Depth   Elev   Elev   Elev   R   R   R   R   R   R   R   R   R  | Aug of   Aug   A | 5 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 8 7 7 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 9 8 8 8 9 8 9   | pdf 114.551514.5515114   | st   0.000     | 10 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.   | isf   R  | 1,700   1,70   | bpf   39.74  | bpf   10-17  | ppf 1880 1880 1880 1880 1880 1880 1880 188   | bgf bgf significant significan | 81.388 835.27 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9  | \$\frac{1}{5}\$ \text{ is } \tex   | -0.000 -0 | -0.030 -0.010 -0.000  | 881.108 90.4881 1048.709 1048.770 1048.  | MPa 0.614 1.631 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6  | 905.847 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9   | 2 196   2 196   1 196   | 25.027 (10.158 ) (10.159 )   | 72.592 84.828 87.982 88.490 0.000 0.   | 6eg  | - 0.380 - 0.042 - 0.042 - 0.042 - 0.042 - 0.042 - 0.042 - 0.043 - 0.042 - 0.04   | 0.000<br>0.000<br>0.000<br>2.663<br>2.365<br>2.439<br>0.000<br>3.570<br>3.350<br>0.000<br>3.570<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350<br>3.350 | tel 0.000 0. | isf 0.414 0.000 0.414 0.000 0. | sid  | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MF9   | 10.135<br>27.434<br>48.116<br>98.813<br>77.940<br>98.813<br>77.940<br>98.813<br>37.349<br>33.530<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.349<br>34.373<br>33.595<br>40.642<br>47.812<br>10.7266<br>46.867<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>17.946<br>1 | 10.135<br>27.434<br>48.116<br>99.813<br>77.590<br>99.813<br>77.590<br>99.813<br>77.590<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99.813<br>99 |
| 56   0.100  | Depth   Elev   Elev   | Aug of   Aug   A | S 7 8 8 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8 7 7 8   | pdf 114,551 11   | st   0.000     | 15   | Sef  | 1,700   1,70   | bpf   3974   397   | bpf   10-978   | ppf 1,850 pp | bgf   14   15   15   15   15   15   15   15  | 61.388   61.388   63.527   63.   | \$\ \begin{array}{cccccccccccccccccccccccccccccccccccc   | -0.000 -0 | -0.039   | 881.165 904.881 904.881 904.881 904.881 905.98  | MPa (0.614 1.631) (1.6   | 905.847 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9   | 2.985 2.465   | 25.027   25.   | 72.569 84.428 84.792 85.699 84.428 86.690 80.050 80   | deg  | -0.380   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.00000<br>0.000000  | tel 0.000 0. | isf   0.414   0.000   0.414   0.000   0.414   0.000    | Section   Sect   | 10 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | MF9   | 10.135<br>27.434<br>48.116<br>59.813<br>77.740<br>69.813<br>77.740<br>69.92<br>73.345<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33.340<br>33. | 10.135<br>27.434<br>41.16<br>38.813<br>38.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>39.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49.813<br>49. |

| A B C D E F G H I  | J K L   | M N  | O P<br>1 0454 0454 0  | Q R S  | T U<br>8 597 13 035  | V W X<br>5.269 7.989 48.408   | Y Z  | AA AB AC AD 0.008 -0.008 48.795 2.166  | AE AF AG AH<br>49.795 2.392 26.104 35.136  | Al AJ<br>M 243 -0 152  | AK AL AM AN AO AP AQ AR<br>3.615 81.125 0.000 0.000 0.000 3.259 32.587 32.587  |
|--|---|--|---|--|--|---|--|--|--|--|--|
| 101 2.350 7.710 -2.350 -7.710 22.435 0.315 -5.630 1.404 6  | 5 7 6   | 5 114.55   |   | .000 0.000 1.516   |  | 5.269 7.969 46.406<br>5.835 8.755 55.767  |  | 0.006 -0.006 48.795 2.166  |  |  | 3.515 81.125 0.000 0.000 0.000 3.259 32.587 32.587<br>3.378 88.933 0.000 0.000 0.000 3.783 37.831 37.831   |
| 103 2.450 8.038 -2.450 -8.038 27.766 0.297 -5.490 1.070 7  | 5 7 6   | 5 117.73   |   | .000 0.000 1.485   | 8.867 13.168   | 6.141 9.120 57.670  | 1.088 27.292 -0  | 0.006 -0.006 58.032 2.676  | 59.032 2.256 20.920 40.654   | 5.163 -0.143   | 3.309 91.914 0.000 0.000 0.000 3.950 39.504 39.504   |
| 104 2.500 8.202 -2.500 -8.202 27.835 0.339 -5.570 1.218 7  | 5 7 6   | 5 117.73   | 3 0.483 0.483 0   | .000 0.000 1.470   | 8.889 13.068   | 6.249 9.187 56.641  | 1.239 27.352 -6  | 0.006 -0.006 57.001 2.683  | 58.001 2.290 22.170 40.436   | 5.127 -0.153   | 3.321 92.481 0.000 0.000 0.000 3.921 39.205 39.205   |
| 105 2.550 8.366 -2.550 -8.366 20.914 0.282 -5.720 1.348 6<br>106 2.600 8.530 -2.600 -8.530 17.715 0.215 -5.580 1.214 6   | 5 7 6<br>5 6 6  | 5 114.55   | 1 0.493 0.493 0   | 000 0.000 1.456  | 8.014 11.668   | 4.980 7.251 41.471<br>4.297 6.198 34.301  | 1.381 20.422 -0  | 0.009 -0.009 41.834 2.021  | 42.834 2.423 27.353 31.962 3   | 33.714 -0.133  | 0.000 0.000 0.000 0.000 0.000 2.917 29.171 29.171<br>0.000 0.000 0.000 0.000 0.000 2.448 24.477 24.477   |
| 106 2.500 8.530 -2.500 -8.530 17.715 0.215 -5.580 1.214 6  | 5 6 6   |  | 1 0.502 0.502 0   | 000 0.000 1.442  | 6.766 9.791  | 3.918 5.598 31.229  | 0.896 15.965 -0  | 0.010 -0.010 34.649 1.714  | 32.365 2.420 27.219 0.000 3  | 2.876 -0.105   | 0.000 0.000 0.000 0.000 0.000 2.448 24.477 24.477  |
| 108 2.700 8.858 -2.700 -8.858 16.999 0.136 -1.830 0.800 6  | 5 6 6   | 5 114.55   | 1 0.521 0.521 0   | .000 0.000 1.416   | 6.514 9.224  | 3.995 5.657 31.651  | 0.825 16.478 -6  | 0.003 -0.003 31.761 1.634  | 32.761 2.394 26.174 0.000  | 32.591 -0.064  | 0.000 0.000 0.000 0.000 0.000 2.306 23.059 23.059  |
| 109 2.750 9.022 -2.750 -9.022 17.760 0.159 -1.590 0.895 6  | 5 6 6   |  |   | .000 0.000 1.403   |  | 4.194 5.885 32.509  | 0.923 17.230 -0  | 0.003 -0.003 32.603 1.706  | 33.603 2.404 26.590 0.000  | 32.758 -0.075  | 0.000 0.000 0.000 0.000 0.000 2.388 23.877 23.877  |
| 110 2.800 9.186 -2.800 -9.186 14.849 0.172 -1.820 1.158 6<br>111 2.850 9.350 -2.850 -9.350 12.789 0.145 -1.810 1.134 6   | 5 6 5   |  | 1 0.540 0.540 0<br>1 0.549 0.549 0  | .000 0.000 1.391   | 5.690 7.915<br>4.901 6.759   | 3.724 5.180 26.528<br>3.296 4.546 22.303  | 1.202 14.309 -   | 0.004 -0.004 26.633 1.428 :  | 27.633 2.533 32.163 0.000 3  | 31.861 -0.077  | 0.000 0.000 0.000 0.000 0.000 1.979 19.788 19.788<br>0.000 0.000 0.000 0.000 0.000 1.690 16.897 16.897   |
| 111 2.850 9.350 -2.850 -9.350 12.769 0.145 -1.810 1.134 6<br>112 2.900 9.514 -2.900 -9.514 9.905 0.135 -0.820 1.363 5  | 5 6 5<br>4 6 5  | 5 114.55   | 1 0.549 0.549 0   | 000 0.000 1.379  | 4.901 6.759  | 3.296 4.546 22.303<br>2.615 4.614 16.745  | 1.165 12.240 4   | 0.004 -0.005 22.406 1.231 .  | 23.406 2.589 34.803 0.000 .<br>17.790 2.636 37.143 0.000   | 0.000 0.000  | 0.000 0.000 0.000 0.000 0.000 1.690 16.897 16.897<br>0.000 0.000 0.623 0.000 5.381 1.298 12.976 16.745   |
| 113 2.950 9.678 -2.950 -9.678 9.009 0.177 1.450 1.965 5  | 4 5 5   | 4 114.55   | 1 0.568 0.568 0   | .000 0.000 1.356   | 4.315 5.852  | 2.548 4.391 14.872  | 2.097 8.441 0  | 0.005 0.005 14.793 0.859   | 15.793 2.767 44.107 0.000  | 0.000 0.000  | 0.000 0.000 0.563 0.006 4.496 1.170 11.704 14.872  |
| 114 3.000 9.842 -3.000 -9.842 10.735 0.257 2.340 2.394 5   | 4 6 5   |  | 0.077 0.077   | .000 0.000 1.345   |  | 3.014 5.160 17.605  | 2.530 10.158 0   | 0.007 0.007 17.478 1.021   | 18.478 2.754 43.368 0.000  | 0.000 0.000  | 0.000 0.000 0.677 0.009 5.812 1.383 13.832 17.605  |
| 115 3.050 10.006 -3.050 -10.006 15.290 0.343 3.280 2.243 5   | 4 6 5<br>5 7 6  |  | 1 0.587 0.587 0<br>1 0.596 0.596 0  | 000 0.000 1.334  | 7.324 9.772<br>8.490 11.238  | 3.982 6.818 25.076<br>5.394 7.140 36.190  | 2.333 14.704 0<br>1.586 21.561 0   | 0.007 0.007 24.901 1.455 :   | 25.902 2.609 35.821 0.000<br>37.051 2.470 29.381 30.886  | 0.000 0.000<br>k3 535 =0 131   | 0.000 0.000 0.981 0.013 10.000 1.954 19.544 25.076   |
| 116 3.100 10.170 -3.100 -10.170 22.157 0.342 2.050 1.544 6   | 5 7 6   |  | 3 0.606 0.596 0   | 000 0.000 1.324  | 9.663 12.690   | 6.736 8.845 48.992  | 1.096 29.655 0   | 0.004 0.004 36.051 2.115   | 49 909 2 271 21 459 39 593   | -0.101   | 3.368 101.956 0.000 0.000 0.000 2.810 28.096 28.096<br>3.368 101.956 0.000 0.000 0.000 3.807 38.069 38.069   |
| 118 3.200 10.499 -3.200 -10.499 32.693 0.400 -1.180 1.224 7  | 5 7 6   |  | 3 0.615 0.615 0   | .000 0.000 1.303   | 10.440 13.602  | 7.299 9.509 52.163  | 1.247 32.078 -0  | 0.001 -0.001 52.223 3.135  | 53.223 2.278 21.708 41.582   | 5.318 -0.145   | 3.258 106.541 0.000 0.000 0.000 4.080 40.805 40.805  |
| 119 3.250 10.663 -3.250 -10.663 31.306 0.350 -3.790 1.118 7  | 5 7 6   | 5 117.73   | 3 0.625 0.625 0   | .000 0.000 1.293   |  | 6.978 9.021 49.122  | 1.141 30.682 -   | 0.004 -0.004 49.311 3.010  | 50.311 2.274 21.571 40.117   |  | 3.339 104.569 0.000 0.000 0.000 3.877 38.771 38.771  |
| 120 3.300 10.827 -3.300 -10.827 31.200 0.406 -4.870 1.301 7<br>121 3.350 10.991 -3.350 -10.991 32.439 0.361 -6.560 1.113 7   | 5 7 6   | 5 117.73   | 3 0.635 0.635 0<br>3 0.644 0.644 0  | 000 0.000 1.283  | 9.963 12.781<br>10.359 13.189  | 7.081 9.084 48.190<br>7.204 9.173 49.377  | 1.328 30.565 -0  | 0.005 -0.005 48.430 3.003  | 49.430 2.316 23.108 39.799 3   |  | 3.356 104.763 0.000 0.000 0.000 3.834 38.344 38.344<br>3.306 107.303 0.000 0.000 0.000 3.957 39.567 39.567   |
| 122 3.400 11.155 -3.400 -11.155 27.331 0.455 -7.900 1.665 6  | 5 7 6   | 5 114.55   |   | .000 0.000 1.264   |  | 6.534 8.258 40.826  | 1.706 26.677 -0  | 0.009 -0.009 41.203 2.642  | 42.203 2.431 27.708 35.577 3   |  | 3.590 98.166 0.000 0.000 0.000 3.309 33.092 33.092   |
| 123 3.450 11.319 -3.450 -11.319 23.267 0.438 -8.500 1.882 6  | 5 7 6   |  |   | .000 0.000 1.255   |  | 5.808 7.288 34.102  |  |  |  |  | 0.000 0.000 0.000 0.000 0.000 2.797 27.972 27.972  |
| 124 3.500 11.483 -3.500 -11.483 28.674 0.481 -8.920 1.677 6  | 5 7 6<br>5 8 6  |  |   | .000 0.000 1.246<br>.000 0.000 1.237   |  | 6.824 8.503 41.655<br>9.291 11.497 62.172   | 1.718 28.002 -0<br>1.236 42.386 -0   |  | 43.069 2.421 27.294 36.547 3<br>63.627 2.197 18.889 48.005 3   |  | 3.537 101.459 0.000 0.000 0.000 3.423 34.231 34.231<br>2.910 125.378 0.000 0.000 0.000 5.105 51.053 51.053   |
| 125 3.550 11.64/ -3.550 -11.64/ 43.058 0.524 -9.950 1.21/ /<br>126 3.600 11.811 -3.600 -11.811 51.404 0.410 -10.560 0.798 8  | 5 8 6   | 6 120.01   | 3 0.682 0.682 C   | 000 0.000 1.237  | 13.753 17.018  | 9.291 11.497 62.172   | 1.236 42.386 4<br>0.808 50.713 d   | 0.007 -0.007 62.627 4.156  | 53.52/ 2.19/ 18.889 48.005 3   |  | 2.910 125.378 0.000 0.000 0.000 5.105 51.053 51.053 2.668 137.187 0.000 0.000 0.000 6.050 60.502 60.502  |
| 126 3.650 11.975 -3.650 -11.975 57.101 0.235 -11.060 0.412 8   | 6 8 6   | 6 120.91   | 5 0.702 0.702 0   | 000 0.000 1.229  | 13.676 16.683  | 10.756 13.120 80.403  | 0.417 56.399 -6  | 0.006 -0.006 80.895 5.503  | 81.895 1.848 5.000 55.681 3  |  | 2.541 145.162 0.000 0.000 0.000 6.673 66.730 66.730  |
| 128 3.700 12.139 -3.700 -12.139 57.997 0.210 -11.640 0.362 8   | 6 8 6   | 6 120.91   | 5 0.712 0.712 0   | .000 0.000 1.211   | 13.890 16.826  | 10.814 13.100 80.528  | 0.367 57.286 -0  | 0.006 -0.006 81.039 5.591  | 82.039 1.820 5.000 55.926 3  | 37.708 -0.083  | 2.531 146.831 0.000 0.000 0.000 6.730 67.304 67.304  |
| 129 3.750 12.303 -3.750 -12.303 59.864 0.275 -12.190 0.459 8   | 6 8 6   | 6 120.91   |   | 000 0.000 1.203  |  | 11.315 13.611 81.995<br>11.905 14.224 87.637  |  |  | 83.523 1.857 5.000 56.636 3<br>89.168 1.778 5.000 58.716 3   |  | 2.501 149.768 0.000 0.000 0.000 6.899 68.991 68.991<br>2.418 156.769 0.000 0.000 0.000 7.419 74.186 74.186   |
| 130 3.800 12.46/ -3.800 -12.46/ 64.812 0.230 -12.430 0.355 8   | 6 8 6   |  |   | .000 0.000 1.195   |  | 11.905 14.224 87.637<br>11.743 13.937 87.110  |  |  |  |  | 2.418 156.769 0.000 0.000 0.000 7.419 74.186 74.186<br>2.417 157.895 0.000 0.000 0.000 7.424 74.243 74.243   |
| 132 3.900 12.795 -3.900 -12.795 58.919 0.202 -12.910 0.343 8   | 6 8 6   | 6 120.91   | 5 0.751 0.751 0   | .000 0.000 1.179   | 14.111 16.636  | 10.965 12.926 77.450  | 0.347 58.168 -0  | 0.007 -0.007 77.987 5.683  | 78.987 1.814 5.000 55.601  | 37.654 -0.075  | 2.545 149.989 0.000 0.000 0.000 6.654 66.544 66.544  |
| 133 3.950 12.959 -3.950 -12.959 48.318 0.305 -13.190 0.631 8   | 6 8 6   |  |   | .000 0.000 1.171   |  | 9.698 11.358 62.496   | 0.641 47.557 -0  | 0.009 -0.009 63.037 4.668  | 64.037 2.017 13.413 49.726 3   | 6.675 -0.106   | 2.821 136.382 0.000 0.000 0.000 5.421 54.214 54.214  |
| 134 4.000 13.123 -4.000 -13.123 44.756 0.213 -13.520 0.476 8<br>135 4.050 13.287 -4.050 -13.287 40.747 0.217 -11.720 0.533 7   | 6 8 6   | 6 120.91   | 5 0.771 0.771 0   | 000 0.000 1.164  | 10.719 12.473<br>13.012 15.046   | 8.889 10.344 57.058<br>8.288 9.584 51.195   | 0.484 43.985 -0<br>0.543 39.966 -0   | 0.009 -0.010 57.606 4.328  | 58.605 1.990 5.000 47.346 3  | 6.278 -0.075   | 2.945 131.839 0.000 0.000 0.000 4.989 49.893 49.893<br>3.098 126.306 0.000 0.000 0.000 4.514 45.138 45.138   |
| 136 4.100 13.451 -4.100 -13.451 33.624 0.239 -12.100 0.711 7   | 5 7 6   | 5 117.73   | 3 0.781 0.781 0<br>3 0.791 0.791 0  | .000 0.000 1.156   |  | 7.227 8.306 41.545  |  | 0.009 -0.009 51.664 3.939 1<br>0.011 -0.012 42.024 3.257   | 52.664 2.051 14.375 44.475 3<br>43.023 2.188 18.590 38.792 3   |  | 3.098 126.306 0.000 0.000 0.000 4.514 45.138 45.138<br>3.414 114.852 0.000 0.000 0.000 3.702 37.020 37.020   |
| 137 4.150 13.615 -4.150 -13.615 27.645 0.258 -12.050 0.933 7   | 5 7 6   | 5 117.73   | 3 0.800 0.800 0   | .000 0.000 1.142   | 8.828 10.084   | 6.299 7.195 33.557  | 0.961 26.845 -0  | 0.014 -0.014 34.027 2.684  | 35.027 2.325 23.443 33.005   | 3.888 -0.082   | 3.735 103.304 0.000 0.000 0.000 3.025 30.252 30.252  |
| 138 4.200 13.779 -4.200 -13.779 23.775 0.227 -12.080 0.955 7   | 5 7 5   | 5 117.73   |   | 000 0.000 1.135  |  | 5.576 6.331 28.365<br>5.269 5.948 26.482  | 0.988 22.965 -6  | 0.016 -0.016 28.831 2.314 :  | 29.830 2.389 25.977 0.000 3  |  | 0.000 0.000 0.000 0.000 0.000 2.586 25.861 25.861<br>0.000 0.000 0.000 0.000 0.000 2.435 24.347 24.347   |
| 139 4.250 13.943 -4.250 -13.943 22.515 0.189 -11.960 0.839 7   | 5 7 5<br>5 7 5  |  |   | .000 0.000 1.129<br>.000 0.000 1.122   |  | 5.269 5.948 26.482<br>5.090 5.711 25.439  | 0.871 21.696 -0<br>0.754 21.088 -0   | 0.017 -0.017 20.000 2.100  | 27.557 2.555 25.755 0.565  |  | 0.000 0.000 0.000 0.000 0.000 2.435 24.347 24.347<br>0.000 0.000 0.000 0.000 0.000 2.356 23.561 23.561   |
| 141 4.350 14.271 -4.350 -14.271 19.987 0.198 -11.660 0.991 6   | 5 7 5   |  |   | .000 0.000 1.122   | 7.659 8.546  | 4.867 5.430 22.838  | 1.034 19.149 -6  | 0.017 -0.017 23.883 2.133  |  | 32.227 -0.052  | 0.000 0.000 0.000 0.000 0.000 2.136 21.364 21.364  |
| 142 4.400 14.436 -4.400 -14.436 19.348 0.225 -11.510 1.163 6   | 5 6 5   | 5 114.55   | 1 0.848 0.848 0   | .000 0.000 1.110   | 7.414 8.227  | 4.825 5.353 21.820  | 1.216 18.500 -0  | 0.019 -0.019 22.244 1.888  | 23.244 2.521 31.626 0.000  |  | 0.000 0.000 0.000 0.000 0.000 2.057 20.566 20.566  |
| 143 4.450 14.600 -4.450 -14.600 18.619 0.272 -11.310 1.461 6   | 4 6 5   | 5 114.55   |   | .000 0.000 1.103<br>.000 0.000 1.097   |  | 4.803 5.300 20.720<br>4.536 5.185 18.640  | 1.531 17.762 -0<br>1.845 16.154 -0   | 0.019 -0.020 21.132 1.818 :<br>0.020 -0.021 19.038 1.664   | 22.132 2.590 34.878 0.000 3<br>20.038 2.654 38.078 0.000 3   |  | 0.000 0.000 0.000 0.000 0.000 1.968 19.683 19.683<br>0.000 0.000 0.000 0.000 0.000 1.790 17.896 18.640   |
| 144 4.500 14.764 -4.500 -14.764 17.021 0.298 -11.050 1.751 6   | 4 6 5   | 4 114.55   |   | 000 0.000 1.097  |  | 4.536 5.185 18.640<br>4.709 5.340 19.698  |  | 0.020 -0.021 19.038 1.664 1<br>0.019 -0.020 20.085 1.770   |  |  | 0.000 0.000 0.000 0.000 0.000 1.790 17.896 18.640  |
| 146 4.600 15.092 -4.600 -15.092 19.153 0.266 -10.750 1.389 6   | 4 6 5   | 5 114.55   |   | .000 0.000 1.086   |  | 4.901 5.321 20.631  |  |  |  |  | 0.000 0.000 0.000 0.000 0.000 1.992 19.922 19.922  |
| 147 4.650 15.256 -4.650 -15.256 17.184 0.308 -10.560 1.792 6   | 4 6 5   |  |   | .000 0.000 1.080   |  | 4.614 5.102 18.204  |  |  |  |  | 0.000 0.000 0.000 0.000 0.000 1.778 17.780 18.204  |
| 148 4.700 15.420 -4.700 -15.420 13.735 0.283 -10.390 2.060 5   | 4 6 5   | 4 114.55   |   | 000 0.000 1.074  |  | 3.947 4.257 14.190<br>3.524 3.717 11.999  | 2.206 12.831 -0<br>2.171 10.963 -0   |  |  |  | 0.000 0.000 0.856 0.000 4.191 1.414 14.138 14.190<br>0.000 0.000 0.731 0.000 3.277 1.216 12.161 11.999   |
| 150 4.800 15.748 -4.800 -15.748 10.950 0.178 -9.690 1.626 5  | 4 6 4   | 4 114.55   |   | .000 0.000 1.069   |  | 3.231 3.346 10.863  |  |  |  |  | 0.000 0.000 0.751 0.000 3.277 1.216 12.161 11.999<br>0.000 0.000 0.669 0.000 2.844 1.116 11.155 10.863   |
| 151 4.850 15.912 -4.850 -15.912 9.692 0.138 -9.340 1.424 5   | 4 5 4   | 4 114.55   | 1 0.933 0.933 0   | .000 0.000 1.058   | 4.642 4.912  | 2.907 2.941 9.394   | 1.575 8.759 -0   | 0.030 -0.033 9.707 0.956   | 10.707 2.871 50.230 0.000  | 0.000 0.000  | 0.000 0.000 0.584 0.000 2.329 0.982 9.824 9.394  |
| 152 4.900 16.076 -4.900 -16.076 8.754 0.117 -8.990 1.337 5   | 4 5 4   | 4 114.55   |   | .000 0.000 1.053   |  | 2.682 2.653 8.295   | 1.498 7.812 -6   | 0.032 -0.036 8.593 0.866   | 9.593 2.908 52.491 0.000   |  | 0.000 0.000 0.521 0.000 1.976 0.883 8.829 8.295  |
| 153 4.950 16.240 -4.950 -16.240 6.926 0.122 -8.600 1.761 5<br>154 5.000 16.404 -5.000 -16.404 5.670 0.092 -7.990 1.623 4   | 3 5 3   | 3 114.55<br>3 114.55   |   | .000 0.000 1.048<br>.000 0.000 1.042   |  | 2.361 2.235 6.282<br>2.047 1.847 4.903  |  |  | 7.564 3.079 63.965 0.000<br>6.162 3.164 70.199 0.000   |  | 0.000 0.000 0.399 0.000 1.410 0.695 6.951 6.282<br>0.000 0.000 0.314 0.000 1.085 0.566 5.662 4.903   |
| 154 5.000 16.404 -5.000 -16.404 5.670 0.092 -7.990 1.623 4<br>155 5.050 16.568 -5.050 -16.568 4.913 0.077 -1.190 1.567 1   | 3 4 3   |  | 1 0.961 0.961 0   |  |  | 2.04/ 1.84/ 4.903   |  |  |  |  |  |
| 156 5.100 16.732 -5.100 -16.732 4.091 0.070 0.130 1.711 1  |   | 3 111.36   | 9 0.970 0.970 0   | 000 0 000 1 037  | 2 353 2 441  | 0.000 0.000 4.065   | 1 953 3 943 -0   | 0.008 -0.009 4.104 0.474   | 5 104 3 235 0 000 0 000  |  | 0.000 0.000 0.314 0.000 1.003 0.300 3.002 4.903  |
|  | 3 4 3   | 3 111.36<br>3 111.36   | 9 0.979 0.979 0   | .000 0.000 1.033   | 1.959 2.023  | 0.000 0.000 3.179   | 1.953 3.943 -0<br>2.249 3.112 0  | 0.001 0.001 3.174 0.392  | 4.174 3.358 0.000 0.000  | 0.000 0.000<br>0.000 0.000   | 0.000 0.000 0.263 0.000 0.914 0.488 4.882 4.065<br>0.000 0.000 0.208 0.001 0.758 0.405 4.047 3.179   |
| 157 5.150 16.896 -5.150 -16.896 3.826 0.049 0.960 1.281 1  | 3 4 3<br>3 4 3  | 3 111.36<br>3 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0  | .000 0.000 1.033<br>.000 0.000 1.028   | 1.959 2.023<br>1.833 1.884   | 0.000 0.000 3.179<br>0.000 0.000 2.872  | 2.249 3.112 0<br>1.727 2.838 0   | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.364   | 4.174 3.358 0.000 0.000<br>3.842 3.346 0.000 0.000   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0.000 0.000 0.263 0.000 0.914 0.488 4.882 4.065<br>0.000 0.000 0.208 0.0001 0.758 0.405 4.047 3.179<br>0.000 0.000 0.000 0.189 0.004 0.710 0.377 3.767 2.872   |
| 158 5.200 17.060 -5.200 -17.060 3.992 0.056 1.860 1.403 1  | 3 4 3   | 3 111.36<br>3 111.36<br>3 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0<br>9 0.998 0.998 0   | .000 0.000 1.033<br>.000 0.000 1.028<br>.000 0.000 1.023   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956  | 0.000 0.000 3.179<br>0.000 0.000 2.872<br>0.000 0.000 3.003   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0  | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.364<br>0.015 0.019 2.944 0.377  | 4.174 3.358 0.000 0.000<br>3.842 3.346 0.000 0.000<br>3.944 3.344 0.000 0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000         0.000         0.263         0.000         0.914         0.488         4.882         4.065           0.000         0.000         0.288         0.001         0.758         0.405         4.047         3.179           0.000         0.000         0.189         0.004         0.710         0.377         3.767         2.872           0.000         0.000         0.200         0.007         0.730         0.391         3.912         3.003  |
| 158 5.200 17.060 -5.200 -17.060 3.992 0.056 1.860 1.403 1<br>159 5.250 17.224 -5.250 -17.224 4.067 0.058 2.740 1.426 1   |   | 3 111.36<br>3 111.36<br>3 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0<br>9 0.998 0.998 0<br>9 1.007 1.007 0  | .000 0.000 1.033<br>.000 0.000 1.028<br>.000 0.000 1.023<br>.000 0.000 1.018   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984   | 0.000 0.000 3.179<br>0.000 0.000 2.872<br>0.000 0.000 3.003<br>0.000 0.000 3.041  | 2.249 3.112 0<br>1.727 2.838 0   | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.364<br>0.015 0.019 2.944 0.377<br>0.021 0.028 2.956 0.381   | 4.174 3.358 0.000 0.000<br>3.842 3.346 0.000 0.000<br>3.944 3.344 0.000 0.000<br>3.956 3.341 0.000 0.000   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000         0.000         0.283         0.000         0.914         0.488         4.882         4.085           0.000         0.000         0.208         0.001         0.758         0.405         4.047         3.179           0.000         0.000         0.189         0.004         0.710         0.377         3.767         2.872           0.000         0.000         0.200         0.007         0.730         0.391         3.912         3.003           0.000         0.000         0.204         0.011         0.736         0.397         3.968         3.041  |
| 158 5.200 17.060 -5.200 -17.060 3.992 0.056 1.860 1.403 1<br>159 5.250 17.224 -5.250 -17.224 4.067 0.058 2.740 1.426 1<br>160 5.300 17.388 -5.300 -17.388 4.094 0.059 3.820 1.441 1<br>161 5.350 17.552 -5.350 -17.552 3.979 0.049 4.570 1.232 1   | 3 4 3   | 3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0<br>9 0.988 0.998 0<br>9 1.007 1.007 0<br>9 1.016 1.016 0<br>9 1.025 1.025 0  | .000 0.000 1.033<br>.000 0.000 1.028<br>.000 0.000 1.023<br>.000 0.000 1.023<br>.000 0.000 1.018<br>.000 0.000 1.014   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.988<br>1.906 1.923   | 0.000         0.000         3.179           0.000         0.000         2.872           0.000         0.000         3.003           0.000         0.000         3.041           0.000         0.000         3.031           0.000         2.883   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.659 2.954 0   | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.364<br>0.019 2.944 0.377<br>0.021 0.028 2.956 0.381<br>0.029 0.039 2.914 0.381<br>0.036 0.048 2.744 0.367   | 4.174         3.358         0.000         0.000           3.842         3.346         0.000         0.000           3.944         3.344         0.000         0.000           3.956         3.341         0.000         0.000           3.914         3.345         0.000         0.000           3.914         3.345         0.000         0.000           3.914         3.337         0.000         0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0.000         0.000         0.258         0.000         0.914         0.488         4.882         0.085           0.000         0.000         0.288         0.001         0.758         0.089         4.017         3.178           0.000         0.000         0.188         0.004         0.710         0.377         3.767         2.872           0.000         0.000         0.200         0.007         0.730         0.381         3.912         3.003           0.000         0.000         0.024         0.711         0.736         0.397         3.988         3.041           0.000         0.000         0.208         0.015         0.735         0.389         3.978         3.031           0.000         0.000         0.208         0.015         0.735         0.389         3.978         3.041           0.000         0.000         0.792         0.015         0.712         0.388         3.847         2.883  |
| FSS         5.200         17.050         5.200         17.050         3.892         0.058         1.880         1.403         1           FSS         5.220         17.224         -5.260         17.224         0.058         2.240         1.465         1           FSS         17.224         -5.260         17.224         0.059         0.058         2.240         1.465         1           FSS         17.358         -5.300         -17.284         4.094         0.059         3.820         1.441         1           FSS         17.552         -5.350         -17.525         3.379         0.049         4.570         1.222         1           FSS         5.400         17.716         -4.00         1.77.16         -5.00         0.045         5.540         1.110         1   | 3 4 3   | 3 111.36<br>3 111.36<br>3 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0<br>9 0.998 0.998 0<br>9 1.007 1.007 0<br>9 1.016 1.016 0<br>9 1.025 1.025 0<br>9 1.034 1.034 0   | .000 0.000 1.033<br>.000 0.000 1.028<br>.000 0.000 1.023<br>.000 0.000 1.023<br>.000 0.000 1.014<br>.000 0.000 1.014<br>.000 0.000 1.009   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.966 1.923<br>1.942 1.952   | 0.000         0.000         3.179           0.000         0.000         2.872           0.000         0.000         3.003           0.000         0.000         3.041           0.000         0.000         3.031           0.000         0.000         2.883           0.000         0.000         2.922   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.659 2.954 0<br>1.490 3.021 0  | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.384<br>0.015 0.019 2.944 0.377<br>0.021 0.028 2.956 0.381<br>0.029 0.039 2.914 0.381<br>0.036 0.048 2.744 0.367<br>0.036 0.048 2.744 0.367  | 4.174         3.358         0.000         0.000           3.842         3.346         0.000         0.000           3.944         3.344         0.000         0.000           3.956         3.341         0.000         0.000           3.914         3.345         0.000         0.000           3.914         3.345         0.000         0.000           3.914         3.337         0.000         0.000           3.755         3.312         0.000         0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000 0.0000 0.268 0.000 0.914 0.488 4.882 4.068 0.000 0.000 0.0000 0.288 0.000 0.578 0.005 4.047 3.179 0.000 0.000 0.000 0.189 0.004 0.710 0.377 3.767 2.872 0.000 0.000 0.000 0.189 0.004 0.710 0.377 3.767 2.872 0.000 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.003 0.000 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.923 3.000 0.000 0.000 0.200 0.007 0.730 0.391 3.913 3.912 3.003 0.000 0.000 0.000 0.286 0.011 0.735 0.397 3.988 3.041 0.000 0.000 0.000 0.197 0.018 0.712 0.385 3.874 2.883 0.000 0.000 0.000 0.197 0.018 0.712 0.385 3.874 2.883 0.000 0.000 0.000 0.020 0.020 0.000 0.000 0.000 0.390 0.291 0.018 0.012 0.393 3.930 3.922 2.922  |
| 158 5.200 17.060 -5.200 -17.060 3.992 0.056 1.860 1.403 1<br>159 5.250 17.224 -5.250 -17.224 4.067 0.058 2.740 1.426 1<br>160 5.300 17.388 -5.300 -17.388 4.094 0.059 3.820 1.441 1<br>161 5.350 17.552 -5.350 -17.552 3.979 0.049 4.570 1.232 1   | 3 4 3   | 3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36   | 9 0.979 0.979 0<br>9 0.989 0.989 0.988 0<br>9 0.998 0.998 0.998 0<br>9 1.007 1.007 0<br>9 1.016 1.016 0<br>9 1.025 1.025 0<br>9 1.034 1.034 0<br>9 1.034 1.034 0  | .000 0.000 1.033<br>.000 0.000 1.028<br>.000 0.000 1.023<br>.000 0.000 1.023<br>.000 0.000 1.018<br>.000 0.000 1.014   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.964<br>1.961 1.988<br>1.906 1.923<br>1.942 1.952<br>1.902 1.902   | 0.000         0.000         3.179           0.000         0.000         2.872           0.000         0.000         3.003           0.000         0.000         3.041           0.000         0.000         3.031           0.000         2.883   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.659 2.954 0<br>1.503 2.927 0  | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.384<br>0.015 0.019 2.944 0.367<br>0.021 0.028 2.956 0.381<br>0.029 0.039 2.214 0.387<br>0.036 0.048 2.744 0.367<br>0.043 0.057 2.755 0.372<br>0.050 0.050 2.058 2.615 0.361   | 4.174 3.358 0.000 0.000<br>3.842 3.346 0.000 0.000<br>3.944 3.344 0.000 0.000<br>3.956 3.341 0.000 0.000<br>3.956 3.341 0.000 0.000<br>3.944 3.345 0.000 0.000<br>3.744 3.337 0.000 0.000<br>3.755 3.312 0.000 0.000<br>3.765 3.329 0.000 0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0.000         0.000         0.258         0.000         0.914         0.488         4.882         0.085           0.000         0.000         0.288         0.001         0.758         0.089         4.017         3.178           0.000         0.000         0.188         0.004         0.710         0.377         3.767         2.872           0.000         0.000         0.200         0.007         0.730         0.381         3.912         3.003           0.000         0.000         0.024         0.711         0.736         0.397         3.988         3.041           0.000         0.000         0.208         0.015         0.735         0.389         3.978         3.031           0.000         0.000         0.208         0.015         0.735         0.389         3.978         3.041           0.000         0.000         0.792         0.015         0.712         0.388         3.847         2.883  |
| 158         \$2.00         17/950         \$5.200         17/224         \$6.650         \$1.880         1.483         1           159         \$2.95         17/224         \$6.750         17/224         \$6.050         1.486         1           160         \$3.00         17/388         \$5.00         17/382         4.094         0.059         3.820         1.441         1           160         \$3.00         17/382         3.99         0.049         4.570         1.222         1           162         \$4.00         17/716         \$6.00         17/716         4.055         0.045         \$5.40         1.110         1           53         \$4.90         18/80         \$4.60         17/788         3.650         0.045         \$5.00         1.100         1           66         \$5.00         18/80         \$4.60         17/788         4.055         0.045         \$5.60         1.100         1           64         \$5.00         18/94         4.105         0.043         7.240         1.047         1           65         \$5.50         18/94         18.208         3.549         10.228         1         1         1         1         1  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3   | 3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 3 111.36<br>3 3 111.36<br>4 3 111.36<br>6 1 111.36<br>6 1 111.36   | 9 0.979 0.979 0<br>9 0.989 0.988 0<br>9 0.998 0.988 0<br>9 1.007 1.007 0<br>9 1.016 1.016 0<br>9 1.025 1.025 0<br>9 1.034 1.034 0<br>9 1.032 1.052 0<br>9 1.052 1.052 0   | 000 0.000 1.033<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.023<br>000 0.000 1.014<br>000 0.000 1.014<br>000 0.000 1.009<br>000 0.000 1.009<br>000 0.000 1.000<br>000 0.000 0.000   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.988<br>1.996 1.923<br>1.942 1.952<br>1.902 1.902<br>1.966 1.959  | 0.000 0.000 3.179 0.000 0.000 2.872 0.000 0.000 3.003 0.000 0.000 3.041 0.000 0.000 3.041 0.000 0.000 2.883 0.000 0.000 2.922 0.000 0.000 2.922 0.000 0.000 2.922 0.000 0.000 2.922 0.000 0.000 2.922   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.917 3.078 0<br>1.659 2.954 0<br>1.503 2.927 0<br>1.503 2.927 0<br>1.480 3.021 0<br>1.503 2.927 0<br>1.480 3.053 0   | 0.001 0.001 3.174 0.392<br>0.008 0.011 2.842 0.384<br>0.015 0.019 2.944 0.377<br>0.021 0.028 2.956 0.381<br>0.029 0.039 2.914 0.381<br>0.039 0.039 2.914 0.381<br>0.039 0.057 2.755 0.372<br>0.043 0.057 2.755 0.372<br>0.055 0.068 2.615 0.361<br>0.055 0.074 2.687 0.372   | 4.174 3.358 0.000 0.000<br>3.342 3.346 0.000 0.000<br>3.956 3.341 0.000 0.000<br>3.956 3.341 0.000 0.000<br>3.956 3.341 0.000 0.000<br>3.974 3.345 0.000 0.000<br>3.744 3.337 0.000 0.000<br>3.755 3.312 0.000 0.000<br>3.687 3.302 0.000 0.000<br>3.687 3.303 0.000 0.000   | 0.000 0.000<br>0.000 0.000   | 0.000 0.0000 0.280 0.0001 0.581 0.488 4.882 4.085 1879 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000000   |
| 158   5.200   17560   5.200   171560   3.922   0.056   1.860   1.403   1.925   5.200   171560   3.922   0.058   1.860   1.403   1.925   5.200   171524   5.250   171524   5.250   0.058   2.740   0.058   2.740   1.426   1.60   5.300   17.388   5.300   17.288   4.094   0.059   3.820   1.441   1.925   5.300   17.582   3.300   17.583   4.094   0.059   3.820   1.441   1.925   1 | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3<br>3 3 3 3<br>3 3 3 3   | 3 111.36<br>3 111.38<br>3 111.38<br>3 111.36<br>3 111.36<br>3 111.36<br>1 1 111.36<br>1 1 111.36<br>1 1 111.36   | 9 0.979 0.979 0.989 0.989 0.989 0.989 0.989 0.988 0.989 0.989 0.988 0.98  | 000 0.000 1.033<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.018<br>000 0.000 1.014<br>000 0.000 1.001<br>000 0.000 1.005<br>000 0.000 1.005<br>000 0.000 1.005<br>000 0.000 0.005<br>000 0.000 0.938   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.988<br>1.906 1.923<br>1.942 1.952<br>1.942 1.952<br>1.966 1.959<br>1.888 1.872<br>1.895 1.872  | 0.000 0.000 3.179<br>0.000 0.000 2.872<br>0.000 0.000 3.003<br>0.000 0.000 3.03<br>0.000 0.000 3.041<br>0.000 0.000 2.883<br>0.000 0.000 2.883<br>0.000 0.000 2.922<br>0.000 0.000 2.932<br>0.000 0.000 2.932<br>0.000 0.000 2.932<br>0.000 0.000 2.932   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.559 2.954 0<br>1.450 3.021 0<br>1.503 2.927 0<br>1.408 3.053 0<br>1.458 2.880 0   | 0.601 0.001 3.174 0.382 0.505 0.001 3.001 0.364 0.364 0.364 0.375 0.364 0.375 0.001  | 4.174 3.388 0.000 0.000 3.364 3.344 0.000 0.000 3.364 3.344 0.000 0.000 3.374 3.385 0.000 0.000 0.000 3.375 3.375 3.327 0.000 0.000 3.055 3.375 3.329 0.000 0.000 3.361 3.329 0.000 0.000 3.373 0.000 0.000 3.373 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 0.000 3.373 3.377 0.000  | 0.000  | 0.000 0.000 0.288 0.000 0.914 0.488 4.882 4.085 0.000 0.000 0.000 0.288 0.000 0.914 0.488 4.882 4.085 0.000 0.000 0.000 0.288 0.000 0.758 0.009 4.047 3.189 0.000 0.000 0.000 0.189 0.0004 0.710 0.377 3.787 2.872 3.000 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.020 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.020 0.000 0.000 0.200 0.007 0.730 0.391 3.913 3.912 3.000 0.000 0.000 0.200 0.007 0.730 0.391 3.913 3.912 3.000 0.000 0.000 0.206 0.011 0.758 0.397 3.938 3.347 3.031 0.000 0.000 0.000 0.286 0.015 0.755 0.398 3.397 3.391 3.011 0.000 0.000 0.000 0.190 0.018 0.712 0.385 3.847 2.83 3.910 0.000 0.000 0.000 0.190 0.000 0.000 0.190 0.000 0.000 0.919 0.018 0.715 0.392 3.930 3.930 2.822 0.000 0.000 0.000 0.190 0.026 0.000 0.000 0.390 3.000 3.930 3.000 2.820 0.000 0.000 0.000 0.190 0.000 0.000 0.190 0.000 0.000 0.394 0.025 0.715 0.392 3.917 2.822 0.000 0.000 0.000 0.192 0.032 0.000 0.715 0.393 3.917 2.822 0.000 0.000 0.000 0.192 0.032 0.000 0.715 0.394 3.745 2.742 2.742 2.742 2.742 2.742 2.743 2.743 2.743 2.743 2.744  |
| 158         2200         17060         2500         171500         3992         0.058         1,803         1,438         1           159         5250         171224         4,555         0.058         2740         1,436         1           160         5300         17388         5,500         1,7128         4,094         0,059         3,820         1,441         1           162         5300         17582         3,590         1,7152         3,590         0,049         4,570         1,222         1           162         5400         17,716         4,600         1,7176         4,055         0,045         5,500         1,100         1           163         5450         18,904         4,105         0,044         6,400         1,100         1           164         5500         18,044         4,105         0,045         2,70         1,047         1           165         5500         18,044         4,105         0,042         170         1,047         1           164         5500         18,024         1,826         3,449         1,042         170         1,047         1           165         5500         18,024<  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3  | 3 111.36<br>3 111.38<br>3 111.35<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36   | 8 0.979 0.978 c<br>9 0.989 0.989 c<br>9 0.988 0.988 c<br>9 1.007 1.007 c<br>9 1.007 1.007 c<br>9 1.025 1.025 c<br>9 1.033 1.034 c<br>9 1.034 1.034 c<br>9 1.032 1.052 c<br>9 1.052 1.052 c  | 000 0.000 1.033<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.014<br>000 0.000 1.014<br>000 0.000 1.004<br>000 0.000 1.005<br>000 0.000 1.005<br>000 0.000 0.932<br>000 0.000 0.932<br>000 0.000 0.932   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.998<br>1.906 1.923<br>1.902 1.902<br>1.902 1.902<br>1.888 1.872<br>1.888 1.872<br>1.895 1.872  | 0.000 0.000 3.79<br>0.000 0.000 3.79<br>0.000 0.000 3.003<br>0.000 0.000 3.003<br>0.000 0.000 3.003<br>0.000 0.000 2.883<br>0.000 0.000 2.92<br>0.000 0.000 2.92<br>0.000 0.000 2.902<br>0.000 0.000 2.902<br>0.000 0.000 2.902<br>0.000 0.000 2.902  | 2249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.490 3.021 0<br>1.490 3.021 0<br>1.490 3.033 0<br>1.458 2.880 0<br>1.698 2.880 0  | 0.001 0.001 3.174 0.382 0.006 0.008 0.011 2.842 0.384 0.008 0.011 2.842 0.384 0.015 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.008 0.0016 0.002 0.002 0.003 0.029 0.039 0.291 0.381 0.029 0.0039 0.291 0.381 0.009 0.005 0.006 0.00 | 4.174 3.388 0.000 0.000<br>3.842 3.346 0.000 0.000<br>3.944 3.344 0.000 0.000<br>3.958 3.341 0.000 0.000<br>3.974 3.345 0.000 0.000<br>3.974 3.377 0.000 0.000<br>3.755 3.312 0.000 0.000<br>3.887 3.304 0.000 0.000<br>3.887 3.304 0.000 0.000<br>3.887 3.304 0.000 0.000<br>3.433 3.367 0.000 0.000<br>3.433 3.367 0.000 0.000   | 0.000  | 0.000 0.0000 0.280 0.0001 0.514 0.488 4.882 4.085 1.000  |
| 158   5.200   17560   5.200   171560   3.922   0.056   1.860   1.403   1.925   5.200   171560   3.922   0.058   1.860   1.403   1.925   5.200   171524   5.250   171524   5.250   0.058   2.740   0.058   2.740   1.426   1.60   5.300   17.388   5.300   17.288   4.094   0.059   3.820   1.441   1.925   5.300   17.582   3.300   17.583   4.094   0.059   3.820   1.441   1.925   1 | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3<br>3 3 3 3<br>3 3 3 3   | 3 111.36<br>3 111.38<br>3 111.35<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36   | 0.979   0.979   0.979   0.979   0.979   0.998   0.99    | 000 0.000 1.033<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.028<br>000 0.000 1.018<br>000 0.000 1.014<br>000 0.000 1.001<br>000 0.000 1.005<br>000 0.000 1.005<br>000 0.000 1.005<br>000 0.000 0.005<br>000 0.000 0.938   | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.998<br>1.906 1.923<br>1.902 1.902<br>1.902 1.902<br>1.888 1.872<br>1.888 1.872<br>1.895 1.872  | 0.000 0.000 3.179<br>0.000 0.000 2.872<br>0.000 0.000 3.003<br>0.000 0.000 3.03<br>0.000 0.000 3.041<br>0.000 0.000 2.883<br>0.000 0.000 2.883<br>0.000 0.000 2.922<br>0.000 0.000 2.932<br>0.000 0.000 2.932<br>0.000 0.000 2.932<br>0.000 0.000 2.932   | 2.249 3.112 0<br>1.727 2.838 0<br>1.870 2.994 0<br>1.895 3.061 0<br>1.917 3.078 0<br>1.559 2.954 0<br>1.450 3.021 0<br>1.503 2.927 0<br>1.408 3.053 0<br>1.458 2.880 0   | 0.001 0.001 3.174 0.382 0.006 0.008 0.011 2.842 0.384 0.008 0.011 2.842 0.384 0.015 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.008 0.0016 0.002 0.002 0.003 0.029 0.039 0.291 0.381 0.029 0.0039 0.291 0.381 0.009 0.005 0.006 0.00 | 4.174 3.388 0.000 0.000 3.364 3.344 0.000 0.000 3.364 3.344 0.000 0.000 3.374 3.385 0.000 0.000 0.000 3.375 3.375 3.327 0.000 0.000 3.055 3.375 3.329 0.000 0.000 3.361 3.329 0.000 0.000 3.373 0.000 0.000 3.373 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 3.373 3.377 0.000 0.000 0.000 0.000 3.373 3.377 0.000  | 0.000  | 0.000 0.000 0.288 0.000 0.914 0.488 4.882 4.085 0.000 0.000 0.000 0.288 0.000 0.914 0.488 4.882 4.085 0.000 0.000 0.000 0.288 0.000 0.758 0.009 4.047 3.189 0.000 0.000 0.000 0.189 0.0004 0.710 0.377 3.787 2.872 3.000 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.020 0.000 0.000 0.200 0.007 0.730 0.391 3.912 3.020 0.000 0.000 0.200 0.007 0.730 0.391 3.913 3.912 3.000 0.000 0.000 0.200 0.007 0.730 0.391 3.913 3.912 3.000 0.000 0.000 0.206 0.011 0.758 0.397 3.938 3.347 3.031 0.000 0.000 0.000 0.286 0.015 0.755 0.398 3.397 3.391 3.011 0.000 0.000 0.000 0.190 0.018 0.712 0.385 3.847 2.83 3.910 0.000 0.000 0.000 0.190 0.000 0.000 0.190 0.000 0.000 0.919 0.018 0.715 0.392 3.930 3.930 2.822 0.000 0.000 0.000 0.190 0.026 0.000 0.000 0.390 3.000 3.930 3.000 2.820 0.000 0.000 0.000 0.190 0.000 0.000 0.190 0.000 0.000 0.394 0.025 0.715 0.392 3.917 2.822 0.000 0.000 0.000 0.192 0.032 0.000 0.715 0.393 3.917 2.822 0.000 0.000 0.000 0.192 0.032 0.000 0.715 0.394 3.745 2.742 2.742 2.742 2.742 2.742 2.743 2.743 2.743 2.743 2.744  |
| 195   5200   17590   5.200   17590   3.992   0.055   1880   1.433   1.995   5290   17524   5.250   177.224   4.055   0.058   2740   1.425   1. | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3  | 3 111.36<br>3 111.38<br>3 111.35<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36   | \$ 0.399 0.399 0.399 0.399 0.38 | 000 0.000 1.033 000 0.000 1.038 000 0.000 1.038 000 0.000 1.038 000 0.000 1.038 000 0.000 1.018 000 0.000 1.001 000 0.000 1.005 0.000 0.000 1.005 0.000 0.000 0.005 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.997  | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.954<br>1.951 1.958<br>1.951 1.958<br>1.956 1.923<br>1.942 1.952<br>1.956 1.952<br>1.956 1.952<br>1.956 1.959<br>1.956 1.959<br>1.888 1.872<br>1.884 1.951<br>1.884 1.857<br>1.880 1.837<br>1.880 1.837  | 0000 0 0000 3190 2872 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000   | 2.249 3.112 0 1.727 2.838 2 1.870 2.994 0 1.895 3.061 0 1.659 2.954 0 1.659 2.954 0 1.450 3.051 0 1.460 3.053 0 1.400 3.053 0 1.508 2.880 0 1.508 2.880 0 1.508 2.880 0 1.508 2.880 0 1.508 2.871 0 1.508 2.871 0  | 0.001 0.001 3.174 0.382 0.000 0.001 3.174 0.382 0.006 0.001 2.842 0.354 0.0015 0.015 0.015 0.015 0.015 0.001 | 4.714 3.388 0.000 0.000 3.344 3.346 0.000 0.000 3.344 3.344 0.000 0.000 3.356 3.341 0.000 0.000 3.376 3.365 3.341 0.000 0.000 3.376 3.374 3.385 0.000 0.000 3.3744 3.337 0.000 0.000 3.376 3.344 3.337 0.000 0.000 3.376 3.344 3.337 0.000 0.000 3.376 3.367 3.338 0.000 0.000 3.365 0.000 0.000 3.365 0.000 0.000 0.000 3.365 3.328 0.000 0.000 0.000 3.367 3.331 0.000 0.000 3.348 3.332 0.000 0.000 3.348 3.332 0.000 0.000 3.348 3.332 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 3.348 3.348 0.000 0.000 0.000 3.348 3.348 0.000 0.000 0.000 3.348 3.348 0.000 0.000 0.000 3.348 3.348 0.000 0.000 0.000 3.348 0.000 0.000 0.000 3.348 3.348 0.000 0.000 0.000 3.348 0.000 0.000 0.000 0.000 3.348 3.348 0.000 0.000 0.000 0.000 3.348 0.000 | 0.000 0.0 | 0.000 0.0000 0.280 0.0001 0.914 0.488 4.882 4.085 1.95 0.0000 0.0000 0.0000 0.280 0.0001 0.758 0.405 4.6474 3.175 0.0000 0.0000 0.0000 0.188 0.0001 0.758 0.405 4.6474 3.175 0.0000 0.0000 0.188 0.0004 0.710 0.377 3.787 2.872 0.0000 0.0000 0.189 0.0004 0.710 0.377 3.787 3.7872 3.782 0.0000 0.0000 0.0000 0.180 0.0004 0.710 0.730 0.381 3.3912 3.302 0.0000 0.0000 0.2004 0.017 0.730 0.381 3.3912 3.392 3.0000 0.0000 0.0000 0.2004 0.017 0.730 0.381 3.3873 3.392 3.0000 0.0000 0.0000 0.199 0.0100 0.7712 0.383 3.3871 2.883 0.0000 0.0000 0.0000 0.199 0.0000 0.7712 0.0000 3.393 3.3857 2.820 0.0000 0.0000 0.0000 0.199 0.0000 0.0000 0.0000 3.393 3.395 2.220 0.0000 0.0000 0.0000 0.199 0.0000 0.0000 0.7915 0.0000 0.0000 3.3950 3.3950 2.2207 0.0000 0.0000 0.0000 0.199 0.0000 0.0000 0.7914 0.7010 0.0000 0.7010 3.3950 3.3950 2.2207 0.0000 0.0000 0.0000 0.199 0.0000 0.0000 0.7914 0.3900 0.7914 0.3900 3.3951 3.3952 2.2207 0.0000 0.0000 0.0000 0.199 0.0000 0.0000 0.0000 0.3900 0.0000 0.0000 0.3900 0.0000 0.0000 0.3900 0.0000 0.0000 0.3900 0.0000 0.0000 0.3900 0.0000 0.0000 0.3900 0.0000 0.0000 0.0000 0.3900 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000 |
| 158         2200         17980         2.500         17750         3992         0.058         1880         1.438         1           159         5250         17724         4.555         0.058         2740         1.436         1           160         5300         17388         3.500         177384         0.059         3820         1.441         1           162         5300         17582         3.590         17752         3.950         0.049         4.570         1.222         1           162         5400         17716         3.600         17776         0.059         5.560         1.110         1  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3  | 3 111.36<br>3 111.38<br>3 111.35<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36   | 8 0.579 0.579 0.579 0.579 0.579 0.579 0.588 0.58  | 000 0.000 1.033 000 0.000 1.023 000 0.000 1.028 000 0.000 1.028 000 0.000 1.014 000 0.000 1.014 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985  | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.988<br>1.906 1.923<br>1.902 1.902<br>1.902 1.902<br>1.902 1.902<br>1.902 1.902<br>1.903 1.898<br>1.888 1.872<br>1.896 1.873<br>1.896 1.873<br>1.896 1.873<br>1.896 1.873  | 0000 0.000 3.1% 0000 0.000 3.1% 0000 0.000 2.872 0.000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 0.283 0.000 0.000 2.283 0.000 0.000 2.292 0.000 0.000 2.200  | 2.249 3.112 0 1.727 2.838 0 1.727 2.838 0 1.870 2.994 0 1.895 3.061 1 1.897 2.994 0 1.895 2.954 0 1.503 2.927 0 1.503 2.929 0  | 0.691 0.091 3.174 0.392 0.096 0.011 2.842 0.354 0.354 0.318 0.019 2.944 0.377 0.382 0.018 0.019 2.944 0.377 0.381 0.019 2.945 0.381 0.025 0.023 0.023 0.023 0.023 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.039 0.059  | 4.174 3.588 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.346 0.000 0.000 3.347 0.000 0.000 3.347 0.000 0.000 3.347 0.000 0.000 3.348 0.000 0.000 0.000 3.615 3.289 0.000 0.000 0.000 3.689 3.346 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 0.000 3.349 0.000  | 0.000  | 0.000 0.0000 0.280 0.0001 0.914 0.488 4.882 4.085 10000 10000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 10000 10000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 10000 10000 0.0000 0.180 0.0000 0.750 0.0000 0.0000 0.3000 0.180 0.0001 0.750 0.037 3.75 2.872 2.872 0.0000 0.0000 0.0000 0.2000 0.0000 0.750 0.750 0.391 3.912 2.0000 0.0000 0.0000 0.286 0.011 0.758 0.397 3.598 3.091 3.0000 0.0000 0.0000 0.286 0.011 0.758 0.395 3.598 3.091 0.0000 0.0000 0.2000 0.026 0.015 0.755 0.388 3.397 3.3001 0.0000 0.0000 0.190 0.018 0.012 0.758 0.389 3.397 2.883 0.001 0.000 0.0000 0.190 0.018 0.012 0.0000 0.018 0.012 0.385 3.0000 3.3000 2.202 0.000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.190 0.0000 0.190 0.0000 0.3900 0.3900 0.3900 0.3900 0.2000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0 |
| 189   5.200   17,090   5.200   17,090   3.992   0.056   1,890   1,403   1,995   5.290   17,224   5.250   17,224   5.250   0.058   2740   0.058   2740   1,425   1,995  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3  | 3 111.36<br>3 111.38<br>3 111.35<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36<br>1 111.36   | 8 0.579 0.579 0.579 0.579 0.579 0.579 0.588 0.58  | 000 0.000 1.033 000 0.000 1.038 000 0.000 1.038 000 0.000 1.038 000 0.000 1.038 000 0.000 1.018 000 0.000 1.001 000 0.000 1.005 0.000 0.000 1.005 0.000 0.000 0.005 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.996 0.000 0.000 0.997  | 1.959 2.023<br>1.834 1.834<br>1.912 1.986<br>1.948 1.984<br>1.961 1.988<br>1.966 1.923<br>1.962 1.962<br>1.962 1.962<br>1.962 1.962<br>1.963 1.872<br>1.964 1.961<br>1.880 1.832<br>1.880 1.832<br>1.895 1.895<br>1.888 1.872<br>1.984 1.961<br>1.895 1.895<br>1.895 1.895<br>1.895 1.998  | 0000 0.000 3.190 0000 0.000 2.872 0000 0.000 3.000 0000 0.000 3.001 0000 0.000 3.001 0000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 2.882 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883 0.000 0.000 2.883   | 2.249 3.112 2 2.349 3.112 2 2.348 6.1 1.277 2.284 6.1 1.870 2.294 6.1 1.895 3.061 0.1 1.895 3.061 0.1 1.699 2.564 0.3 1.699 2.564 0.3 1.408 3.053 0.3 1.458 2.880 0.3 1.458 2.880 0.3 1.458 2.880 0.3 1.557 3.063 0.3 1.558 2.871 0.3 1.598 2.827 0.3 1.598 2.827 0.3 1.598 2.2871 0.3 1.598 2.3871 0.3 1.598 2.3881 0.3 | 0.001 0.001 3.174 0.382 0.000 0.000 0.001 3.174 0.382 0.000 0.001 0.011 2.842 0.000 0.001 0.011 0.011 0.011 0.011 0.011 0.001  | 4.714 3.388 0.000 0.000 3.344 3.346 0.000 0.000 3.344 3.344 0.000 0.000 3.356 3.341 0.000 0.000 3.376 3.365 3.341 0.000 0.000 3.376 3.374 3.385 0.000 0.000 3.3744 3.337 0.000 0.000 3.376 3.342 0.000 0.000 0.000 3.376 3.367 3.332 0.000 0.000 3.365 3.342 0.000 0.000 0.000 3.365 3.367 3.331 0.000 0.000 3.367 3.331 0.000 0.000 3.343 3.343 3.340 0.000 0.000 3.343 3.343 3.340 0.000 0.000 3.345 3.343 3.340 0.000 0.000 3.328 3.344 0.000 0.000 3.328 3.344 0.000 0.000 3.328 3.344 0.000 0.000 3.328 3.345 3.331 0.000 0.000 3.328 3.345 3.331 0.000 0.000 3.327 3.328 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 0.000 3.327 3.338 0.000 0.000 0.000 0.000 3.327 3.338 0.000 | 0.000  | 0.000  |
| 158   5.200   17,090   5.200   17,090   3.992   0.056   1,890   1,403   1,995   5.290   17,224   5.250   17,224   5.250   0.058   2740   0.058   2740   1,426   1,426   1,605   1,605   1,426   1,605   1,605   1,405   1,605   1,605   1,405   1,605   1,605   1,405   1,605  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3  | 3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>1 11133<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138   | 8 0.579 0.579 0.579 0.579 0.579 0.579 0.588 0.58  | 000 0.000 1.033 000 0.000 1.023 000 0.000 1.028 000 0.000 1.028 000 0.000 1.014 000 0.000 1.014 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 1.005 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985 000 0.000 0.985  | 1.959 2.023<br>1.833 1.884<br>1.912 1.956<br>1.948 1.984<br>1.961 1.988<br>1.906 1.923<br>1.902 1.902<br>1.902 1.902<br>1.902 1.902<br>1.902 1.902<br>1.903 1.898<br>1.888 1.872<br>1.896 1.873<br>1.896 1.873<br>1.896 1.873<br>1.896 1.873  | 0000 0.000 3.1% 0000 0.000 3.1% 0000 0.000 2.872 0.000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 0.283 0.000 0.000 2.283 0.000 0.000 2.292 0.000 0.000 2.200  | 2.249 3.112 0 1.727 2.838 0 1.727 2.838 0 1.870 2.994 0 1.895 3.061 1 1.897 2.994 0 1.895 2.954 0 1.503 2.927 0 1.503 2.929 0  | 0.691 0.091 3.174 0.392 0.095 0.096 0.011 2.842 0.354 0.354 0.015 0.019 2.944 0.377 0.002 0.021 0.028 0.0011 2.944 0.377 0.0021 0.028 0.003 0.029 0.003 0.00 | 4.174 3.588 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.346 0.000 0.000 3.347 0.000 0.000 3.347 0.000 0.000 3.347 0.000 0.000 3.348 0.000 0.000 0.000 3.615 3.289 0.000 0.000 0.000 3.689 3.346 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.473 0.358 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 3.349 0.000 0.000 0.000 0.000 3.349 0.000  | 0.000  | 0.000 0.0000 0.280 0.0001 0.914 0.488 4.882 4.085 10000 10000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 10000 10000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 10000 10000 0.0000 0.180 0.0000 0.750 0.0000 0.0000 0.3000 0.180 0.0001 0.750 0.037 3.75 2.872 2.872 0.0000 0.0000 0.0000 0.2000 0.0000 0.750 0.750 0.391 3.912 2.0000 0.0000 0.0000 0.286 0.011 0.758 0.397 3.598 3.091 3.0000 0.0000 0.0000 0.286 0.011 0.758 0.395 3.598 3.091 0.0000 0.0000 0.2000 0.026 0.015 0.755 0.388 3.397 3.3001 0.0000 0.0000 0.190 0.018 0.012 0.758 0.389 3.397 2.883 0.001 0.000 0.0000 0.190 0.018 0.012 0.0000 0.018 0.012 0.385 3.0000 3.3000 2.202 0.000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.190 0.0000 0.190 0.0000 0.3900 0.3900 0.3900 0.3900 0.2000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0 |
| 158   5.200   17,500   5.200   17,500   3.992   0.056   1,860   1,403   1,905   5.200   17,224   5.250   17,224   5.250   0.058   2,740   0.058   2,740   1,426   1,600   1,426   1,600   17,224   5.250   17,724   4.095   0.059   3,820   1,441   1,600   1,600   1,600   1,7552   3,300   17,7552   3,900   0.069   4,570   1,222   1,600   17,716   4,600   1,7755   3,790   0.069   5,540   1,100   1,222   1,600   17,716   4,600   1,000   1,540   1,10 | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3    | 3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>1 11133<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138<br>1 11138   | 9 0.579 0.599 0.599 0.598 0.589 0.58  | 000  | 1898 2020<br>1833 1894<br>1812 1995<br>1818 1996<br>1861 1988<br>1861 1988<br>1861 1982<br>1862 1982<br>1862 1982<br>1864 1982<br>1865 1875<br>1865 1877<br>1865 1877<br>1866 1887<br>1866 1887<br>1870 1989<br>1870 1989   | 0000 0 0000 3.192 0000 1 0000 3.000 0000 1 0000 2.872 0000 1 0000 3.000 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.893 0000 0 0000 2.982 0000 0 0000 2.982 0000 0 0000 2.982 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893   | 2248 3112 312 312 312 312 312 312 312 312 31   | 0.001 0.001 3.174 0.392 0.000 0.001 3.174 0.392 0.005 0.001 2.542 0.354 0.0015 0.015 0.016 0.001 | 4.774 3.588 0.000 0.000 3.844 3.546 0.000 0.000 3.844 3.546 0.000 0.000 3.843 0.000 0.000 3.844 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000  | 0 000 0 0 000 0 000 0 0 0 0 0 0 0 0 0  | 0.000 0.0000 0.286 0.0001 0.514 0.488 4.882 4.085 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.187 0.000 0.000 0.0 |
| 155   5.200   17,050   5.200   17,050   3.922   0.055   1,860   1,403   1,505   5.250   17,224   5.255   17,224   5.255   0.055   27,200   1,425   1,425   1,505   1,505   1,505   1,425   1,505   1,5 | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3    | 3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>1 11138   | \$ 0.979 0.979 0.979 0.979 0.979 0.989 0.99 | 000 1000 1030 1030 1030 1030 1030 1030   | 1858 2023<br>1833 1835<br>1812 1956<br>1961 1958<br>1961 1958<br>1961 1958<br>1961 1958<br>1961 1952<br>1962 1952<br>1966 1959<br>1868 1872<br>1868 1872<br>1868 1873<br>1868 1873<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875<br>1875 | 0000 0 0000 3.195 0000 0 0000 3.041 0000 0 0000 3.041 0000 0 0000 3.041 0000 0 0000 3.041 0000 0 0000 3.041 0000 0 0000 2.882 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883 0.000 0 0000 2.883  | 2.248 3.112 1.727 2.288 0.1870 2.994 0.1885 3.061 0.1895 2.994 0.1895 2.994 0.1895 2.994 0.1895 2.994 0.1895 2.994 0.1895 2.994 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.995 2.997 0.1895 2.99 | 0.001 0.001 3.174 0.382 0.000 0.000 0.000 0.001 2.842 0.384 0.0015 0.016 0.017 2.842 0.384 0.0015 0.0016 0.018 0.0016 0.0018 0.0018 0.0018 0.0018 0.0018 0.0018 0.0018 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000000  | 4.774 3.388 0.000 0.000 3.844 3.346 0.000 0.000 3.854 3.344 0.000 0.000 3.874 3.348 0.000 0.000 3.874 3.348 0.000 0.000 3.874 3.348 0.000 0.000 3.874 0.000 0.000 3.755 3.312 0.000 0.000 3.755 3.312 0.000 0.000 3.875 0.000 0.000 3.875 0.000 0.000 0.000 3.875 0.000 0.000 0.000 3.877 0.000 0.000 0.000 3.877 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000 3.878 0.000 0.000 0.000  | 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000  | 0.000 0.0000 0.289 0.0001 0.581 0.488 4.882 4.085 1.585 0.0000 0.0000 0.289 0.0001 0.758 0.405 4.607 3.179 0.0000 0.0000 0.180 0.0001 0.758 0.405 4.607 3.179 0.0000 0.0000 0.180 0.0001 0.758 0.405 3.507 2.822 0.0000 0.0000 0.0000 0.180 0.0000 0.0000 0.7000 0.397 3.585 3.592 2.822 0.0000 0.0000 0.0000 0.2000 0.0000 0.7000 0.397 3.398 3.397 2.822 0.0000 0.0000 0.0000 0.284 0.0111 0.736 0.397 3.388 3.304 3.001 0.0000 0.0000 0.190 0.0180 0.725 0.738 3.389 3.377 2.822 0.0000 0.0000 0.0000 0.190 0.0180 0.725 0.738 0.389 3.377 2.822 0.0000 0.0000 0.0000 0.190 0.0000 0.7000 0.7000 0.381 0.7000 0.381 3.850 2.822 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.7000 0.7000 0.381 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.000 |
| 158   5.200   17,500   5.200   17,500   3.992   0.056   1,860   1,403   1,905   5.200   17,224   5.250   17,224   5.250   0.058   2,740   0.058   2,740   1,426   1,600   1,426   1,600   1,7388   3.500   17,288   4.094   0.059   3.820   1,441   1,800   1,800   1,800   1,7552   3.350   1,7552   3.350   0.049   4.570   0.049   4.570   1,222   1,800   17,716   4.056   0.045   5.540   17,716   4.056   0.045   5.540   1,100   1,220   1,800  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3    | 3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>3 11138<br>1 11138   | \$ 0.999 0.99 | 000  | 1858 2023<br>1833 1835<br>1912 1956<br>1948 1956<br>1961 1958<br>1961 1958<br>1961 1958<br>1961 1958<br>1861 1862<br>1863 1872<br>1864 1951<br>1866 1857<br>1866 1857<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>1867<br>186   | 0000 0 0000 3.192 0000 1 0000 3.000 0000 1 0000 2.872 0000 1 0000 3.000 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.883 0000 0 0000 2.893 0000 0 0000 2.982 0000 0 0000 2.982 0000 0 0000 2.982 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893 0.000 0 0.000 2.893   | 2.248 3.112  | 0.001 0.001 3.174 0.382 0.000 0.001 3.174 0.382 0.005 0.001 3.174 0.382 0.005 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001  | 4.774 3.588 0.000 0.000 3.844 3.546 0.000 0.000 3.844 3.546 0.000 0.000 3.843 0.000 0.000 3.844 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.848 0.000 0.000 3.849 0.000 0.000 3.849 0.000 0.000  | 0.0000 0. | 0.000 0.0000 0.286 0.0001 0.514 0.488 4.882 4.085 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.185 0.000 0.000 0.0000 0.288 0.0001 0.758 0.045 4.047 3.187 0.000 0.000 0.0 |
| 189   5.200   17,950   5.200   17,950   3.992   0.056   1,860   1,403   1,950   1,950   1,950   1,405  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3    | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136   | \$ 0.999 0.939 0.999 0.998 0.99 | 000 000 1033 000 0000 1033 0000 10000 1033 0000 10000 1033 0000 10000 1033 0000 10000 10300 0000 10000 10300 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 00000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000 0000 10000 10000   | 1556 2023<br>1,833 1,834<br>1,932 1,935<br>1,938 1,938<br>1,938 1   | 0000 0.000 3.195 0000 0.000 3.000 0000 0.000 2.872 0.000 0.000 3.001 0.000 3.001 0.000 3.001 0.000 3.001 0.000 3.001 0.000 0.000 3.001 0.000 0.000 3.001 0.000 0.000 2.883 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.000 7.2827 0.000 0.0000 7.2827 0.000 0.0000 7.2827 0.000 0.0000 7.2827  | 2.248 3.112 1.727 2.288 0.1870 2.984 0.1870 1.985 3.061 0.1895 3.061 0 | 0.691 0.091 3.174 0.392 0.095 0.091 0.091 3.174 0.392 0.095 0.091 0.091 2.844 0.377 0.092 0.091  | 4.174 3.588 0.000 0.000 3.542 3.546 0.000 0.000 3.542 3.546 0.000 0.000 3.542 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.547 3.546 0.000 0.000 3.547 3.548 0.000 0.000 0.000 3.547 3.548 0.000 0.000 0.000 3.558 3.259 0.000 0.000 0.000 3.479 3.357 0.000 0.000 0.000 3.479 3.357 0.000 0.000 0.000 3.479 3.357 0.000 0.000 3.473 3.357 0.000 0.000 3.558 3.359 0.000 0.000 3.558 3.359 0.000 0.000 3.559 3.359 0.000 0.000 3.559 3.359 0.000 0.000 3.279 3.279 3.359 0.000 0.000 0.000 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279 3.279  | 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000  | 0.000  |
| 155   5.200   17,500   5.200   17,500   3.992   0.056   1.860   1.433   1.905   5.200   17,224   5.250   17,224   5.250   0.058   2.780   1.433   1.205   1.20 | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3 3 3 3 3 3 3 3<br>3            | 3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>3 111.36<br>1 111.36   | \$ 0.999 0.99 | 000 000 1030 1033 000 0000 1030 0000 1000 1  | 1556 2021<br>1833 1835<br>1831 1932 1956<br>1958 1958<br>1958 1   | 0.000   | 2.248 3.112 0.1727 2.283 0.172 0.1727 2.283 0.172 0.1727 0 | 0.691 0.091 3.174 0.392 0.095 0.096 0.011 2.842 0.354 0.372 0.019 0.019 0.011 2.842 0.374 0.372 0.019 0.019 0.019 0.019 0.019 0.019 0.019 0.019 0.001 0.002  | 4.174 3.588 0.000 0.000 3.542 3.546 0.000 0.000 3.542 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.566 3.541 0.000 0.000 3.566 3.544 0.000 0.000 3.566 3.544 3.545 0.000 0.000 3.544 3.546 0.000 0.000 3.547 3.546 0.000 0.000 3.568 3.556 0.000 0.000 3.578 0.000 0.000 0.000 3.579 3.556 0.000 0.000 0.000 3.579 3.556 0.000 0.000 0.000 3.556 3.539 0.000 0.000 0.000 3.556 3.539 0.000 0.000 0.000 3.556 3.539 0.000 0.000 0.000 3.579 3.556 0.000 0.000 3.579 3.556 0.000 0.000 3.579 3.556 0.000 0.000 3.579 3.556 0.000 0.000 3.579 3.557 0.000 0.000 3.579 3.579 0.000 0.000 0.000 0.000 3.579 3.579 0.000  | 0.0000 0. | 0.000 0.0000 0.289 0.0001 0.581 0.488 4.882 4.085 0.000 0.000 0.0000 0.289 0.0001 0.758 0.405 4.047 3.178 0.000 0.0000 0.289 0.0001 0.758 0.405 4.047 3.178 0.000 0.0000 0.0000 0.180 0.0001 0.758 0.405 4.047 3.178 0.000 0.0000 0.0000 0.2000 0.0000 0.730 0.391 3.912 2.000 0.000 0.0000 0.0000 0.2000 0.0000 0.730 0.391 3.912 2.000 0.0000 0.0000 0.2000 0.0000 0.730 0.391 3.912 3.912 0.000 0.0000 0.0000 0.286 0.0151 0.735 0.398 3.978 3.978 3.001 0.000 0.0000 0.2000 0.0000 0.758 0.0000 0.758 0.0000 0.758 0.0000 0.3000 0.2000 0.0 |
| 195   5200   17590   5200   17590   3992   0.056   1880   1433   1   | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3 3 3 3 3 3 3<br>3 | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | \$2 0.979 0.9 | 000  | 1858 2023<br>1833 1835<br>1812 1956<br>1912 1956<br>1961 1988<br>1961 1988<br>1961 1988<br>1961 1982<br>1962 1992<br>1962 1992<br>1962 1992<br>1962 1992<br>1962 1992<br>1963 1992<br>1963 1992<br>1964 1993<br>1965 1993<br>1968 1968 1968<br>1968 1968<br>1968 1968 1968<br>1968 1968 1968<br>1968 1968 1968<br>1968 196   | 0000 0 0000 3.192 0000 1 0000 3.000 0000 1 0000 2.872 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 2.883 0.000 1 0000 2.883   | 2.248 3.112 3.123 3.124 3.125  | 0.001 0.001 0.31/14 0.382 0.005 0.005 0.001 2.842 0.354 0.354 0.015 0.016 0.018 0.011 2.842 0.375 0.015 0.015 0.018 0.015 0.018 0.018 0.0018 0 | 4.774 3.388 0.000 0.000 3.842 3.366 0.000 0.000 3.844 3.364 0.000 0.000 3.856 3.341 0.000 0.000 3.856 3.341 0.000 0.000 3.856 3.341 0.000 0.000 3.856 3.341 0.000 0.000 3.874 3.348 0.000 0.000 3.755 3.342 0.000 0.000 0.000 3.755 3.342 0.000 0.000 0.000 3.755 3.367 0.000 0.000 0.000 3.755 3.367 0.000 0.000 0.000 3.857 3.361 0.000 0.000 0.000 3.857 3.364 0.000 0.000 3.857 3.364 0.000 0.000 3.355 3.364 0.000 0.000 3.355 3.364 0.000 0.000 3.328 3.374 0.000 0.000 3.256 3.375 3.381 0.000 0.000 3.275 3.389 0.000 0.000 3.275 3.389 0.000 0.000 3.275 3.381 0.000 0.000 3.275 3.389 0.000 0.000 3.275 3.383 0.000 0.000 3.275 3.383 0.000 0.000 3.275 3.383 0.000 0.000 3.275 3.383 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.385 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.385 0.000 0.000 3.275 3.385 0.000 0.000 3.275 3.385 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.385 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 3.385 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 3.275 3.384 0.000 0.000 0.000 3.275 3.375 3.384 0.000 0.000 0.000 3.275 3.375 3.384 0.000 0.000 0.000 3.275 3.375 3.384 0.000 0.000 0.000 3.275 3.375 3.375 3.375 3.375 0.000 0.000 0.000 3.275 3.375 3.375  | 0.0000 0. | 0.000  |
| 155   5.200   17.560   5.200   17.560   3.992   0.056   1.860   1.433   1.950   5.200   17.560   3.992   0.056   1.860   1.433   1.950   5.200   17.244   5.250   17.224   4.055   0.058   1.860   1.436   1.456   1.660   1.500   17.388   5.300   17.7388   4.094   0.059   3.820   1.441   1.950    | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | \$ 0.999 0.99 | 000 000 1030 1033 000 000 1030 1033 000 000  | 1858 2023<br>1833 1835<br>1812 1958<br>1912 1958<br>1961 1968<br>1961 1988<br>1961 1988<br>1861 1982<br>1962 1982<br>1962 1982<br>1868 187<br>1868 1   | 0000 0 0000 2872 0000 0 0000 3 3091 0000 0 0000 3 3091 0000 0 0000 3 3091 0000 0 0000 3 3091 0000 0 0000 3 3091 0000 0 0000 2882 0 0000 0 0000 2882   | 2.248 3.112 3.123  | 0.001 0.001 3.174 0.392 0.000 0.001 0.001 3.174 0.392 0.000 0.001  | 4.774 3.588 0.000 0.000 3.842 3.586 0.000 0.000 3.842 3.586 0.000 0.000 3.842 3.586 0.000 0.000 3.844 0.000 0.000 3.844 0.000 0.000 3.866 3.344 0.000 0.000 0.000 3.866 3.347 0.000 0.000 0.000 3.867 0.000 0.000 0.000 3.868 3.347 0.000 0.000 0.000 3.868 3.347 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.488 3.332 0.000 0.000 0.000 3.488 3.332 0.000 0.000 0.000 3.266 3.374 0.000 0.000 0.000 3.266 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.374 0.000 0.000 3.268 3.389  | 0.0000 0. | 0.000 0.0000 0.289 0.0001 0.981 0.488 4.882 4.085 0.000 0.000 0.0000 0.289 0.0001 0.788 0.0005 4.007 3.089 0.0001 0.0000 0.0000 0.0000 0.289 0.0001 0.788 0.0005 4.007 3.787 2.872 0.0000 0.000 |
| 185   5.200   17,950   5.200   17,050   3.992   0.056   1,860   1,403   1,750  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 4 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3<br>3 3 3 3 3 3<br>3 3 3 3 3 3 3<br>3 | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | 0 0.97  | 000 000 1033 000 0000 1033 000 0000 1033 000 0000 1033 000 0000 1030 0000 1030 103   | 1856 2023<br>1833 1835<br>1812 1956<br>1912 1956<br>1961 1988 1967<br>1961 1988<br>1961 1988<br>1861 1987<br>1868 187<br>1868 187<br>1868 187<br>1868 187<br>1868 187<br>1868 187<br>1869 183<br>1868 187<br>1869 183<br>1860 1860 183<br>1860 183   | 0000 0 0000 3.192 0000 1 0000 3.192 0000 1 0000 3.000 0000 1 0000 3.000 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 0 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893 0.0000 1 0000 2.893   | 2.248 3.112  | 0.001 0.001 3.174 0.392 0.000 0.001 3.174 0.392 0.000 0.001 3.174 0.392 0.000 0.001 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000  | 4.774 3.588 0.000 0.000 3.542 3.546 0.000 0.000 3.544 3.544 0.000 0.000 3.544 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.548 3.537 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.532 0.000 0.000 3.548 3.547 3.531 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.547 3.558 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 0.000 3.558 3.578 0.000 0.000 0.000 3.558 3.578 0.000  | 0.0000 0. | 0.000  |
| 185   5.200   17,090   5.200   17,090   3.992   0.055   1880   1,403   1,905   5.290   17,024   5.250   17,024   5.250   0.055   1880   1,403   1,425   1,905   1,905   1,905   1,905   1,425   1,905  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | \$ 0.999 0.939 0.999 0.998 0.99 | 000  | 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 2,023 1,556 1,566  | 0.000   | 2.288 3.112 3.182  | 0.691 0.091 3.174 0.392 0.096 0.011 2.842 0.354 0.354 0.019 2.944 0.377 0.392 0.021 0.028 0.011 2.842 0.374 0.392 0.021 0.028 0.021 0.028 0.029  | 4.174 3.588 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.346 0.000 0.000 3.347 3.546 0.000 0.000 0.000 3.347 3.548 0.000 0.000 0.000 3.558 3.259 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.347 0.000 0.000 0.000 3.275 3.340 0.000 0.000 0.000 3.275 3.340 0.000 0.000 0.000 3.275 3.359 0.000 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.350 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.000 | 0.000 0.0000 0.289 0.0001 0.981 0.488 4.882 4.085 1.895 0.0000 0.0000 0.289 0.0001 0.758 0.045 4.697 3.185 0.0000 0.0000 0.180 0.0001 0.758 0.045 4.697 3.185 0.0000 0.0000 0.180 0.0001 0.758 0.045 3.975 3.982 2.822 0.0000 0.0000 0.0000 0.180 0.0001 0.7000 0.397 3.898 3.041 0.0000 0.0000 0.0000 0.280 0.0001 0.7000 0.397 3.898 3.041 0.0000 0.0000 0.0000 0.280 0.011 0.058 0.058 3.897 3.398 3.001 0.0000 0.0000 0.198 0.018 0.755 0.389 3.397 3.398 3.001 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 3.201 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 2.882 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 2.882 0.0000 0.0000 0.198 0.018 0.0000 0.750 0.0000 3.399 0.750 0.399 3.399 2.829 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.000 |
| 185   5.200   17,950   5.200   17,050   3.992   0.056   1,860   1,403   1,750  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | 0 0.97  | 000 000 1033 000 0000 1033 000 0000 1033 000 0000 1033 000 0000 1030 | 1856 2023<br>1833 1835<br>1812 1956<br>1912 1956<br>1961 1988<br>1961 1988<br>1961 1988<br>1961 1988<br>1961 1988<br>1861 1897<br>1888 187<br>1886 1886 187<br>1886 188<br>1886 187<br>1886 188<br>1886 188<br>1886 188<br>1886 188<br>1886 188<br>1886 188<br>1886 188<br>1   | 0000 0 0000 3.195 0000 1 0000 3.195 0000 1 0000 3.000 0000 1 0000 3.000 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 3.001 0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.883 0.0000 1 0000 2.893 | 2.248 3.112 3.123 1.253  | 0.001 0.001 0.3174 0.392 0.000 0.001 0.3174 0.392 0.005 0.001 0.247 0.354 0.377 0.008 0.0115 0.015 0.015 0.2544 0.377 0.0015 0.0015 0.0015 0.2954 0.397 0.0015 0.0029 0.0039 0.2914 0.381 0.0029 0.0059 0.2914 0.381 0.0029 0.0059 0.2914 0.381 0.0029 0.0059 0.2914 0.381 0.005 0.0 | 4.774 3.358 0.000 0.000 3.344 3.346 0.000 0.000 3.354 3.344 0.000 0.000 3.356 3.347 0.000 0.000 3.366 3.347 0.000 0.000 3.368 3.347 0.000 0.000 3.368 3.347 0.000 0.000 3.368 3.348 0.000 0.000 3.368 3.368 0.000 0.000 3.368 3.368 0.000 0.000 3.368 3.368 0.000 0.000 3.368 3.368 0.000 0.000 3.368 3.368 0.000 0.000 3.368 3.378 0.000 0.000 3.368 3.378 0.000 0.000 3.368 3.378 0.000 0.000 3.368 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.369 3.378 0.000 0.000 3.389 3.389 0.000 0.000 3.389 3.389 0.000 0.000 3.389 3.389 0.000 0.000 3.389 3.389 0.000 0.000 3.389 3.389 0.000 0.000 3.389 3.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389 0.389 0.000 0.000 0.000 0.000 3.389  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  | 0.000  |
| 185   5.200   17,090   5.200   17,090   3.992   0.055   1880   1,403   1,905   5.290   17,024   5.250   17,024   5.250   0.055   1880   1,403   1,425   1,905   1,905   1,905   1,905   1,425   1,905  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | \$ 0.999 0.99 | 000  | 1,556 2,023<br>1,833 1,834<br>1,912 1,956<br>1,948 1,958<br>1,951 1,958<br>1,951 1,958<br>1,951 1,958<br>1,951 1,958<br>1,952 1,952<br>1,952 1,952<br>1,855 1,952<br>1,956 1,953<br>1,950 1,956<br>1,950   | 0.000   | 2.248 3.112 3.123 1.727 2.283 0.512  | 0.691 0.091 3.174 0.392 0.095 0.096 0.011 2.842 0.354 0.372 0.078 0.071 2.848 0.377 0.392 0.071 0.072  | 4.174 3.588 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.342 3.546 0.000 0.000 3.344 0.000 0.000 3.344 0.000 0.000 3.346 0.000 0.000 3.347 3.546 0.000 0.000 0.000 3.347 3.548 0.000 0.000 0.000 3.558 3.259 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.337 0.000 0.000 0.000 3.473 3.347 0.000 0.000 0.000 3.275 3.340 0.000 0.000 0.000 3.275 3.340 0.000 0.000 0.000 3.275 3.359 0.000 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.340 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.359 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.277 3.350 0.000 0.000 3.350 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 0.000 3.350 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  | 0.000 0.0000 0.289 0.0001 0.981 0.488 4.882 4.085 1.895 0.0000 0.0000 0.289 0.0001 0.758 0.045 4.697 3.185 0.0000 0.0000 0.180 0.0001 0.758 0.045 4.697 3.185 0.0000 0.0000 0.180 0.0001 0.758 0.045 3.975 3.982 2.822 0.0000 0.0000 0.0000 0.180 0.0001 0.7000 0.397 3.898 3.041 0.0000 0.0000 0.0000 0.280 0.0001 0.7000 0.397 3.898 3.041 0.0000 0.0000 0.0000 0.280 0.011 0.058 0.058 3.897 3.398 3.001 0.0000 0.0000 0.198 0.018 0.755 0.389 3.397 3.398 3.001 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 3.201 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 2.882 0.0000 0.0000 0.198 0.018 0.755 0.758 0.389 3.397 2.882 0.0000 0.0000 0.198 0.018 0.0000 0.750 0.0000 3.399 0.750 0.399 3.399 2.829 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.000 |
| 155   5.200   17,560   5.200   17,560   3.992   0.056   1.860   1.433   1.500   1.296   1.406  | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136  | 0 0.99  | 000  | 1858 2023<br>1833 1835<br>1912 1956<br>1961 1988 1956<br>1961 1988<br>1961 1988<br>1961 1988<br>1961 1988<br>1861 1989<br>1868 1837<br>1888 1872<br>1888 1872<br>1888 1872<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1888 1987<br>1988 1988<br>1988 1   | 0.000   | 2.248 3.112 3.122 3.123  | 0.001 0.001 0.31/14 0.382 0.000 0.000 0.001 0.31/14 0.382 0.005 0.001 0.001 0.2442 0.374 0.375 0.0015 0.0016 0.001 | 4.174 3.588 0.000 0.000 3.542 3.546 0.000 0.000 3.542 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.544 3.546 0.000 0.000 3.546 3.546 0.000 0.000 3.547 3.546 0.000 0.000 3.547 3.546 0.000 0.000 3.547 3.548 0.000 0.000 0.000 3.548 3.528 0.000 0.000 0.000 3.547 3.537 0.000 0.000 0.000 3.547 3.537 0.000 0.000 0.000 3.547 3.537 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.558 3.558 0.000 0.000 0.000 3.579 3.589 0.000 0.000 0.000 3.579 3.589 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 0.000 3.579 3.580 0.000 0.000 0.000 0.000 0.000 3.579 3.580 0.000  | 0.0000 0. | 0.000 0.0000 0.289 0.0001 0.981 0.488 4.882 4.085 1.000   0.0000 0.0000 0.289 0.0001 0.758 0.485 4.687 3.185   0.000 0.0000 0.180 0.0001 0.758 0.485 4.687 3.185   0.000 0.0000 0.180 0.0001 0.758 0.485 3.487 2.827   0.000 0.0000 0.0000 0.750 0.700 0.397 3.787 2.827   0.000 0.0000 0.0000 0.7000 0.700 0.700 0.397 3.388 3.041   0.000 0.0000 0.280 0.011 0.735 0.389 3.397 3.392   0.000 0.0000 0.280 0.015 0.735 0.389 3.397 2.827   0.000 0.0000 0.190 0.018 0.011 0.735 0.389 3.397 2.827   0.000 0.0000 0.190 0.190 0.018 0.725 0.385 3.387 2.820   0.000 0.0000 0.190 0.018 0.000 0.700 0.380 3.387 2.820   0.000 0.0000 0.190 0.000 0.700 0.380 3.392 2.227   0.000 0.0000 0.190 0.000 0.700 0.380 0.397 2.822   0.000 0.0000 0.192 0.0000 0.687 0.374 3.743 2.287   0.000 0.0000 0.192 0.0000 0.000 0.700 0.380 3.000 0.000 0.000 0.192 0.0000 0.000 0.000 0.192 0.0000 0.000 0.000 0.192 0.0000 0.000 0.000 0.192 0.0000 0.000 0.000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.0000 0.0000 0.0000 0.190 0.000 |
| 195   5.200   17,950   5.200   17,950   3.992   0.055   1,860   1,403   1,105   5.200   17,924   5.250   17,724   4.055   0.053   27,40   1,425   1,425   1,60   5.300   17,388   5.300   17,388   4.994   0.059   3.820   1,441   1   1,60   5.300   17,582   3.395   0.049   4.575   0.049   4.575   1,222   1,60   1,775   3.397   0.049   4.575   0.049   1,750   1,222   1,60   1,775   1,775   3.397   0.049   4.575   0.041   1,750   1 | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | \$2 0.979 0.9 | 000  | 1858 2023 1833 1835 1812 1956 1912 1956 1961 1988 1961 1988 1961 1988 1961 1988 1961 1988 1961 1988 1961 1988 1962 1962 1962 1962 1962 1962 1962 1962 1963 1962 1963 1962 1963 1963 1963 1963 1964 1961 1965 1963 1968 1968  | 0.000   | 2.248 3.112 3.123 3.124 3.125 3.124 3.125 3.124 3.125 3.124 3.125  | 0.001 0.001 0.31/14 0.382 0.000 0.001 0.31/14 0.382 0.005 0.001 0.001 0.24 0.005 0.001 0.0 | 4.774 3.328 0.000 0.000 3.344 3.346 0.000 0.000 3.354 3.344 0.000 0.000 3.354 3.356 3.341 0.000 0.000 3.356 3.341 0.000 0.000 0.000 3.356 3.341 0.000 0.000 0.000 3.375 3.374 3.337 0.000 0.000 0.000 3.374 0.000 0.000 0.000 0.000 3.375 3.346 3.327 0.000 0.000 0.000 3.365 3.346 0.000 0.000 0.000 3.365 3.367 0.000 0.000 0.000 3.355 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.359 0.000 0.000 0.000 3.359 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 0.000 3.358 3.358 0.000  | 0.0000 0. | 0.000 0.0000 0.280 0.0001 0.914 0.488 4.882 4.085 0.000   0.0000 0.0000 0.289 0.0001 0.758 0.045 4.691 3.185 0.000   0.0000 0.0000 0.189 0.0004 0.716 0.377 3.787 2.872   0.0000 0.0000 0.189 0.0004 0.716 0.377 3.787 2.872   0.0000 0.0000 0.2000 0.0007 0.730 0.391 3.3912 3.300   0.0000 0.0000 0.2000 0.0007 0.730 0.391 3.3912 3.300   0.0000 0.0000 0.2000 0.0017 0.735 0.388 3.397 3.392   0.0000 0.0000 0.2000 0.011 0.735 0.388 3.397 3.392   0.0000 0.0000 0.2000 0.011 0.735 0.388 3.397 3.393   0.0000 0.0000 0.2000 0.011 0.022 0.716 0.397 3.393 3.397 2.202   0.0000 0.0000 0.291 0.0000 0.0000 0.393 3.395 2.222   0.0000 0.0000 0.192 0.0000 0.0000 0.393 3.395 2.2227   0.0000 0.0000 0.192 0.0000 0.050 0.0000 0.390 3.395 2.2227   0.0000 0.0000 0.192 0.0000 0.687 0.374 3.744 2.744   0.0000 0.0000 0.192 0.0000 0.687 0.374 3.744 2.744   0.0000 0.0000 0.192 0.0000 0.0000 0.192 0.0000 0.0000 0.284 0.0000 0.0000 0.284 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000 0.0000 0.0000 0.192 0.0000  |
| 155   5.200   17.560   5.200   17.560   3.992   0.056   1.880   1.433   1.995   5.200   17.560   3.992   0.056   1.880   1.433   1.456   1.66   5.000   17.388   5.300   17.7388   4.094   0.059   3.820   1.441   1.66   5.300   17.582   5.350   17.7552   3.395   0.049   4.570   1.222   1.60   17.7552   3.395   0.049   4.570   0.049   4.570   1.222   1.60   17.7552   3.395   0.049   4.570   0.049   4.570   1.222   1.60   17.7552   3.395   0.049   4.570   0.049   4.570   1.222   1.60   17.7552   3.395   0.042   4.570   0.042   5.560   1.100   1.228   1.60   1. | 3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 4 3<br>3 3 3 3 3 3 3<br>3     | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | \$2 0.979 0.9 | 000  | 1856 2023 1833 1835 1812 1956 1958 1958 1958 1958 1958 1958 1958 1958  | 0.000   | 2.288 3.112 3.189 1.787 1.898 2.289  | 0.001 0.001 0.3174 0.392 0.000 0.001 0.3174 0.392 0.001 0.00 | 4.74   3.58   0.000   0.000   3.542   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.544   3.535   0.000   0.000   3.574   3.535   0.000   0.000   3.574   3.535   0.000   0.000   3.573   3.58   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.56   3.58   0.000   0.000   0.000   3.56   3.58   0.000   0.000   0.000   3.56   3.574   0.000   0.000   0.000   3.56   3.574   0.000   0.000   0.000   3.56   3.574   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.577   3.58   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.000   0.000   3.56   0.000   0.   | 0.00000 0.0000 0 | 0.000  |
| 185   5.200   17.950   5.200   17.950   3.992   0.055   1.880   1.433   1.955   5.200   17.954   5.250   17.724   4.055   0.053   2.780   1.426   1.455   1.655   1.655   1.655   1.455   1.455   1.655   1.655   1.455   1.455   1.655   1.655   1.455   1.455   1.655   1.655   1.455   1.455   1.455   1.655   1.45 | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | \$ 0.999 0.93 | 000  | 1556 2021 1833 1834 1831 1834 1932 1956 1958 1958 1958 1958 1958 1958 1958 1958  | 0.000   | 2.248 3.112 3.123 3.124 3.125 3.124 3.125 3.124 3.125 3.124 3.125  | 0.001 0.001 0.31/14 0.382 0.000 0.001 0.31/14 0.382 0.005 0.001 0.001 0.24 0.005 0.001 0.0 | 4.774 3.328 0.000 0.000 3.344 3.346 0.000 0.000 3.354 3.344 0.000 0.000 3.354 3.356 3.341 0.000 0.000 3.356 3.341 0.000 0.000 0.000 3.356 3.341 0.000 0.000 0.000 3.375 3.374 3.337 0.000 0.000 0.000 3.374 0.000 0.000 0.000 0.000 3.375 3.346 3.327 0.000 0.000 0.000 3.365 3.346 0.000 0.000 0.000 3.365 3.367 0.000 0.000 0.000 3.355 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.358 0.000 0.000 0.000 3.359 0.000 0.000 0.000 3.359 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 3.357 3.358 0.000 0.000 0.000 0.000 0.000 3.358 3.358 0.000  | 0.00000 0.0000 0 | 0.000 0.0000 0.289 0.0001 0.981 0.488 4.882 4.085 0.000   0.0000 0.0000 0.289 0.0001 0.758 0.489 4.882 4.085   0.000 0.0000 0.189 0.0004 0.710 0.377 3.787 2.872   0.000 0.0000 0.0000 0.189 0.0004 0.710 0.377 3.787 2.872   0.000 0.0000 0.0000 0.780 0.0004 0.710 0.377 3.787 2.872   0.000 0.0000 0.0000 0.200 0.0007 0.730 0.391 3.912 3.300   0.000 0.0000 0.200 0.0007 0.730 0.391 3.912 3.300   0.000 0.0000 0.200 0.0007 0.730 0.391 3.912 3.300   0.000 0.0000 0.200 0.0007 0.735 0.388 3.376 3.300   0.000 0.0000 0.200 0.0007 0.735 0.388 3.376 3.300   0.000 0.0000 0.200 0.0007 0.735 0.388 3.376 3.300   0.000 0.0000 0.200 0.0007 0.735 0.388 3.376 3.300   0.0000 0.0000 0.200 0.000 0.780 0.000 0.700 0.380 3.300 3.200   0.0000 0.0000 0.192 0.002 0.700 0.380 3.300 3.200   0.0000 0.0000 0.192 0.002 0.000 0.000 3.300 0.000 0.000 0.000 0.192 0.000 0.000 0.000 0.192 0.0000 0.000 0.000 0.000 0.0000 0.0000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  |
| 155   5.200   17,560   5.200   17,560   3.992   0.056   1.860   1.433   1.500   1.236   1.436  | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | \$ 0.999 0.99 | 000  | 1556 2021 1833 1835 1831 1831 1912 1956 1951 1958 1951 1958 1951 1958 1951 1958 1951 1958 1951 1958 1952 1958 1958 1959 1958 1958 1958 1959 1958 1958 1958 1959 1958 1   | 0.000   | 2.288 3.112 3.182  | 0.691 0.091 3.174 0.392 0.095 0.096 0.011 2.842 0.354 0.372 0.095 0.011 2.842 0.374 0.392 0.015 0.019 0.021 0.028 0.011 0.019 0.021 0.028 0.001  | 4.174 3.588 0.000 0.000 3.542 3.546 0.000 0.000 3.542 3.546 0.000 0.000 0.000 3.542 3.546 0.000 0.000 0.000 3.544 3.546 0.000 0.000 0.000 3.546 3.546 0.000 0.000 0.000 3.547 3.546 0.000 0.000 0.000 3.548 3.548 0.000 0.000 0.000 3.548 3.532 0.000 0.000 0.000 3.579 3.557 0.000 0.000 0.000 3.579 3.557 0.000 0.000 0.000 3.549 3.557 0.000 0.000 0.000 3.549 3.557 0.000 0.000 0.000 3.558 3.557 0.000 0.000 0.000 3.558 3.557 0.000 0.000 0.000 3.558 3.557 0.000 0.000 0.000 3.558 3.557 0.000 0.000 0.000 3.558 3.557 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.558 0.000 0.000 0.000 3.579 3.599 0.000 0.000 0.000 0.000 3.579 3.599 0.000 0.000 0.000 0.000 3.579 3.599 0.000 0.000 0.000 0.000 3.579 3.599 0.000  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.000 | 0.000  |
| 155   5.200   17.500   5.200   17.500   3.992   0.055   1.880   1.433   1.955   5.200   17.500   3.992   0.055   1.880   1.433   1.455   1.600   1.455   1.455   1.600   1.455   1.455   1.455   1.600   17.388   5.300   17.388   4.094   0.059   3.820   1.441   1.600   1.600   1.600   1.202   1.600   17.552   3.390   1.455   1.600   1.7552   3.390   0.441   1.600   1.600   1.202   1.600   1 | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | \$ 0.999 0.99 | 000  | 1856 2023 1833 1835 1812 1956 1912 1956 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1961 1968 1963 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1963 1968 1   | 0.000   | 2.288 3.112 3.123 3.124 3.125  | 0.001 0.001 0.3174 0.382 0.000 0.001 0.3174 0.382 0.005 0.001 0.001 0.2842 0.394 0.397 0.0015 0.0016 | 4.74   3.388   0.000   0.000   3.342   3.346   0.000   0.000   3.344   3.344   0.000   0.000   3.356   3.341   0.000   0.000   3.365   3.341   0.000   0.000   3.365   3.341   0.000   0.000   0.000   3.374   3.337   0.000   0.000   3.374   3.337   0.000   0.000   3.374   3.337   0.000   0.000   3.374   3.337   0.000   0.000   3.375   3.337   0.000   0.000   3.348   3.332   0.000   0.000   3.348   3.332   0.000   0.000   3.348   3.332   0.000   0.000   3.348   3.332   0.000   0.000   3.328   3.374   0.000   0.000   3.328   3.374   0.000   0.000   3.328   3.374   0.000   0.000   3.328   3.374   0.000   0.000   3.328   3.374   0.000   0.000   3.328   3.374   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   3.327   3.383   0.000   0.000   0.000   3.327   3.383   0.000   0.000   0.000   3.328   3.337   0.000   0.000   0.000   3.328   3.338   0.000   0.000   0.000   3.328   3.338   0.000   0.000   0.000   3.347   3.333   0.000   0.000   0.000   3.358   3.338   0.000   0.000   0.000   3.358   3.339   0.000   0.000   0.000   3.359   3.358   0.000   0.000   0.000   3.359   3.358   0.000   0.000   0.000   3.359   3.358   0.000   0.000   0.000   0.000   3.358   3.359   0.000   | 0.0000 0. | 0.000  |
| 155   5.200   17,500   5.200   17,500   3.992   0.056   1.860   1.433   1.050   1.200   1.200   1.450  | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | S   | 000  | 1555 2023 1833 1835 1812 1955 1391 1956 1391 1957 1392 1958 1391 1958 1391 1959 1392 1959 1392 1959 1393 1959 1394 1294 1395 1295 1395 1   | 0.000   | 2.248 3.112 0.1727 2.283 0.172 0.1727 2.283 0.172 0.1727 2.283 0.172 0.1727 2.283 0.172 0.1727 0.172 | 0.001 0.001 0.3174 0.392 0.005 0.001 0.001 0.3174 0.392 0.005 0.001 0.001 0.2842 0.394 0.377 0.0021 0.0028 0.001 0.001 0.0028 0.001 0.0028 0.001 0.0029 0.0028 0.0038 0.005 0. | 4.74   3.58   0.000   0.000   3.542   3.56   0.000   0.000   3.544   3.586   0.000   0.000   3.544   3.566   0.000   0.000   3.544   3.566   0.000   0.000   3.566   3.547   0.000   0.000   0.000   3.564   3.545   0.000   0.000   0.000   3.544   3.535   0.000   0.000   0.000   3.543   3.545   0.000   0.000   0.000   3.558   3.546   0.000   0.000   0.000   3.573   3.577   0.000   0.000   0.000   3.473   3.337   0.000   0.000   0.000   3.473   3.337   0.000   0.000   3.568   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.558   3.359   0.000   0.000   0.000   3.559   3.578   0.000   0.000   0.000   3.257   3.589   0.000   0.000   0.000   3.257   3.589   0.000   0.000   0.000   3.257   3.589   0.000   0.000   3.257   3.589   0.000   0.000   3.257   3.589   0.000   0.000   3.568   3.579   0.000   0.000   3.568   3.579   0.000   0.000   3.568   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.577   3.589   0.000   0.000   0.000   3.577   3.589   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000     | 0.0000 0. | 0.000  |
| 195   5.200   17,950   5.200   17,950   3.992   0.055   1,860   1,433   1,555   5.200   17,954   5.255   17,724   4.055   0.053   2,740   1,425   1,555   1,555   1,555   1,555   1,555   1,555   1,555   1,755   1,55 | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | 0 0.99  | 000  | 1858 2023 1833 1835 1812 1956 1958 1958 1968 1968 1   | 0.000   | 2.288 3.112 3.123 3.124 3.125  | 0.001 0.001 0.3174 0.382 0.000 0.001 0.3174 0.382 0.364 0.377 0.015 0.016 0.364 0.377 0.382 0.0015 0.016 0.016 0.364 0.377 0.016 0.016 0.0016  | 4.74   3.58   0.000   0.000   3.542   3.56   0.000   0.000   3.544   3.586   0.000   0.000   3.544   3.566   0.000   0.000   3.544   3.566   0.000   0.000   3.566   3.547   0.000   0.000   0.000   3.564   3.545   0.000   0.000   0.000   3.544   3.535   0.000   0.000   0.000   3.543   3.545   0.000   0.000   0.000   3.558   3.546   0.000   0.000   0.000   3.573   3.577   0.000   0.000   0.000   3.473   3.337   0.000   0.000   0.000   3.473   3.337   0.000   0.000   3.568   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.548   3.332   0.000   0.000   0.000   3.558   3.359   0.000   0.000   0.000   3.559   3.578   0.000   0.000   0.000   3.257   3.589   0.000   0.000   0.000   3.257   3.589   0.000   0.000   0.000   3.257   3.589   0.000   0.000   3.257   3.589   0.000   0.000   3.257   3.589   0.000   0.000   3.568   3.579   0.000   0.000   3.568   3.579   0.000   0.000   3.568   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.569   3.579   0.000   0.000   3.577   3.589   0.000   0.000   0.000   3.577   3.589   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.569   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000   0.000   0.000   3.577   3.579   0.000     | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0 | 0.000  |
| 155   5.200   17,560   5.200   17,560   3.992   0.056   1.860   1.433   1.656   1.266   1.456  | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | 0 0.99  | 000  | 1856 2023 1833 1835 1812 1956 1958 1958 1958 1958 1958 1958 1958 1958  | 0,000   | 2.288 3.112 3.189 1.1870 2.2894 2.281 2.28 | 0.001 0.001 0.3174 0.392 0.005 0.001 0.001 0.3174 0.392 0.005 0.001 0.001 0.2842 0.394 0.377 0.0021 0.0028 0.001 0.001 0.0028 0.001 0.0029 0.0028 0.0039 0.0029 0.0029 0.0039 0.0 | 4.74   3.58   0.000   0.000   3.542   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.54   0.000   0.000   3.56   3.54   0.000   0.000   3.574   3.53   0.000   0.000   3.574   3.53   0.000   0.000   3.574   3.53   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.58   3.53   0.000   0.000   0.000   3.58   3.53   0.000   0.000   0.000   3.56   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575      | 0.0000 0. | 0.000  |
| 155   5.200   17.560   5.200   17.560   3.992   0.056   1.880   1.433   1.995   5.200   17.560   3.992   0.056   1.880   1.433   1.456   1.66   5.000   17.388   5.300   17.7284   4.094   0.059   3.820   1.448   1.66   5.300   17.582   5.350   17.755   3.379   0.049   4.570   1.222   1.60   17.755   3.379   0.049   4.570   1.222   1.60   17.755   3.379   0.049   4.570   0.049   4.570   1.222   1.60   17.755   3.379   0.049   4.570   0.049   4.570   1.222   1.60   17.755   3.379   0.049   4.570   0.049   4.570   1.222   1.60   1.70   1.6 | 3 4 3 3 3 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 3 4 4 3 3 4 4 3 4 3 4   | 3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>3 11136<br>1 11136 | 0 0.99  | 000  | 1856 2023 1833 1835 1812 1956 1958 1958 1958 1958 1958 1958 1958 1958  | 0.000   | 2.288 3.112 3.189 1.1870 2.2894 2.281 2.28 | 0.001 0.001 0.3174 0.392 0.005 0.001 0.001 0.001 0.3174 0.392 0.005 0.001 0.00 | 4.74   3.58   0.000   0.000   3.542   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.544   3.56   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.544   0.000   0.000   3.56   3.54   0.000   0.000   3.56   3.54   0.000   0.000   3.574   3.53   0.000   0.000   3.574   3.53   0.000   0.000   3.574   3.53   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.573   3.58   0.000   0.000   0.000   3.58   3.53   0.000   0.000   0.000   3.58   3.53   0.000   0.000   0.000   3.56   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.574   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.577   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575   0.000   0.000   0.000   3.55   3.575      | 0.0000 0. | 0.000  |

| A B C D E F G H I  | J K L M N O  | PQRSTUVWXY   | Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR  |
|--|--|--|--|
| 201 7.350 24.114 -7.350 -24.114 6.611 0.064 115.480 0.968 1  |  | 391 0.000 0.000 0.867 3.167 2.744 0.000 0.000 3.756 1.22   |  |
| 202 7.400 24.278 -7.400 -24.278 6.696 0.066 119.440 0.986 1<br>203 7.450 24.442 -7.450 -24.442 6.798 0.062 122.970 0.912 1   | 3 3 3 1 111.369 1.400<br>3 3 3 1 111.369 1.409   | 400 0.000 0.000 0.864 3.207 2.770 0.000 0.000 3.786 1.24<br>409 0.000 0.000 0.861 3.256 2.803 0.000 0.000 3.827 1.15   |  |
| 203 7.450 24.442 -7.450 -24.442 6.796 0.062 122.970 0.912 1  | 3 3 3 1 111.369 1.409  | 118 0.000 0.000 0.861 3.256 2.803 0.000 0.000 3.827 1.15   | 19 5.498 0.588 0.714 1.108 0.286 2.109 3.132 0.000 0.000 0.000 0.000 0.000 0.367 0.491 0.879 0.589 5.885 3.879   |
| 205 7.550 24.770 -7.550 -24.770 6.726 0.059 129.190 0.877 1  | 3 3 3 0 111.369 1.427  | 127 0.000 0.000 0.855 3.222 2.756 0.000 0.000 3.715 1.11   | 13 5.300 0.600 0.761 0.887 0.258 1.888 3.165 0.000 0.000 0.000 0.000 0.000 0.353 0.504 0.850 0.551 5.512 3.715   |
| 206 7.600 24.934 -7.600 -24.934 7.095 0.063 130.560 0.888 1  | 3 3 3 1 111.369 1.436  | 436 0.000 0.000 0.853 3.399 2.898 0.000 0.000 3.942 1.11   | 13 5.659 0.575 0.720 1.102 0.289 2.103 3.141 0.000 0.000 0.000 0.000 0.000 0.377 0.510 0.891 0.580 5.796 3.942   |
| 207 7.650 25.098 -7.650 -25.098 7.071 0.064 129.990 0.905 1  | 3 3 3 1 111.369 1.445  | 445 0.000 0.000 0.850 3.387 2.879 0.000 0.000 3.894 1.13   |  |
| 208 7.700 25.262 -7.700 -25.262 7.198 0.058 132.710 0.806 1  | 3 3 3 1 111.369 1.455<br>3 3 1 111.369 1.464   | 455 0.000 0.000 0.847 3.448 2.922 0.000 0.000 3.951 1.01   |  |
| 210 7.800 25.590 -7.800 -25.590 7.552 0.061 136.700 0.836 1  | 3 3 3 1 111.369 1.464  | 173 0.000 0.000 0.842 3.618 3.046 0.000 0.000 3.985 1.04   |  |
| 211 7.850 25.754 -7.850 -25.754 7.537 0.073 142.120 0.969 1  | 3 3 3 1 111.369 1.482  | 482 0.000 0.000 0.839 3.610 3.031 0.000 0.000 4.088 1.20   |  |
| 212 7.900 25.918 -7.900 -25.918 7.832 0.051 144.450 0.651 1  | 3 3 3 1 111.369 1.491  | 491 0.000 0.000 0.837 3.751 3.139 0.000 0.000 4.255 0.80   | 04 6.341 0.576 0.711 1.228 0.318 2.229 3.056 0.000 0.000 0.000 0.000 0.000 0.000 0.423 0.564 0.951 0.628 6.279 4.255   |
| 213 7.950 26.082 -7.950 -26.082 12.014 0.145 149.650 1.207 6   | 4 3 3 3 114.551 1.500  | 500 0.000 0.000 0.834 4.604 3.841 3.788 2.307 7.011 1.37   |  |
| 214 8.000 26.246 -8.000 -26.246 19.937 0.154 62.050 0.772 6  | 4 5 4 5 114.551 1.510  | 510 0.000 0.000 0.832 7.640 6.354 5.281 3.376 12.211 0.83  |  |
| 215 8.050 26.410 -8.050 -26.410 15.335 0.219 80.830 1.428 6<br>216 8.100 26.574 -8.100 -26.574 14.970 0.249 91.250 1.663 6   | 4 5 3 4 114.551 1.519<br>3 4 3 3 114.551 1.529   | 519 0.000 0.000 0.829 5.876 4.872 4.635 2.871 9.098 1.58<br>529 0.000 0.000 0.827 5.736 4.741 4.651 2.853 8.797 1.85   |  |
| 217 8.150 26.739 -8.150 -26.739 14.779 0.301 95.930 2.037 5  | 3 4 3 3 114.551 1.538  | 538 0.000 0.000 0.824 7.079 5.833 4.745 2.887 8.613 2.27   | 13.442 0.203 0.226 6.665 1.129 7.666 2.985 57.489 0.000 0.00 |
| 218 8.200 26.903 -8.200 -26.903 16.384 0.334 104.700 2.039 5   | 3 4 3 3 114.551 1.547  | 547 0.000 0.000 0.822 7.848 6.447 5.127 3.133 9.593 2.25   | 51 14.837 0.200 0.220 7.479 1.256 8.480 2.943 54.744 0.000 0.000 0.000 0.000 0.000 0.90 0.409 2.395 1.289 12.894 9.593   |
| 219 8.250 27.067 -8.250 -27.067 18.475 0.350 103.270 1.894 6   | 4 5 4 4 114.551 1.557  | 557 0.000 0.000 0.819 7.079 5.798 5.561 3.416 10.872 2.06  | 69 16.919 0.175 0.191 8.800 1.461 9.801 2.878 50.617 0.000 30.374 -0.003 0.000 0.000 0.000 0.000 0.000 1.450 14.496 10.872   |
| 220 8.300 27.231 -8.300 -27.231 18.680 0.363 100.980 1.943 6   | 4 5 4 3 114.551 1.566  | 566 0.000 0.000 0.817 7.158 5.845 5.636 3.443 10.933 2.12  |  |
| 221 8.350 27.395 -8.350 -27.395 18.661 0.287 94.600 1.538 6  | 4 5 4 4 114.551 1.576<br>4 5 3 4 114.551 1.585   | 576 0.000 0.000 0.814 7.151 5.822 5.470 3.319 10.849 1.68<br>585 0.000 0.000 0.812 6.568 5.332 5.195 3.106 9.819 1.84  |  |
| 222 6.400 27.559 -6.400 -27.559 17.141 0.267 96.290 1.674 6<br>223 8.450 27.723 -8.450 -27.723 20.514 0.305 109.600 1.487 6  |  | 594 0.000 0.000 0.809 7.861 6.362 5.871 3.547 11.872 1.61  |  |
| 224 8.500 27.887 -8.500 -27.887 44.260 0.259 107.400 0.585 8   |  | 304 0.000 0.000 0.807 10.600 8.553 9.484 7.652 26.605 0.60   |  |
| 225 8.550 28.051 +8.550 -28.051 86.144 0.297 -7.320 0.345 9  |  | 512 0.002 0.051 0.805 16.505 13.283 16.048 12.915 52.445 0.35  | 51 84.531 -0.003 -0.003 52.588 8.275 53.588 1.817 5.000 55.544 37.645 -0.042 2.723 234.635 0.000 0.000 0.000 6.641 66.413 66.413   |
| 226 8.600 28.215 -8.600 -28.215 111.660 0.359 -8.040 0.322 9   | 6 9 6 6 124.097 1.624  | 518 0.007 0.215 0.803 21.394 17.190 19.975 16.050 68.056 0.32  | 26 110.036 -0.002 -0.002 68.215 10.721 69.215 1.702 5.000 62.936 38.877 -0.059 2.436 272.097 0.000 0.000 0.000 8.595 85.950 85.950   |
| 227 8.650 28.379 -8.650 -28.379 131.069 0.456 -3.310 0.348 9   | 6 9 6 6 124.097 1.634<br>6 9 6 6 124.097 1.645   | 523 0.012 0.379 0.802 25.113 20.147 23.076 18.512 79.805 0.35  | 522 129.438 -0.001 -0.001 79.876 12.586 80.876 1.685 5.000 67.485 39.635 0.079 2.302 301.814 0.000 0.000 0.000 10.073 100.733  |
| 228         8.700         28.543         -8.700         -28.543         174.203         0.880         -4.330         0.505         9           229         8.750         28.707         -8.750         -28.707         211.232         0.904         -4.520         0.428         9  | 6 9 6 6 124.097 1.645<br>6 9 6 6 124.097 1.655   | 528 0.017 0.544 0.801 33.377 26.735 30.439 24.382 106.062 0.51<br>533 0.022 0.708 0.800 40.472 32.368 35.595 28.467 128.416 0.43   | 10 172.559 -0.001 -0.001 106.156 16.702 107.156 16.33 4.914 75.595 40.987 -0.134 2.101 366.077 0.000 0.000 0.000 13.87 133.675 |
| 230 8.800 28.871 -8.800 -28.871 237.662 1.278 -4.550 0.538 9   | 6 9 6 6 124.097 1.665  | 338 0.027 0.872 0.799 45.536 36.361 40.278 32.163 144.158 0.54   | 42 235.997 -0.001 -0.001 144.261 22.782 145.261 1.541 3.434 84.409 42.456 -0.166 1.974 469.433 0.000 0.000 0.000 18.181 181.806 181.806  |
| 231 8.850 29.035 -8.850 -29.035 251.241 1.049 -4.650 0.418 10  | 6 10 6 6 127.279 1.675   | 543 0.032 1.036 0.797 40.115 31.982 41.432 33.032 151.965 0.42   | 20 249.566 -0.001 -0.001 152.073 24.083 153.073 1.456 2.236 85.957 42.714 -0.150 2.025 509.067 0.000 0.000 0.000 19.189 191.890 191.890  |
| 232 8.900 29.199 -8.900 -29.199 242.962 1.107 -4.550 0.456 10  |  | 548 0.037 1.200 0.796 38.793 30.878 40.513 32.247 146.443 0.45   | 59 241.277 -0.001 -0.001 146.552 23.289 147.552 1.491 2.707 84.950 42.546 -0.154 1.987 483.052 0.000 0.000 0.000 18.527 185.266 185.266  |
| 233 8.950 29.363 -8.950 -29.363 231.103 1.001 -4.380 0.433 9<br>234 9.000 29.527 -9.000 -29.527 215.683 0.661 -4.260 0.306 9   | 6 9 6 6 124.097 1.696<br>6 9 6 6 124.097 1.706   | 553  |  |
| 234 9.000 29.527 -9.000 -29.527 215.683 0.661 -4.260 0.306 9   | 6 9 6 6 124.097 1.706<br>6 9 6 6 124.097 1.716   | 559 0.048 1.528 0.794 41.325 32.791 35.409 28.097 129.071 0.30   |  |
| 235 9.000 29.851 -9.000 -29.855 159.381 1.046 -1.520 0.656 9   | 6 9 6 6 124.097 1.716  | 369 0.058 1.857 0.791 30.537 24.158 28.846 22.820 94.520 0.66  |  |
| 237 9.150 30.019 -9.150 -30.019 101.687 0.209 -2.090 0.206 9   | 6 9 6 6 124.097 1.737  | 574 0.063 2.021 0.790 19.483 15.390 18.014 14.229 59.743 0.20  |  |
| 238 9.200 30.183 -9.200 -30.183 56.821 1.090 -3.040 1.918 7  | 5 8 6 5 117.733 1.747  | 578 0.068 2.185 0.789 18.145 14.312 13.283 10.477 32.826 1.97  | 179 55.075 -0.003 -0.003 32.923 5.453 33.923 2.382 25.691 43.042 35.561 -0.143 3.395 192.986 0.000 0.000 0.000 4.294 42.936 42.936   |
| 239 9.250 30.347 -9.250 -30.347 61.231 1.510 -3.040 2.466 6<br>240 9.300 30.511 -9.300 -30.511 45.492 1.577 -2.930 3.467 5   | 4 8 6 4 114.551 1.756<br>4 8 5 3 114.551 1.766   | 583 0.073 2.349 0.788 23.464 18.483 14.620 11.517 35.356 2.53<br>587 0.078 2.513 0.787 21.791 17.143 12.530 7.455 25.928 3.60  | 39 59.476 -0.003 -0.003 35.456 5.875 36.456 2.429 27.596 45.147 35.912 -0.180 3.276 200.657 0.000 0.000 0.000 4.621 46.208 46.208 066 43.727 -0.004 -0.004 26.029 4.367 27.029 2.718 41.404 0.000 0.000 0.000 0.000 0.000 0.000 2.916 0.000 10.000 3.429 34.287 25.928   |
| 240 9.300 30.511 -9.300 -30.511 45.492 1.57/ -2.930 3.467 5<br>241 9.350 30.675 -9.350 -30.675 40.332 1.826 -2.860 4.527 4   | 4 8 5 3 114.551 1.766<br>3 8 5 3 114.551 1.775   | 387 0.078 2.513 0.787 21.791 17.143 12.530 7.455 25.928 3.60<br>391 0.084 2.677 0.786 25.759 20.240 11.866 7.003 22.805 4.73   | 06 43.727 -0.004 -0.004 25.029 4.367 27.029 2.718 41.404 0.000 0.000 0.000 0.000 2516 0.000 10.00 10.00 3.429 34.287 25.928 358 84.205 0.004 0.000 0.000 0.000 0.000 0.000 0.000 2.572 0.000 8.711 3.03 30.359 22.805  |
| 242 9.400 30.840 -9.400 -30.840 32.580 0.892 -1.580 2.738 6  | 4 7 5 4 114.551 1.784  | 396 0.089 2.842 0.785 12.485 9.797 9.269 5.396 18.169 2.89   | 96 30.796 -0.004 -0.004 18.250 3.126 19.250 2.778 44.720 0.000 32.880 -0.117 0.000 0.000 0.000 0.000 0.000 2.449 24.493 18.169   |
| 243 9.450 31.004 -9.450 -31.004 26.688 1.320 -0.390 4.946 3  | 3 7 5 3 111.369 1.794  | 700 0.094 3.006 0.784 25.567 20.039 8.729 5.002 14.651 5.30  | 02 24.895 -0.004 -0.004 14.713 2.558 15.713 3.015 59.498 0.000 0.000 0.000 0.000 1.660 0.000 4.396 2.004 20.039 14.651   |
| 244 9.500 31.168 -9.500 -31.168 28.131 0.997 -1.410 3.544 5  |  | 704 0.099 3.170 0.783 13.475 10.549 8.602 4.934 15.458 3.78  | 87 26.329 -0.005 -0.005 15.541 2.699 16.541 2.904 52.278 0.000 0.000 0.000 0.000 1.756 0.000 4.765 2.110 21.097 15.458   |
| 245 9.550 31.332 -9.550 -31.332 13.868 0.769 -0.340 5.545 3<br>246 9.600 31.496 -9.600 -31.496 9.929 0.379 6.250 3.817 3   | 3 6 4 2 111.369 1.812<br>3 5 3 2 111.369 1.821   | 708  | 778 12.056 -0.008 -0.010 7.128 13.30 8.128 3.312 82.075 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.516 1.039 10.388 7.061 1.74 8.108 0.009 0.011 4.687 0.933 5.687 3.373 87.346 0.000 0.000 0.000 0.000 0.000 0.000 0.541 0.011 1.049 0.743 7.429 4.738   |
| 246 9.600 31.496 -9.600 -31.496 9.929 0.379 6.250 3.817 3<br>247 9.650 31.660 -9.650 -31.660 8.887 0.221 10.750 2.487 4  | 3 5 3 2 111.309 1.821  | 716 0.114 3.662 0.780 5.676 4.427 3.632 1.755 4.114 3.13   | 7/4 6.106 0.009 0.011 4.507 0.935 5.507 5.373 0.940 0.000 0.000 0.000 0.000 0.000 0.001 0. |
| 248 9.700 31.824 -9.700 -31.824 9.495 0.254 15.170 2.675 4   | 3 5 3 3 114.551 1.840  | 721 0.119 3.826 0.779 6.064 4.724 3.832 1.875 4.451 3.31   | 18 7.655 0.037 0.046 4.245 0.864 5.245 3.315 82.353 0.000 0.000 0.000 0.000 0.511 0.044 0.990 0.709 7.086 4.451  |
| 249 9.750 31.988 -9.750 -31.988 9.555 0.182 18.440 1.905 5   | 3 5 3 3 114.551 1.849  | 725 0.125 3.991 0.778 4.577 3.561 3.639 1.777 4.470 2.36   |  |
| 250 9.800 32.152 -9.800 -32.152 7.453 0.140 22.840 1.879 5<br>251 9.850 32.316 -9.850 -32.316 8.597 0.138 28.360 1.605 5   | 3 4 3 3 114.551 1.859<br>3 4 3 3 114.551 1.868   | 729 0.130 4.155 0.777 3.570 2.774 3.150 1.428 3.237 2.50<br>733 0.135 4.319 0.776 4.118 3.196 3.333 1.572 3.884 2.05   |  |
| 251 9.850 32.316 -9.850 -32.316 8.597 0.138 28.360 1.605 5<br>252 9.900 32.480 -9.900 -32.480 9.403 0.177 35.780 1.882 5   | 3 4 3 3 114.551 1.868<br>3 4 3 3 114.551 1.878   | 733 0.135 4.319 0.776 4.118 3.196 3.333 1.572 3.884 2.05   |  |
|  |  | 729 0.140 4.492 0.775 4.504 2.402 2.510 1.726 4.222 2.25   | 52 7 527 0 404 0 420 2 720 0 704 4 724 2 250 75 022 0 000 0 000 0 000 0 502 0 422 0 055 0 508 6 052 4 222  |
|  | 3 4 3 3 114551 1887  | 738 0.140 4.483 0.775 4.504 3.492 3.610 1.736 4.333 2.35   |  |
| 254 10.000 32.808 -10.000 -32.808 9.285 0.112 47.230 1.206 5   | 3 4 3 3 114.551 1.896  | 742 0.145 4.647 0.774 4.775 3.697 3.628 1.763 4.642 1.86<br>746 0.150 4.811 0.773 4.447 3.439 3.365 1.602 4.233 1.51   | 68 8.083 0.115 0.142 3.982 0.831 4.982 3.175 71.094 0.000 0.000 0.000 0.000 0.000 0.539 0.144 1.029 0.739 7.394 4.642 1.000 7.399 0.143 0.179 3.474 0.748 4.475 3.170 70.652 0.000 0.000 0.000 0.000 0.000 0.000 0.483 0.166 0.947 0.688 6.878 4.233   |
| 254 10.000 32.808 -10.000 -32.808 9.285 0.112 47.230 1.206 5<br>255 10.050 32.972 -10.050 -32.972 9.652 0.142 74.080 1.471 5   |  | 742 0.145 4.647 0.774 4.775 3.697 3.628 1.763 4.642 1.86<br>746 0.150 4.811 0.773 4.447 3.439 3.365 1.602 4.233 1.751<br>751 0.155 4.975 0.772 4.624 3.571 3.548 1.699 4.423 1.83  | 88 8.083 0.115 0.142 3.982 0.831 4.982 3.175 71.594 0.000 0.000 0.000 0.000 0.000 0.539 0.144 1.029 0.739 7.394 4.642 1.000 0. |
| 254 10.000 32.808 -10.000 -32.808 9.285 0.112 47.230 1.206 5<br>255 10.560 32.972 -10.050 -32.972 9.652 0.112 47.230 1.206 5<br>256 10.100 33.138 -10.1000 -32.972 0.652 0.188 82.570 1.471 5<br>256 10.100 33.138 -10.1000 -33.138 12.575 0.188 82.570 1.495 5  | 3 4 3 3 114.551 1.896<br>3 4 3 3 114.551 1.906<br>3 4 3 3 114.551 1.915  | 742 0.145 4.547 0.774 4.775 3.697 3.628 1.763 4.642 1.86<br>745 0.150 4.811 0.773 4.447 3.439 3.365 1.602 4.233 1.515<br>755 0.155 4.975 0.772 4.624 3.571 3.548 1.689 4.428 1.88<br>755 0.160 5.140 0.771 6.024 4.647 4.225 2.136 6.078 1.76  | 888 8 803 0.115 0.142 3.962 0.881 4.882 3.175 7.1054 0.000 0.000 0.000 0.000 0.000 0.000 0.859 0.144 1.029 0.738 7.384 4.642 1.105 7.389 0.143 0.145 0 |
| 254 10.000 32.808 -10.000 -32.808 9.285 0.112 47.230 1.206 5 255 10.050 32.972 -10.050 32.972 9.652 0.142 74.080 1.471 5 256 10.100 33.136 -10.100 -33.136 12.575 0.188 82.570 1.495 5 257 10.150 33.300 -10.150 -33.300 10.549 0.195 94.430 1.848 5   | 3 4 3 3 114.551 1.896<br>3 4 3 3 114.551 1.906<br>3 4 3 3 114.551 1.915<br>3 4 3 3 114.551 1.925   | 742 0.145 4.647 0.774 4.775 3.697 3.628 1.783 4.642 1.88<br>746 0.150 4.811 0.773 4.447 3.439 3.365 1.602 4.233 1.51<br>757 0.155 4.975 0.772 4.624 3.571 3.548 1.699 4.423 1.83<br>759 0.160 5.140 0.771 6.024 4.647 4.252 2.136 6.078 1.78<br>759 0.166 5.304 0.770 5.053 3.839 3.891 1.888 4.908 2.28   | 88 8.88 0.115 0.142 3.952 0.831 4.952 3.175 7.1694 0.000 0.000 0.000 0.000 0.000 0.558 0.144 0.028 0.739 7.394 4.842 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.858 0.166 0.947 0.688 6.878 4.23 0.33 0.7.47 0.224 0.279 3.194 0.703 4.195 3.190 72.191 0.000 0.000 0.000 0.000 0.000 0.000 0.557 0.270 0.985 0.744 7.142 4.428 0.300 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.571 0.270 0.985 0.744 7.142 4.428 0.300 0.0 |
| 25c 10.000 32.808 - 10.000 32.808 9.285 0.112 47.200 12.06 5 5 5 5 10.000 32.808 10.000 32.808 0.287 0.142 72.00 12.06 5 5 5 5 10.000 33.136 - 10.100 33.136 12.575 0.188 82.570 1.495 5 5 5 10.100 33.136 - 10.100 33.136 12.575 0.188 82.570 1.495 5 5 5 10.500 33.304 0.101.00 33.304 10.599 0.159 94.30 13.48 5 5 5 10.200 33.344 10.200 33.484 5.99 0.182 11.500 1.820 1.820 5  | 3 4 3 3 114.551 1.896<br>3 4 3 3 114.551 1.906<br>3 4 3 3 114.551 1.915<br>3 4 3 3 114.551 1.925<br>3 4 3 3 114.551 1.925  | 72         72<   | 88 8.88 0.115 0.142 3.982 0.831 4.982 3.175 7.1694 0.000 0.000 0.000 0.000 0.000 0.000 0.588 0.144 1.028 0.738 7.394 4.642 1.076 7.388 0.141 0.178 3.474 0.748 4.475 3.170 7.5652 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.489 0.166 0.947 0.688 6.878 4.23 1.333 7.747 0.244 0.798 3.194 0.703 4.195 3.190 72.191 0.000 0.000 0.000 0.000 0.000 0.000 0.510 0.270 0.685 0.174 7.142 4.428 1.333 0.747 0.244 0.798 0.958 5.700 3.080 0.2484 0.000 0.000 0.000 0.000 0.000 0.000 0.010 0.071 0.020 1.388 0.293 9.294 0.078 1.000 0 |
| 256 10.000 22.888 - 10.000 32.988 9.285 0.112 47.230 12.06 5 55 10.656 3.2572 - 10.656 3.2972 68.56 0.142 74.666 1.471 5 55 10.656 3.2572 - 10.656 3.2972 68.56 0.142 74.666 1.471 5 56 10.100 33.136 - 10.100 3.31.36 12.575 0.188 82.570 1.485 5 575 10.150 33.306 - 10.1100 3.31.36 12.575 0.188 82.570 1.485 5 58 10.250 33.3464 1.0250 3.3464 0.056 0.182 11.550 1.882 5 55 10.250 33.648 1.0250 33.464 0.056 0.182 11.550 1.882 5 56 10.250 33.628 1.0250 33.648 9.767 0.137 12.1270 1.403 5 56 10.300 33.792 1.0330 3.3782 1.076 0.148 12.1150 1.469 5  | 3 4 3 3 114551 1.886<br>3 4 3 3 114551 1.906<br>3 4 3 3 114551 1.915<br>3 4 3 3 114551 1.915<br>3 3 3 3 114551 1.925<br>3 3 3 3 3 114551 1.934<br>3 3 3 3 3 114551 1.934   | 122   123   124  | 88 8 803 0.115 0.142 3.962 0.881 4.892 3.175 7.1054 0.000 0.000 0.000 0.000 0.000 0.585 0.144 1.026 0.738 7.384 4.642 1.000 0. |
| 254         0.0009         32.888         -0.0009         32.888         0.012         47.280         12.066         5           255         0.0585         2.3272         -10.680         32.972         456.85         -0.142         74.680         1.471         5           256         0.1009         33.158         -10.100         33.158         12.275         0.188         82.570         1.485         5           259         10.150         33.350         -10.150         33.300         10.150         84.480         1.846         5           259         10.250         33.464         -10.200         33.546         45.690         0.182         11.250         1.882         5           259         10.250         33.464         10.200         33.548         3.670         0.188         25.70         1.350         882         5           259         10.250         33.464         10.200         33.588         10.78         13.130         10.480         5           250         10.300         33.792         10.300         33.792         10.300         33.792         10.300         33.792         10.300         33.792         10.300         30.792         10.300   | 3         4         3         3         114.551         1896           3         4         3         3         114.551         1916           3         4         3         3         114.551         1915           3         4         3         3         114.551         1925           3         3         3         114.551         1983           3         3         3         114.551         1983           3         3         3         114.551         1983           3         3         3         114.551         1983           3         3         3         114.551         1982   | 722         O.145         4.657         O.774         4.775         3.697         3.628         1763         4.642         1.88           476         O.155         4.811         0.772         4.424         3.439         3.356         1.602         2.233         1.517           787         O.155         4.879         0.772         4.624         3.871         3.548         1.699         4.288         1.837           789         O.166         5.304         0.771         5.033         3.830         3.289         1.888         4.906         2.28           789         O.166         5.304         0.770         5.053         3.830         3.289         1.888         4.906         2.28           8         0.176         5.160         0.771         5.053         3.830         3.289         1.888         4.906         2.28           8         0.176         5.053         3.830         3.289         1.888         4.906         2.28           9         0.166         5.304         0.707         5.053         3.830         3.289         1.888         4.906         2.28           9         0.186         5.304         0.708         4.827   | 88 8 808 0.115 0.142 3.982 0.881 4.882 3.175 7.1094 0.000 0.000 0.000 0.000 0.558 0.144 1.029 0.739 7.394 4.642 1.000 0. |
| 254 07,0009 32,588 10,000 32,588 9,285 0.112 47,230 12,066 5 5 5 10,000 32,588 10,000 32,972 16,000 14,277 26,000 14,277 26,000 14,47 15 5 10,000 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,138 10,100 33,130 10,100 14,50 10,250 10,50 10,50 14,47 18,48 5 5 12,50 10,50 10,50 14,47 10,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 14,50 10,50 10,50 14,50 10,50 14,50 10,50 14,50 14,50 10,50 14, | 3 4 3 3 114551 1896<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1995<br>3 4 3 3 114551 1995<br>3 3 3 3 3 114551 1992<br>3 3 3 3 3 114551 1992<br>3 3 3 3 3 114551 1992   | 0.744   0.745   0.74   | 88         88         88         8         115         0.142         3.962         0.881         4.882         3.175         7.194         0.000   |
| 254 01009 22888 -10.000 32.888 0.385 0.112 47280 1206 5 255 01055 23272 10050 32.972 6585 0.142 74280 1206 5 256 01050 33.185 10100 33.186 12.975 0.188 22570 14.856 5 256 01000 33.185 10100 33.186 12.575 0.188 22570 14.856 5 257 01550 33.300 10150 33.300 12.575 0.188 22570 14.856 5 258 01200 33.464 10200 33.464 5.699 0.182 113.500 1882 5 259 01255 33.682 10250 33.684 5.699 0.182 113.500 1882 5 259 01255 33.362 10250 33.684 5.699 0.182 113.500 1882 5 250 01250 33.362 10250 33.688 9.76 0.187 113.90 1882 5 250 01250 33.3562 10250 33.688 9.76 0.187 113.90 1880 5 250 01350 33.992 10300 33.792 10076 0.148 123.190 1469 5 250 01350 33.992 10300 33.792 10776 0.187 122.90 170 0.50 170 170 170 170 170 170 170 170 170 17   | 3         4         3         3         114.551         1896           3         4         3         3         114.551         1916           3         4         3         3         114.551         1915           3         4         3         3         114.551         1925           3         3         3         114.551         1983           3         3         3         114.551         1983           3         3         3         114.551         1982           3         3         3         114.551         1982           3         3         3         114.551         1982           3         3         3         114.551         1982           3         3         3         114.551         1982           3         3         3         114.551         1982           3         3         3         114.551         1982   | 722         O.145         4.657         O.774         4.775         3.697         3.628         7.783         4.642         1.88           74         O.155         4.811         0.773         4.447         3.489         3.386         1602         2.233         1.515           751         O.155         4.975         0.772         4.642         3.571         3.548         1.699         4.428         1.837           759         O.166         5.304         0.771         6.624         4.647         2.285         2.138         6.078         1.78           769         O.166         5.304         0.770         5.653         3.890         3.881         1.888         4.906         2.28           760         O.177         5.653         3.890         3.891         1.888         4.906         2.28           760         0.176         5.832         0.798         4.678         3.596         3.599         1.888         4.906         2.28           770         1.682         0.798         4.678         3.596         3.599         1.888         4.989         3.481         1.888         4.989         3.481         1.888         4.981         2.481         1.78  | 188   8.683   0.115   0.142   3.982   0.881   4.882   3.175   7.1094   0.000   0.000   0.000   0.000   0.000   0.585   0.144   1.029   0.739   7.394   4.642   |
| 254         0.0009         32.888         -10.000         32.888         0.112         47.280         1.206         5           255         0.056         3.2672         10.680         3.2972         40.680         1.427         1.408         1.471         5           256         10.100         33.136         10.100         33.136         12.275         0.188         82.570         1.485         5           257         10.150         33.300         10.191         33.300         10.192         0.188         82.570         1.485         5           259         10.250         33.464         10.200         33.300         10.190         0.188         2.570         1.882         5           259         10.250         33.464         10.200         33.648         3.670         0.189         14.430         1.882         5           259         10.250         33.464         10.200         33.682         10.70         0.137         12.120         4.409         5           250         10.300         33.792         10.300         33.792         10.000         0.148         12.8190         1.409         5           250         10.300         33.120  | 3 4 3 3 114551 1896<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1995<br>3 4 3 3 114551 1995<br>3 3 3 3 3 114551 1992<br>3 3 3 3 3 114551 1992<br>3 3 3 3 3 114551 1992   | 722         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         1.88           744         O.155         4.811         0.773         4.447         3.489         3.356         1602         2.233         1.515           751         O.155         4.875         0.772         4.634         3.571         3.548         1.689         4.428         4.387           755         O.155         4.875         0.772         4.634         3.571         3.548         1.689         4.428         4.837           755         O.155         4.875         0.772         4.634         3.571         3.548         1.689         4.628         0.780         4.678         3.589         1.888         4.690         2.28         0.780         4.678         3.589         3.881         1.888         4.690         2.28         3.381         3.881         3.889         1.888         4.690         2.28         4.783         3.596         1.688         4.288         7.783         4.687         7.790         4.678         3.596         3.597         1.688         4.288         7.782         4.677         3.596         3.782         5.797         4.688 </td <td>  188   188</td>                               | 188    |
| 254 10.009 32.888 - 10.000 32.898 9.285 0.112 47.280 206 5 5 15 5 10.000 32.898 10.000 32.897 5 6.805 0.142 77.408 12.006 5 5 15 5 10.000 32.897 5 6.805 0.142 77.408 12.006 5 5 15 5 10.000 32.897 5 6.805 0.142 77.408 12.006 5 1.476 7 1.405 12.000 12.000 1.405 12.000 12.000 1.405 12.000 12.000 1.405 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12.000 12 | 3 4 3 3 114551 1896<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1995<br>3 4 3 3 114551 1995<br>3 3 3 3 114551 1995<br>3 3 3 3 114551 1993<br>3 3 3 3 1 114551 2009   | . 369  | 888         80.83         0.115         0.142         3.962         0.881         4.882         3.175         7.194         0.000         0  |
| 256 10,000 32,588 10,000 32,588 9,285 0.112 47,230 12,066 5 50,000 32,588 10,000 32,972 10,000 12,972 865 0.142 77,200 12,066 5 50,000 32,972 10,000 32,972 10,000 14,972 12,975 0.142 77,200 12,066 5 57,010 50 33,750 11,010 33,150 12,975 0.150 70,188 82,570 14,185 5 57,010 50 33,000 11,010 33,300 10,330 0.00 150,000 10,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 14,000 150,000 150,000 14,000 150,0 | \$ 4 3 3 114551 1886 \$ 4 3 3 114551 1886 \$ 5 4 3 3 114551 1886 \$ 5 4 3 3 114551 1815 \$ 5 4 3 3 114551 1815 \$ 5 3 3 3 114551 1815 \$ 3 3 3 3 114551 1814 \$ 3 3 3 114551 1815 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 3 1 1816 \$ 3 3 3 3 3 1 1816 \$ 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3   | 7/22         O.145         4.647         O.774         4.775         3.697         3.628         T/83         4.642         2.88           4/40         O.155         4.811         0.773         4.447         3.489         3.956         1602         2.233         1.517           7/57         O.155         4.875         0.772         4.624         3.571         3.568         1699         4.223         3.571           7/57         O.155         4.875         0.772         4.624         3.571         3.568         1699         4.228         4.887           7/59         O.166         5.394         0.770         5.053         3.880         3.891         1.888         4908         2.22           7/59         O.176         5.652         0.796         4.678         3.596         3.557         3.888         3.891         1.888         4908         2.22           7/79         0.186         5.394         0.770         5.053         3.893         3.891         1.888         4908         2.22           7/70         0.786         4.776         3.596         3.565         1.688         4.228         1.737         2.688         7.774         4.818   | 88         88         88         8         28         3         17         1094         0.000  |
| 254 10.000 32.8388 - 10.000 32.878 8 9.285 0.112 47.200 55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   | 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1916 3 4 3 3 114551 1916 3 4 3 3 114551 1916 3 4 3 3 114551 1916 3 3 3 3 3 114551 1934 3 3 3 3 3 114551 1934 3 3 3 3 3 114551 1932 3 3 3 3 3 114551 1932 3 3 3 3 3 114551 1932 3 3 3 3 3 114551 1932 3 3 3 3 3 114551 1932 3 3 3 3 3 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 3 1 114551 1932 3 3 3 3 1 114551 1932 3 3 3 3 3 1 114551 1932 3 3 3 3 3 1 114551 1932 3 3 3 3 3 1 114551 1932 3 3 3 3 3 3 1 114551 1932 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  | P/2         O.145         4.657         O.774         4.775         3.697         3.628         7.783         4.642         1.88           4/4         O.155         4.811         0.772         4.624         3.89         3.56         1.602         2.233         1.51           7/5         0.155         4.875         0.772         4.624         3.571         3.58         1.609         4.282         1.387           7/5         0.155         4.875         0.772         4.624         3.571         3.58         1.609         4.282         1.387           7/5         0.155         4.100         0.771         6.003         4.567         2.282         2.136         6.008         2.008         1.008         4.006         2.22         2.136         6.008         2.008         0.008         4.600         2.22         2.136         6.008         2.008         0.008         4.008         2.22         2.138         6.008         2.008         4.008         2.008         4.008         2.008         4.008         2.008         4.008         2.008         2.008         2.008         4.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008   | 888         8683         0.119         0.142         3.982         0.881         4.882         3.175         7.1094         0.000         0.000         0.000         0.000         0.000         0.585         0.114         4.282         0.739         7.384         6.482           133         7.747         0.224         0.729         3.194         0.736         0.000 </td   |
| 256 10,000 32,588 10,000 32,588 9,285 0.112 47,280 12,006 5 528 10,000 32,588 10,000 32,972 68,000 142 77,280 12,006 5 528 10,000 33,138 1.01,000 33,138 12,275 0.152 74,280 0.142 77,280 12,006 14,71 5 526 10,100 33,138 1.01,000 33,138 12,275 0.150 14,275 0.165 64,70 14,86 5 526 10,500 33,138 1.01,000 33,138 10,237 0.10 18,88 82,570 14,86 5 526 10,500 33,146 1.01,000 33,148 15,80 5 526 10,500 33,146 1.01,000 33,148 15,80 5 526 10,500 33,146 1.01,000 33,148 15,80 5 526 10,500 33,156 10,100 34,120 11,76 12,100 14,100 15,100 14,100 14,100 15,100 14,100  | \$ 4 3 3 114551 1886 \$ 4 3 3 114551 1886 \$ 5 4 3 3 114551 1886 \$ 5 4 3 3 114551 1815 \$ 5 4 3 3 114551 1815 \$ 5 3 3 3 114551 1815 \$ 3 3 3 3 114551 1814 \$ 3 3 3 114551 1815 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 3 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 1 114551 1816 \$ 3 3 3 3 1 1816 \$ 3 3 3 3 3 1 1816 \$ 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3   | 742         O.145         4.647         O.774         4.775         3.697         3.628         1783         4.642         2.88           449         O.150         4.811         0.773         4.447         3.489         3.356         1602         2.233         1.517           757         0.155         4.875         0.772         4.634         3.571         3.568         1699         4.223         1.818           755         0.160         5.140         0.771         4.634         3.571         3.568         1699         4.228         1.818           759         0.166         5.304         0.770         5.053         3.893         3.891         1.888         4906         2.22           768         0.177         5.682         0.796         4.678         3.596         3.569         1.688         4.238         1.381         3.584         1.899         1.783         3.489         2.28         2.389         2.88         3.297         1.828         4.398         2.29         3.283         3.891         1.888         4.369         2.792         4.818         3.569         1.688         4.228         1.782         4.228         1.782         4.228         1.782  | 88         88         88         8         28         3         17         7         39         0.00 <t< td=""></t<>  |
| 256 10,000 32,588 10,000 32,588 9,285 0.112 47,230 1206 5 258 10,550 32,572 10,000 32,572 5,555 0.142 74,080 1206 5 258 10,000 33,138 10,1000 33,138 12,575 0.142 74,080 12,675 5 258 10,100 33,138 110,100 33,138 12,575 0.142 74,080 12,675 5 258 10,200 33,148 110,200 33,130 10,151 10 | 3 4 3 3 114551 1896<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1996<br>3 4 3 3 114551 1995<br>3 4 3 3 114551 1995<br>3 3 3 3 114551 1995<br>3 3 3 3 114551 1993<br>3 3 3 3 114551 1993<br>3 3 3 3 114551 1992<br>3 3 3 3 1 114551 1992<br>3 3 3 3 1 114551 1993<br>3 3 3 1 114551 2009<br>3 3 3 3 1 114551 2009<br>3 3 3 3 1 114551 2009<br>3 3 3 3 1 114551 2009  | 722         O.145         4.647         O.774         4.775         3.697         3.628         1783         4.642         2.88           474         O.155         4.811         0.773         4.447         3.489         3.356         1602         2.233         1.517           7875         O.155         4.875         0.772         4.634         3.571         3.566         1609         4.223         1.517           7875         O.155         4.875         0.772         4.634         3.571         3.568         1699         4.228         1.88         0.788         0.778         4.624         3.571         3.568         1699         4.228         1.88         0.788         0.778         4.624         3.883         3.891         1.888         4.906         2.22         3.788         3.789         1.788         4.906         2.22         3.788         3.789         1.788         4.906         2.22         3.788         3.789         3.788         3.899         2.888         3.899         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889         3.889   | 188   1883   0.115   0.142   3.962   0.881   4.882   3.175   7.1054   0.000   0.000   0.000   0.000   0.000   0.585   0.144   1.029   0.738   7.384   0.462   1.000   0.000    |
| 254 07,000 32,888 - 10,000 32,888 9,285 0.112 47,230 55 258 10,555 32,972 10,556 32,972 56,552 0.142 74,280 14,755 258 10,100 33,136 - 10,100 33,136 12,575 0.188 22,570 14,145 5 258 10,100 33,136 - 10,100 33,136 12,575 0.188 22,570 14,145 5 258 10,200 33,146 10,200 33,864 16,969 0.195 94,430 18,48 5 258 10,200 33,464 10,200 33,868 9,767 0.182 11,1500 18,82 5 258 10,200 33,464 10,200 33,868 9,767 0.103 11,122,70 14,00 5 260 10,300 33,792 10,300 33,782 10,776 0.137 12,1270 14,00 5 260 10,300 33,792 10,300 33,792 10,076 0.148 123,130 14,69 5 260 10,300 33,792 10,300 33,792 10,076 0.148 123,130 14,69 5 260 10,300 33,792 10,300 33,792 10,076 0.148 123,130 14,69 5 260 10,300 33,792 10,300 33,792 10,776 0.185 12,780 17,765 5 260 10,300 33,726 10,300 34,760 10,300 10,300 10,776 15,700 17,766 10,77 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993  | 742         O.145         4.657         O.774         4.775         3.697         3.628         7.783         4.642         2.88           749         O.155         4.811         0.773         4.447         3.489         3.365         1602         2.233         1.515           751         O.155         4.975         0.772         4.663         3.571         3.548         1.699         4.282         3.871           759         O.166         5.504         0.771         6.502         4.647         2.285         2.138         6.078         1.787           759         O.166         5.504         0.770         5.053         3.890         1.888         4306         2.28           759         O.166         5.504         0.770         5.053         3.890         1.888         4306         2.28           759         O.166         5.504         0.770         5.053         3.890         3.890         1.888         4306         2.28           779         O.186         3.504         0.790         4.093         3.505         3.280         1.783         3.490         3.893         2.891         2.283         2.272         2.272         2.272         2.272  | 1888   1888   1888   1889      |
| 256 10.000 32.588 1-10.000 32.588 9.285 0.112 47.200 15.586 5.586 10.000 32.588 1-10.000 32.597 5.595 0.142 74.080 15.056 5.586 10.000 32.597 5.595 0.142 74.080 15.056 5.596 10.000 33.138 1-10.100 33.138 12.576 10.589 12.575 0.142 74.080 15.056 5.596 10.000 33.138 1-10.100 33.138 12.576 10.599 12.575 0.1586 12.576 10.580 15.000 1 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1990 3 3 3 3 1 114551 2096 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099  | 722         O.145         4.657         O.774         4.775         3.697         3.628         1783         4.642         2.88           446         0.150         4.811         0.773         4.447         3.489         3.356         1602         2.233         1.517           757         0.155         4.875         0.772         4.634         3.571         3.566         1609         4.223         1.517           757         0.155         4.875         0.772         4.634         3.571         3.568         1699         4.228         1.88         0.708         1.779         5.034         6.071         4.228         2.186         0.788         0.789         4.078         3.599         1.288         4.906         2.22         3.789         1.788         4.906         2.22         3.789         1.788         4.906         2.22         3.789         3.789         3.789         3.889         2.889         2.28         3.889<   | 1888   1883   10.115   10.142   3.982   1881   4.882   3.175   71.054   10.000   0.000   0.000   0.000   0.000   0.555   0.144   10.29   0.738   7.384   6.462   1.865   1.8   |
| 254 07,000 32,888 - 10,000 32,888 9,285 0.112 47,230 55 55 50,500 55 50,500 50, | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993  | 742         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           74         O.155         4.811         0.773         4.447         3.489         3.365         1602         2.233         1.515           751         O.155         4.975         0.772         4.642         3.571         3.548         1.699         4.223         1.515           755         O.160         5.710         0.771         6.624         4.671         2.285         2.138         6.078         1.787           759         O.166         5.334         0.770         5.653         3.890         3.881         1.888         4.306         2.28           768         O.177         5.653         3.890         3.881         1.888         4.306         2.28           779         0.166         5.334         0.770         5.653         3.890         3.891         1.888         4.306         2.28           780         0.176         5.832         0.798         4.078         3.596         3.596         1.888         4.306         2.22           780         0.186         5.300         0.797         4.478   | 188    |
| 256 10,000 32,588 10,000 32,588 0,285 0,112 47,230 206 5 258 10,550 32,572 10,550 32,572 5,555 0,142 74,280 206 5 259 10,100 33,138 110,100 33,138 12,575 0,142 74,280 10,47 15 259 10,100 33,138 110,100 33,138 12,576 10,589 82,570 14,885 5 259 10,250 33,346 10,200 33,360 10,550 10,589 34,430 1,848 5 259 10,250 33,464 10,200 33,464 16,65 10,150 11,17 12, | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1990 3 3 3 3 1 114551 2096 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099 3 3 3 3 1 114551 2099  | PRED         O.185         4.857         O.774         4.775         3.6697         3.628         1783         4.842         1.88           4.96         O.155         4.811         0.772         4.824         3.857         3.356         1.662         2.233         1.571           7.75         0.155         4.875         0.772         4.624         3.871         3.548         1.699         4.223         1.571           7.75         0.155         4.875         0.777         4.624         3.571         3.548         1.699         4.288         1.837           7.75         0.155         4.875         0.777         4.624         3.571         3.548         1.699         4.288         1.837           7.75         0.156         5.354         0.779         5.053         3.893         3.2891         1.888         4.506         2.282           7.77         0.165         5.354         0.779         5.053         3.893         3.2891         1.888         4.506         2.282           7.77         0.165         5.354         0.779         5.053         3.893         3.2891         1.888         4.506         2.282         2.789         4.281         3.784  | 1888   1888   1988      |
| 256 10,000 32,588 10,000 32,588 0,285 0,112 47,230 206 5 258 10,550 32,572 10,550 32,572 5,555 0,142 74,280 206 5 259 10,100 33,138 110,100 33,138 12,575 0,142 74,280 10,47 15 259 10,100 33,138 110,100 33,138 12,576 10,589 82,570 14,885 5 259 10,250 33,346 10,200 33,360 10,550 10,589 34,430 1,848 5 259 10,250 33,464 10,200 33,464 16,65 10,150 11,17 12, | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 2009 3 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2008  | 782         O.185         4.657         O.774         4.775         3.697         3.628         7.783         4.642         2.88           749         O.155         4.811         0.773         4.642         3.89         3.366         1.602         2.233         1.51           751         O.155         4.875         0.772         4.663         3.571         3.581         1.699         4.223         1.51           755         O.155         4.875         0.772         4.663         3.571         3.581         1.699         4.282         1.88           755         O.155         4.875         0.772         4.663         3.571         3.581         1.699         4.282         8.878           756         O.166         5.304         0.776         5.053         3.883         3.891         1.888         4366         2.22           757         O.166         5.304         0.776         5.053         3.883         3.891         1.888         4366         2.22           757         O.166         5.304         0.776         5.053         3.893         3.896         1.782         4.399         3.383         2.389         1.888         3.392         2.384<  | 1888   1888   1988      |
| 256 10 000 32 588 1 10 000 32 588 9 285 0 112 47 280 150 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 1 114551 1991 3 3 3 3 1 114551 2091 3 3 3 3 1 114551 2091 3 3 3 3 1 114551 2091 3 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093 3 3 3 1 114551 2093  | 722         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           744         O.155         4.811         0.773         4.447         3.489         3.566         1602         2.233         1.515           757         O.155         4.875         0.772         4.634         3.571         3.586         1609         4.223         3.517           757         O.155         4.875         0.772         4.634         3.571         3.548         1689         4.228         4.837           759         O.166         5.304         0.770         5.053         3.893         3.891         1.888         4.606         2.28           86         0.171         5.848         0.770         4.633         3.556         3.590         1.783         3.399         2.783         3.399         2.888         4.806         2.22           86         0.171         5.688         0.770         5.053         3.893         3.891         1.888         4.606         2.22           878         0.176         5.632         0.796         4.782         3.795         5.058         1.722         4.839         2.349<  | 1888   1888   1988      |
| 256 10 000 22 808 - 10 000 32 808 9 285 0 112 47 200 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5   | 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994  | 742         O.145         4.657         O.774         4.775         3.697         3.628         7.783         4.642         2.88           749         O.155         4.811         0.773         4.447         3.493         3.356         1602         2.233         1.515           751         O.155         4.875         0.772         4.663         3.571         3.588         1699         4.223         1.515           759         O.166         5.504         0.771         6.663         3.571         3.588         1699         4.288         1.887           759         O.166         5.504         0.771         5.653         3.883         3.891         1.888         4506         2.28           759         O.166         5.504         0.770         5.653         3.883         3.891         1.888         4506         2.28           779         O.166         5.504         0.770         5.653         3.883         3.891         1.888         4506         2.28           779         O.166         5.504         0.770         4.813         3.564         3.782         4.289         3.830         2.28         3.289         1.288         4.566         2.28 <td>  1888   1883   10.11</td>   | 1888   1883   10.11  |
| 256 10 000 32 588 10 10 000 32 588 9 285 0 112 47 230 1506 5 5 1558 10 580 257 10 1000 32 588 10 10 10 10 10 10 10 10 10 10 10 10 10   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 2009  | 722         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           744         O.155         4.811         0.773         4.447         3.489         3.566         1602         2.233         1.515           757         O.155         4.875         0.772         4.634         3.571         3.586         1609         4.223         3.517           757         O.155         4.875         0.772         4.634         3.571         3.586         1609         0.708         1.767           759         O.166         5.304         0.770         5.053         3.880         3.891         1.888         4606         2.28           86         0.171         5.868         0.770         4.633         3.556         3.590         1.783         3.439         2.38           86         0.171         5.688         0.770         5.053         3.880         3.891         1.888         4606         2.72           878         0.176         5.622         0.796         4.782         3.596         3.597         1.688         4.228         7.78         3.68         3.729         3.788         3.789   | 1888   1888   1988      |
| 256 10,000 32,508 10,000 32,508 9,295 0.112 47,200 1206 5 50,0000 32,508 10,000 32,972 10,000 142 77,400 1206 5 50,0000 32,508 10,000 32,972 10,000 142 77,400 1206 5 50,0000 33,136 10,100 33,136 12,275 0.142 77,400 1206 14,71 5 50,0000 33,136 11,000 33,136 12,275 0.150 10,000 82,74 14,70 14,85 5 50,0000 33,136 11,000 33,136 12,275 0.150 10,000 82,74 14,70 14,85 5 50,0000 33,136 11,000 33,136 10,000 14,70  | 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994 3 3 3 3 1 114551 1994  | 742         O.145         4.677         O.774         4.775         3.697         3.628         7783         4.642         2.88           749         O.155         4.811         0.773         4.477         3.493         3.356         1602         2.233         1.515           751         O.155         4.975         0.772         4.632         3.571         3.548         1699         4.223         1.515           755         O.155         4.975         0.772         4.632         3.571         3.548         1699         4.288         1.88           756         O.166         5.304         0.770         5.053         3.893         3.891         1.888         4306         2.28           757         O.166         5.304         0.770         5.053         3.893         3.891         1.888         4306         2.28           757         O.166         5.304         0.770         5.053         3.893         3.891         1.888         4306         2.28           777         O.186         3.894         4.987         3.893         3.898         3.898         3.898         3.898         3.898         3.898         3.898         3.898         3.898 <td>  1888   1888   1988   1989  </td>   | 1888   1888   1988   1989      |
| 256 10 0009 32 588 10 10 000 32 588 9 285 0 112 47 230 10 206 5 5 10 55 10 550 5 5 10 50 5 10 5  | 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1993  | 742         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           74         O.155         4.811         0.773         4.447         3.429         3.356         1602         2.233         1.515           75         O.155         4.875         0.772         4.634         3.571         3.548         1.699         4.223         1.515           75         O.155         4.875         0.772         4.634         3.571         3.548         1.699         4.287         8.277           75         O.155         4.875         0.770         5.653         3.891         3.888         4.896         2.28           75         O.166         5.334         0.770         5.653         3.891         3.888         4.896         2.28           76         0.175         3.683         0.789         4.678         3.356         3.569         1.898         4.288         3.39         3.881         1.888         4.306         2.22           77         0.186         5.076         0.789         4.678         3.359         3.596         1.898         4.288         7.789         4.488         7.789   | 1888   1888   1988   1988   1988   1988   1988   1889   1881   1889      |
| 256 10.009 32.588 1-10.000 32.588 9.285 0.112 47.290 55 258 10.001 32.588 1-10.000 32.597 56 259 10.001 31.58 1-10.000 32.597 56 259 10.001 31.58 1-10.000 32.597 56 259 10.100 33.138 1-10.100 33.138 12.570 1.42 74.080 1.471 5 259 10.100 33.138 1-10.100 33.138 12.570 1.42 74.080 1.471 5 250 10.100 33.138 1-10.1000 33.138 12.570 1.0158 12.570 1.885 5 259 10.250 33.464 1.0200 33.464 1.650 1.050 1 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 2009  | 722         O.185         4.6571         O.774         4.775         3.697         3.628         7.783         4.642         2.88           787         O.155         4.811         0.773         4.447         3.489         3.356         1.602         2.233         1.517           787         O.155         4.879         0.772         4.663         3.571         3.588         1.699         4.223         1.571           789         O.166         5.504         0.777         6.024         4.567         2.22         2.138         6.008         1.768         1.609         4.288         1.838         4.060         2.22         2.388         1.609         4.288         4.808         2.23         5.51         0.778         6.008         4.567         0.778         5.008         7.878         4.287         3.788         1.809         7.828         4.006         2.22         2.38         2.23         2.  | 1888   1888   1988      |
| 255   10,009   32,588   10,000   32,588   9,285   0.112   47,230   2.056   5   5   5   5   5   5   5   5   5   | 3 4 3 3 114551 1898 3 4 3 3 114551 1898 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1993  | 742         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           74         O.155         4.311         0.773         4.447         3.489         3.356         1602         2.233         1.515           75         O.155         4.375         0.772         4.634         3.571         3.548         1.699         4.282         3.871           75         O.155         4.375         0.772         4.634         3.571         3.548         1.699         4.282         0.887           759         O.166         5.334         0.770         5.653         3.893         3.881         1.888         4.360         2.28           83         O.171         5.653         3.891         3.881         4.888         4.369         2.28           83         O.171         5.653         3.891         3.881         4.884         3.392         2.38           83         O.171         5.653         3.896         3.597         1.888         4.369         2.28           84         O.176         5.653         3.891         3.881         3.881         3.381         3.381         3.381   | 1888   1888   1988   1988   1988   1988   1988   1888   1889   1888      |
| 15.55   10.500   32.588   10.000   32.588   9.285   0.112   47.280   1.265   5.585   10.585   32.572   32.572   | 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 2009  | 782         O.185         4.657         O.774         4.775         3.697         3.628         1783         4.642         2.88           781         0.155         4.871         0.774         4.775         3.697         3.628         1783         4.642         3.23         3.51         3.326         1.602         2.23         3.51         7.52         4.223         3.51         7.586         1.609         4.223         3.51         7.586         1.609         4.281         8.28         7.576         0.015         6.024         4.647         3.281         1.609         4.282         8.38         7.608         7.787         6.077         6.03         3.881         3.881         1.888         4.360         2.22         5.008         7.787         4.070         7.008         8.008         2.28         2.388 <td< td=""><td>  1888   1888   1988   1989  </td></td<> | 1888   1888   1988   1989      |
| 255   10,009   32,588   10,000   32,588   9,285   0.112   47,230   2.056   5   5   5   5   5   5   5   5   5   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 2009  | 742         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           74         O.155         4.311         0.773         4.447         3.489         3.356         1602         2.233         1.515           75         O.155         4.375         0.772         4.634         3.571         3.548         1.699         4.282         3.871           75         O.155         4.375         0.772         4.634         3.571         3.548         1.699         4.282         0.887           759         O.166         5.334         0.770         5.653         3.893         3.881         1.888         4.360         2.28           83         O.171         5.653         3.891         3.881         4.888         4.369         2.28           83         O.171         5.653         3.891         3.881         4.884         3.392         2.38           83         O.171         5.653         3.896         3.597         1.888         4.369         2.28           84         O.176         5.653         3.891         3.881         3.881         3.381         3.381         3.381   | 1888   1888   1988   1989   1988   1889      |
| 155   10,000   32,588   10,000   32,588   9,285   0,112   47,230   10,506   5   5   5   5   5   5   5   5   5  | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1991 3 3 3 3 1 114551 2009 3 3 3 3 1 114551 2130 3 3 3 1 114551 2131  | 742         O.145         4.647         O.774         4.775         3.697         3.628         7.783         4.642         2.88           751         O.155         4.871         0.772         4.634         3.571         3.56         1602         2.233         1.515           751         O.155         4.875         0.772         4.634         3.571         3.548         1.699         4.223         3.517           759         O.160         5.791         0.771         6.634         4.647         2.285         2.118         6.078         1.787           879         O.166         5.334         0.770         5.053         3.890         3.881         1.888         4.896         2.28           83         0.177         5.653         3.890         3.881         1.888         4.896         2.28           84         0.176         5.652         0.786         4.678         3.356         3.550         1.888         4.396         2.28           86         0.176         5.652         0.786         4.678         3.356         3.550         1.888         4.288         1.386         1.282         1.282         1.282         1.282         1.282         1.282<  | 1888   1888   1988      |
| 256 10 0009 32 588 10 10 000 32 588 2 325 0 112 47 230 1266 5 5 10 55 10 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 5 3 3 3 114551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1992 3 3 3 3 174551 1990 3 3 3 3 174551 1990 3 3 3 3 174551 1990 3 3 3 3 174551 1990 3 3 3 3 174551 1990 3 3 3 3 174551 1990 3 3 3 3 174551 1990  | 7/2         0.145         4.671         0.774         4.775         3.697         3.628         1783         4.642         2.88           7/4         0.155         4.811         0.773         4.475         3.89         3.26         1622         3.22         3.517         3.386         1622         2.23         3.517         3.386         1622         2.23         3.517         3.588         1699         4.288         3.871         3.588         1699         4.288         4.871         4.777         0.772         4.663         3.571         3.588         1699         4.288         4.887         7.772         4.663         3.571         3.588         1699         6.788         7.787         6.777         4.767         6.777         4.767         6.777         4.767         6.777         6.765         3.883         3.891         1.888         4.566         2.22         3.247         3.248         2.23         2.33         2.23 <td< td=""><td>  1888   1888   1988  </td></td<>          | 1888   1888   1988      |
| 256   10,009   32,586   10,000   32,586   9,285   0,112   47,280   2,066   5   5   5   5   5   5   5   5   5   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 5 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1990 3 3 3 3 114551 1990 3 3 3 3 1 114551 1990 3 3 3 3 1 114551 1990 3 3 3 3 1 114551 2009 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100  | PAZ         O.185         4.671         0.774         4.775         3.697         3.628         1783         4.642         2.887           4.96         0.155         4.811         0.772         4.624         3.89         3.56         1602         2.233         1.515           7.75         0.155         4.875         0.772         4.624         3.871         3.586         1609         4.223         1.517           7.75         0.155         4.875         0.777         4.624         3.571         3.588         1609         4.288         1.878           7.75         0.155         4.875         0.777         6.023         4.587         2.871         6.008         0.028         0.088         4.008         2.223         5.515         6.008         0.088         4.008         2.228         2.138         6.008         0.088         4.008         2.228         2.008         6.008         2.008         4.008         2.228         4.008         2.228         2.008         6.008         2.008         4.008         2.228         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.00   | 1888   1888   1988      |
| 255   10,000   32,508   10,000   32,508   9,255   0,112   47,230   10,506   5   5   5   5   5   5   5   5   5  | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1990 3 3 3 3 1 114551 2006 3 3 3 3 1 114551 2007 3 3 3 3 1 114551 200 | 7/2         0.145         4.671         0.774         4.775         3.697         3.628         1783         4.642         2.88           7/4         0.155         4.811         0.773         4.477         3.493         3.56         1602         2.233         1.515           7/5         0.155         4.879         0.772         4.634         3.571         3.548         1.699         4.282         3.571           7/5         0.155         4.879         0.777         6.624         4.674         2.282         2.138         6.078         1.787           7/5         0.165         5.304         0.770         5.053         3.893         3.891         1.888         4.306         2.287           7/7         0.166         5.304         0.770         5.053         3.893         3.891         1.888         4.306         2.287           7/7         0.165         5.304         0.770         5.053         3.893         3.891         1.888         4.306         2.297           7/7         0.165         5.304         4.077         3.893         3.595         3.596         1.894         4.297         3.483         3.598         3.994         3.997         3  | 1888   1888   1988   1989      |
| 256   10,009   32,586   10,000   32,586   9,285   0,112   47,280   2,066   5   5   5   5   5   5   5   5   5   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 5 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1995 3 3 3 3 114551 1990 3 3 3 3 114551 1990 3 3 3 3 1 114551 1990 3 3 3 3 1 114551 1990 3 3 3 3 1 114551 2009 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100 3 3 3 3 1 114551 2100  | PAZ         O.185         4.671         0.774         4.775         3.697         3.628         1783         4.642         2.887           4.96         0.155         4.811         0.772         4.624         3.89         3.56         1602         2.233         1.515           7.75         0.155         4.875         0.772         4.624         3.871         3.586         1609         4.223         1.517           7.75         0.155         4.875         0.777         4.624         3.571         3.588         1609         4.288         1.878           7.75         0.155         4.875         0.777         6.023         4.587         2.871         6.008         0.028         0.088         4.008         2.223         5.515         6.008         0.088         4.008         2.228         2.138         6.008         0.088         4.008         2.228         2.008         6.008         2.008         4.008         2.228         4.008         2.228         2.008         6.008         2.008         4.008         2.228         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.008         2.00   | 1888   1888   1988   1989      |
| 256 10,000 32,588 110,000 32,588 9,285 0.112 47,280 150 5 5 155 105 105 105 105 105 105 10   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 3 3 114551 1997 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 1992 3 3 3 3 1 114551 2006 3 3 3 3 1 114551 2007 3 3 3 3 1 114551 200 | 782         O.185         4.657         O.774         4.775         3.697         3.628         1783         4.642         2.88           761         O.155         4.871         0.774         4.775         3.697         3.628         1783         4.642         3.233         1502         2.233         1.515           761         O.155         4.875         0.772         4.663         3.571         3.588         1689         4.288         1.875           765         O.155         4.875         0.772         4.663         3.571         3.588         1689         6.428         1.88           767         O.166         5.304         0.771         5.053         3.881         3.888         3.608         2.88           767         O.166         5.304         0.771         5.053         3.883         3.891         1.888         4360         2.28           779         O.166         5.304         0.771         5.053         3.883         3.891         1.888         4360         2.22           779         O.181         5.798         0.786         4.827         3.796         1.872         4.242         3.243         3.898         1.888         4.506 <td>  1888   1888   1988  </td>   | 1888   1888   1988      |
| 256 10,000 32,588 10,1000 32,888 2,385 0.112 47,288 10,505 5 258 10,000 32,588 10,1000 33,189 12,975 0.142 74,288 10,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,088 12,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,080 12,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,080 12,475 13,485 5 258 10,000 33,189 1.1000 33,189 12,975 0.159 12,975 13,880 5 258 10,000 33,144 1.1000 33,148 12,000 10,000 11 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 4 3 3 114551 1996 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 114551 1991 3 3 3 3 1 114551 1991 3 3 3 3 1 114551 1991 3 3 3 3 1 114551 2006 3 3 3 3 1 114551 2006 3 3 3 3 1 114551 2007  | PRED         OHIS         4.671         O774         4.775         3.697         3.628         1783         4.642         2.887           478         0.1550         4.811         0.772         4.624         3.871         3.586         1602         2.233         1.515           775         0.155         4.875         0.777         4.624         3.871         3.586         1609         4.282         3.571         3.588         1609         4.628         3.571         3.588         1609         4.628         3.571         3.588         1609         4.628         3.571         3.588         1.699         4.628         3.571         3.588         1.699         4.628         3.571         3.588         1.699         4.628         3.571         3.588         3.699         1.688         4.606         2.282         7.790         6.050         3.588         3.599         1.688         4.606         2.282         7.790         6.050         3.583         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.680         3.789         4.628         3.722         3.788  | 1888   1888   0.115  |
| 256 10 0009 32 588 1 10 0009 32 588 2 50 112 47 230 1056 5 5 1055 1055 1055 1055 1055 1055   | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1209 3 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100  | PAZ         O.185         4.671         O.774         4.775         3.697         3.628         1783         4.642         2.88           176         O.155         4.871         0.774         4.775         3.697         3.628         1783         4.642         3.233         1502         2.233         1.515           176         O.155         4.875         0.772         4.663         3.571         3.588         1689         4.288         4.878           176         O.155         4.875         0.772         4.663         3.571         3.588         1689         6.428         8.878           756         O.166         5.504         0.771         5.653         3.883         3.881         1888         4506         2.28           757         O.166         5.504         0.771         5.653         3.883         3.881         1888         4506         2.28           779         O.166         5.504         0.770         5.653         3.883         3.889         1.888         4506         2.22           779         O.181         5.789         0.786         4.827         3.786         3.786         3.782         4.389         2.388         3.889  | 1888   1888   1989      |
| 256 10,000 32,588 10,1000 32,888 2,385 0.112 47,288 10,505 5 258 10,000 32,588 10,1000 33,189 12,975 0.142 74,288 10,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,088 12,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,080 12,471 5 258 10,000 33,189 1.1000 33,189 12,975 0.142 74,080 12,475 13,485 5 258 10,000 33,189 1.1000 33,189 12,975 0.159 12,975 13,880 5 258 10,000 33,144 1.1000 33,148 12,000 10,000 11 | 3 4 3 3 114551 1896 3 4 3 3 114551 1896 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 4 3 3 114551 1995 3 3 4 3 3 114551 1995 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 3 114551 1993 3 3 3 1 114551 1993 3 3 3 1 114551 1209 3 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2009 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100 3 3 3 1 114551 2100  | PRED         OHIS         4.671         O774         4.775         3.697         3.628         1783         4.642         2.887           478         0.1550         4.811         0.772         4.624         3.871         3.586         1602         2.233         1.515           775         0.155         4.875         0.777         4.624         3.871         3.586         1609         4.282         3.571         3.588         1609         4.628         3.571         3.588         1609         4.628         3.571         3.588         1609         4.628         3.571         3.588         1.699         4.628         3.571         3.588         1.699         4.628         3.571         3.588         1.699         4.628         3.571         3.588         3.699         1.688         4.606         2.282         7.790         6.050         3.588         3.599         1.688         4.606         2.282         7.790         6.050         3.583         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.589         3.680         3.789         4.628         3.722         3.788  | 1888   1888   1988   1988   1988   1989   1988   1989   1988   1989      |

| Α   | B C D  | E F G H I   | J                                     | K   | L M   | N  | 0  | Р  | Q  | R  | S T   | U  | V  | W  | Х   | Y Z   | AA  | AB   | AC  | AD  | AE   | AF  | AG   | AH   | Al   | AJ   | AK  | AL   | AM   | AN   | AO   | AP   | AQ   | AR  |
|---|--|---|---------------------------------------|---|---|--|--|--|--|--|---|--|--|--|---|---|---|--|---|---|--|---|--|--|--|--|---|--|--|--|--|--|--|---|
| 1   | ConeTec CPT Interpretations  | IzW Version 1.19 - Dec 18 2012  |                                       | 1   |   |  | -  |  |  |  |   |  |  |  |   |   |   | -  | -   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 3   | DAS Version: W47   | ZW Version 1.15 * Dec 10 20 12  |                                       | 1   |   |  | 1  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  | _  |   |
| 4   | Interpretation Format:   | All but Liquefaction Parameters (NLI)   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 5   | Run ID:  | 1367593895<br>13-54031  |                                       |   |   |  | 1  |  |  |  |   |  |  |  |   |   |   |  |   | -   | 1  |   |  |  |  |  |   |  |  |  |  |  | -  |   |
| 7   | Client   | Schnabel  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 8   | Project:<br>Facility:  | James River Bank Stabilization  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 10  | Sounding ID:   | James River Bank Stabilization<br>CPT-04  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  | _  |   |
| 11  | Cone ID:   | 184:T1500F15U500  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 12  | Operator:<br>CPT Date:   | BK-AS<br>May-02-2013  |                                       | 1   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 14  | CPT Time:  | 11:53   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 15  | CPT File:  | 13-54031_CP04.COR   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 17  | Tip Units:   | tsf   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  | _  |   |
| 18  | Sleeve Units:  | tsf   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 19  | PP Units:<br>Tip Conversion to bar:  | ft 0.9580   |                                       | 4   |   | -  | -  |  |  |  |   | _  |  |  |   |   | +   | -  | -   |   | -  |   |  |  |  |  |   |  |  |  |  | -  |  |   |
| 21  | Sleeve Conversion to bar:  | 0.9580  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 22  | PP Conversion to meters:   | 0.3050  |                                       |   |   |  | 1  |  |  |  |   |  |  |  |   |   |   |  |   |   | 1  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 24  |  | N/A   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 25  | Col 5 (Extra Module) Units   | N/A   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 26  | Coord Source:  | GPS   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 28  | Coord Type:  | LATLONG   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 29  | UTM Zone:<br>Easting / Long:   | N/A<br>-76 457745   |                                       | 1   |   | 1  |  |  |  |  |   |  |  |  |   |   | _   | 1  |   |   |  |   |  | -  |  |  |   |  |  | $\Box$   |  | -  | -  |   |
| 31  | Northing / Lat:  | 37.020066   |                                       | 1   |   | 1  | 1  |  | + +  |  |   |  | -  |  |   |   | +   | 1  | 1   | <b>1</b>  | <b>-</b>   |   |  |  |  |  |   |  |  |  |  |  | -+   |   |
| 32  | Elevation:   | 0.000   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 33  | Tip Net Area Ratio:  | 0.80  |                                       | 1   |   | 1  | 1  |  | -  |  |   | -  | -  |  |   |   | 1   | 1  | 1   | l   | -  |   |  |  |  | -  |   | 1  | -  |  |  | - +  | -+   |   |
| 35  | Unit Weight of Soil Base:  | Based on Soil Zones   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 36  | Unit Weight of Soil (Def):<br>Unit Weight of Water:  | 19.00 kN/m*3 120.91 pcf<br>9.81 kN/m*3 62.43 pcf  | -                                     | -   |   | -  | -  |  |  |  |   |  |  |  |   |   | +   | -  | 1   | -   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 38  | Equilibrium U Profile Used:  | No  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 39  | Soil Unit Weight Profile Used:<br>Water Table  | No 7.62 m 25.00 ft  | -                                     | -   |   | 1  | _  |  |  |  |   |  |  |  |   |   | _   | 1  |   |   |  |   |  | -  |  |  |   |  |  | $\Box$   |  | -  | -  |   |
| 41  | Averaging Interval:  | 0.00 m 0.00 ft  | +                                     | 1   |   |  | 1  |  |  |  |   |  |  |  |   |   | 1   | 1  | 1   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 42  | Su Factors Nkt and Ndu:  | 15.0 8.0  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 44  | Cn Exp. and Limits:  | 0.50 0.00 1.70  | +                                     |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  | _  |   |
| 45  | Qc1 Exp. and Limits:   | 0.50 0.00 1.70<br>1.20  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 46  | State Parameter M:<br>NC Su / p':  | 0.30  | +-                                    |   |   |  | -  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 48  | Relative Density Method:   | All Sands - Jamilokowski (1985)   | -                                     |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 49  | Phi Angle Method:<br>Youngs Modulus Sand Type:   | Kulhawy and Mayne (1990)<br>Recent  |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
|   |  |   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   | 1  | -   | 1   |  |   |  |  |  |  |   | 1  | 1  |  | $\vdash$   | _  | -  | _   |
| 51  | N160lc Method:   | Based on qc1n   |                                       |   |   |  |  |  |  |  |   |  |  |  |   |   |   |  |   |   |  |   |  |  |  |  |   |  |  |  |  |  |  |   |
| 51<br>52<br>53 Denth  | N160lc Method:  Depth Elev Elev  |   | T SBTn                                | SBT Bo I SI   | BTBqn   | Unit Wt.   | TStrese  | EStrace  | Equil  | Equil v  | Cn N/6  | 0) N1(60   | ) N60 (Ie)   | N160 (Ic)  | Norm: Or  | Norm: Fr Net at   | Delta I I/ot  | Bo   | Q(1-Rn)   | GA .  | geNorm   | le  | FC   | Dr   | Phi  |  | Es/nt   | Fs   | Su /Nkn  | Su (Ndu)   | OCR  | ac1 (Cn)   | oc1  | gc1n  |
| 51<br>52<br>53 Depth<br>54 m  | Depth Elev Elev  | Avg qt Avg fs Avg u Avg Rf SB*  | T SBTn                                | SBT Bq Si   | BTBqn   | pcf  | TStress<br>tsf   | tsf  | tsf  | ft   | Cn N(6  | of bpf   | bpf  | bpf  | Norm: Qt  | % tsf   |   |  | Q(1-Bq)   | qe<br>MPa   | qeNorm   | le  | FC<br>%  | Dr<br>%  | deg  |  | Es/qt   | Es<br>tsf  | Su (Nkt)   | tsf  |  | MPa  | qc1  | qc1n  |
| 51<br>52<br>53 Depth<br>54 m<br>55 0.050  | Depth Elev Elev<br>ft m ft<br>0.164 -0.050 -0.164  | Avg qt Avg fs Avg u Avg Rf SB*<br>tsf tsf ft %<br>4 10.780 0.125 3.210 1.169 5  | T SBTn                                | SBT Bq Si   | BT Bqn 0 0  | pcf<br>114.551   | tsf<br>0.009   | tsf<br>0.009   | tsf<br>0.000   | ft<br>0.000  | 1.700 5.1   | of bpf<br>64 8.778   | bpf<br>3 2.755   | bpf<br>4.684   | 1146.475  | % tsf   | 0.009   | 0.009  | 1135.806  | MPa<br>1.023  |  |   |  | Dr<br>%<br>0.000<br>82 915   | deg<br>0.000   | 0.000  | 0.000   | tsf<br>0.000   | tsf<br>0.718   | tsf<br>0.013   | 10.000   | MPa<br>1.756   | 17.556   | 17.556  |
| 56 0.100<br>57 0.150  | Depth Elev Elev<br>ft m ft<br>0.164 -0.050 -0.164<br>0.328 -0.100 -0.328<br>0.492 -0.150 -0.492  | Avg qt Avg fs Avg u Avg Rf SB'<br>tsf tsf ft %<br>4 10.780 0.126 3.210 1.169 5<br>2 48.040 0.253 3.280 0.527 8  |                                       |   | BT Bqn 0 0 0 0 0 0 0 0 0 0  | pcf<br>114.551<br>114.551<br>120.915   | tsf<br>0.009<br>0.019<br>0.028   | 0.009<br>0.019<br>0.028  | 0.000<br>0.000<br>0.000  | ft<br>0.000<br>0.000<br>0.000  | 1.700 5.1<br>1.700 9.2<br>1.700 11.1  | of bpf<br>64 8.778<br>61 15.74<br>506 19.56  | bpf<br>3 2.755<br>4 5.363<br>0 9.012   | bpf<br>4.684<br>9.117<br>15.321  | 1146.475<br>1285.247<br>1687.909  | % tsf<br>1.170 10.77<br>1.118 24.14<br>0.527 48.01  | 0.009<br>0.004<br>0.002   | 0.009<br>0.004<br>0.002  | 1135.806<br>1280.594<br>1684.309  | MPa<br>1.023<br>2.307<br>4.592  | 1281.595<br>1685.310   | 2.264<br>1.836  | 21.201<br>8.917  | 82.915<br>0.000  | deg<br>0.000<br>35.146<br>38.428   | -0.443<br>-0.384   | 0.000<br>3.315<br>2.362   | 0.000<br>80.145<br>113.497   | 0.718<br>0.000<br>0.000  | tsf<br>0.013<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824   | 17.556<br>39.359<br>78.239   | 17.556<br>39.359<br>78.239  |
| 56 0.100<br>57 0.150<br>58 0.200  | Depth   Elev   Elev  | Avg qt Avg ls Avg u Avg Rf S8*<br>tsf tsf   | 0                                     | 8   | 0 0   | pcf<br>114.551<br>114.551<br>120.915<br>120.915  | tsf<br>1 0.009<br>1 0.019<br>5 0.028<br>5 0.038  | 0.009<br>0.019<br>0.028<br>0.038   | tsf<br>0.000<br>0.000<br>0.000<br>0.000  | ft<br>0.000<br>0.000<br>0.000<br>0.000   | 1.700 5.1<br>1.700 9.2<br>1.700 11.1<br>1.700 16.1  | of bpf<br>64 8.778<br>961 15.74<br>506 19.56<br>094 27.36  | bpf<br>3 2.755<br>4 5.363<br>0 9.012<br>0 12.056   | bpf<br>4.684<br>9.117<br>15.321<br>20.496  | 1146.475<br>1285.247<br>1687.909<br>1750.741  | % tsf<br>1.170 10.77<br>1.118 24.149<br>0.527 48.011<br>0.521 67.16   | 0.009<br>0.004<br>0.002<br>0.002  | 0.009<br>0.004<br>0.002<br>0.002   | 1135.806<br>1280.594<br>1684.309<br>1746.981  | MPa<br>1.023<br>2.307<br>4.592<br>6.424   | 1281.595<br>1685.310<br>1747.982   | 2.264<br>1.836<br>1.710   | 21.201<br>8.917<br>6.312   | 82.915<br>0.000<br>0.000   | deg<br>0.000<br>35.146<br>38.428<br>40.031   | -0.443<br>-0.384<br>-0.386   | 0.000<br>3.315<br>2.362<br>2.090  | tsf<br>0.000<br>80.145<br>113.497<br>140.494   | 0.718<br>0.000<br>0.000<br>0.000   | tsf<br>0.013<br>0.000<br>0.000<br>0.000  | 10.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944   | 17.556<br>39.359<br>78.239<br>109.440  | 17.556<br>39.359<br>78.239<br>109.440   |
| 56 0.100<br>57 0.150  | Depth Elev Elev ft m ft 0.164 -0.050 -0.164 -0.050 -0.164 -0.328 -0.100 -0.328 -0.150 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.200 -0.656 -0.656 -0.200 -0.656  | Avg qt Avg fs Avg u Avg Rt SS<br>tef tef te f 8<br>8 24.167 0.270 2.3210 1.169 5<br>8 24.167 0.270 2.800 1.117 6<br>6 67.199 0.350 4.620 0.521 8<br>0 73.034 0.527 8.610 0.722 8<br>4 65.888 0.358 4.550 0.522 8  | 0<br>0<br>0                           | 8 8   |   | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915   | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058  | tsf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | by 1.700 5.1<br>1.700 9.2<br>1.700 11.3<br>1.700 16.0<br>1.700 17.0<br>1.700 15.0   | of bpf<br>64 8.770<br>661 15.74<br>506 19.56<br>094 27.36<br>492 29.73<br>780 26.82  | bpf<br>3 2.755<br>4 5.363<br>0 9.012<br>0 12.056<br>6 13.347<br>16 11.892  | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215  | % tsf<br>1.170 10.77<br>1.118 24.14<br>0.527 48.01<br>0.521 67.16<br>0.722 72.98<br>0.544 65.83   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.004<br>0.002   | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784  | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646   | 82.915<br>0.000<br>0.000<br>0.000  | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429   | -0.443<br>-0.384<br>-0.386<br>-0.406   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950  | tsf<br>0.718<br>0.000<br>0.000<br>0.000<br>0.000   | tsf<br>0.013<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894   | 17.556<br>39.359<br>78.239<br>109.440  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943  |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350  | Depth Elev Elev ft m ft ft 0.164 -0.050 -0.164 0.328 -0.100 -0.328 0.492 0.492 -0.150 -0.492 0.656 -0.200 -0.856 0.820 -0.250 -0.820 0.984 -0.300 -0.984 1.148 -0.350 -1.350 -0.350  | Ang qt Ang fs Ang u Ang fd SS at the first ft   | 0<br>0<br>0<br>0<br>0<br>0<br>7       | 8<br>8<br>8   | 0 0<br>0 0<br>0 0<br>7 8  | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915  | tsf 0.009 0.019 0.028 0.038 0.048 0.058 0.068  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058  | tsf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | 1,700 5.1<br>1,700 9.2<br>1,700 11.3<br>1,700 16.3<br>1,700 17.4<br>1,700 15.<br>1,700 12.9   | of bpf<br>64 8.770<br>661 15.74<br>506 19.56<br>094 27.36<br>492 29.73<br>780 26.82<br>960 22.03   | bpf<br>3 2.755<br>4 5.363<br>0 9.012<br>0 12.056<br>6 13.347<br>16 11.892<br>2 10.308  | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486   | % tsf<br>1.170 10.77<br>1.118 24.14!<br>0.527 48.01:<br>0.521 67.16!<br>0.722 72.98!<br>0.544 65.83!<br>0.753 54.04!  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003  | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066  | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878  | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789  | tsf<br>0.718<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | tsf<br>0.013<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450  | Depth Elev Elev R m R 0.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.164 -0.050 -0.056 -0 | Avg qt Avg fs Avg u Avg Rd S8<br>44 40.780 0.720 0.2200 1.119 5<br>82 24.167 0.270 2.200 1.117 6<br>66 67.199 0.350 4.600 0.527 8<br>66 67.199 0.350 4.600 0.527 8.600 0.722 8<br>67 37.99 0.350 4.600 0.521 8.700 0.722 8<br>68 67.199 0.350 4.600 0.521 8.600 0.722 8<br>68 67.199 0.350 4.600 0.521 8.600 0.722 8<br>8 65.88 0.358 4.550 0.543 8<br>8 54.113 0.075 2.280 0.752 8<br>9 5.520 0.458 1.1910 1.005 7<br>9 5.520 0.458 1.1910 1.005 1.005 7<br>9 5.520 0.458 1.1910 1.005 1 | 0<br>0<br>0<br>0<br>0<br>0<br>7       | 8<br>8<br>8<br>8  | 0 0<br>0 0<br>0 0   | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733  | tsf 0.009 0.019 0.028 0.038 0.058 0.068 0.088 0.088  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058<br>0.068<br>0.078  | tsf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | 1.700 5.1<br>1.700 9.2<br>1.700 11.3<br>1.700 16.3<br>1.700 17.4<br>1.700 15.<br>1.700 12.<br>1.700 14.<br>1.700 14.  | bpf bpf bpf 64 8.771 661 15.74 660 19.56 6094 27.36 6492 29.73 6780 26.82 6780 24.56 6470 19.50  | bpf<br>3 2.755<br>4 5.363<br>10 9.012<br>10 12.056<br>16 13.347<br>16 11.892<br>10.308<br>16 9.079<br>10 7.680   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264   | % tsf<br>1.170 10.77<br>1.118 24.14<br>0.527 48.01<br>0.521 67.16<br>0.722 72.98<br>0.544 65.83<br>0.753 54.04<br>1.007 45.13<br>1.359 35.83  | 0.009<br>0.004<br>2.0.002<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>4.0.001   | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>0.001   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719  | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175  | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250<br>2.425<br>2.714   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513   | tsf 0.718 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | bsf 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499   |
| 56 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500  | Depth Elev Elev R m R m R m R m R m R m R m R m R m R  | Avg qt Avg fs Avg u Avg Rf SB gt fs   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8<br>8<br>8<br>8<br>8<br>7  | 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8   | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733   | tsf 0.009 0.019 0.028 0.038 0.058 0.068 0.078 0.088 0.097  | 1sf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058<br>0.068<br>0.068<br>0.078   | 1sf<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | ft 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | bi   bi   1.700   5.1   1.700   5.1   1.700   9.2   1.700   11.1   1.700   16.1   1.700   17.2   1.700   12.1   1.700   14.1   1.700   14.1   1.700   9.6   | bpf bpf bpf 64 8.771 15.74 15.74 15.75 15.74 15.74 15.75 15.74 15.76 19.56 19.56 19.56 19.56 19.57 15.78 15. | bpf<br>8 2.755<br>4 5.363<br>10 9.012<br>10 12.056<br>16 13.347<br>11.892<br>10 10.308<br>10 9.079<br>10 7.680<br>19 6.655   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082  | % tsf 1.170 10.77 1.118 24.14 0.527 48.01 0.521 67.16 0.722 72.98 0.544 65.83 0.753 54.04 1.007 45.17 1.359 30.24   | 1 0.009<br>9 0.004<br>2 0.002<br>0 0.002<br>6 0.004<br>0 0.002<br>5 0.003<br>8 0.001  | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>0.001<br>0.001  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218  | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250<br>2.425<br>2.714<br>2.959  | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513<br>89.814   | tsf 0.718 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | bsf 0.013 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941   | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450  | Depth Elev Elev R m R m R m R m R m R m R m R m R m R  | Ang qt Ang fs Ang u Ang fd SS and fs Ang qt Ang fd M SS and fs Ang u Ang fd M SS and fs Ang fd M SS and fs Ang fd M SS and fs Ang fd M SS                           | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8<br>8<br>8<br>8<br>8<br>7  | 0 0<br>0 0<br>0 0<br>7 8<br>7 8<br>7 8  | pef<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733  | tsf 0.009 0.019 0.028 0.038 0.058 0.058 0.078 0.088 0.098 0.097 0.107  | 1sf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058<br>0.068<br>0.068<br>0.078   | 18f<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | ft 0.000   | 1.700 5.1<br>1.700 9.2<br>1.700 11.3<br>1.700 16.3<br>1.700 17.4<br>1.700 15.<br>1.700 12.<br>1.700 14.<br>1.700 14.  | bpf 64 8.771 664 8.771 661 15.74 661 15.74 506 19.56 994 27.36 992 29.73 780 26.82 9960 22.03 450 24.56 470 19.50 888 16.46 405 17.68  | bpf<br>8 2.755<br>4 5.363<br>10 9.012<br>12.056<br>16 13.347<br>16 11.892<br>10.308<br>16 9.079<br>10 7.680<br>10 9.655<br>10 9.655<br>10 9.655  | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897   | % tsf<br>1.170 10.77<br>1.118 24.141<br>0.527 48.01<br>0.521 67.161<br>0.722 72.981<br>0.544 65.83<br>0.753 54.041<br>1.007 45.17<br>1.359 30.241<br>1.195 32.471<br>1.293 28.761   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.001<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.002   | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>0.001<br>0.001<br>0.003   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389  | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898<br>3.115<br>2.773   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.312<br>-0.302   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250<br>2.425<br>2.714<br>2.959<br>2.853<br>3.035  | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513<br>89.814<br>92.987<br>87.672   | tsf 0.718 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | bsf 0.013 0.000 0. | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703   | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029   |
| 56 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500 65 0.600 67 0.650  | Depth   Elev     | Avg ct Avg fs Avg u Avg H SB 4 10 780 0 120 3 270 1109 5 8 24 117 0 270 2 2000 1117 119 5 8 24 117 0 270 2 2000 1117 7 8 27 117 0 270 2 2000 1117 7 8 27 117 0 270 2 2000 1117 7 8 28 117 0 270 2 2000 1117 7 8 28 28 117 0 270 2 2000 1117 7 8 28 28 117 0 270 2 2000 128 7 8 2 1479 0 2000 1128 7 8 2 1479 0 270 2 2000 128 7 8 2 21479 0 270 2 2000 1288 7 8 2 21479 0 370 2 2000 1288 7   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8<br>8<br>8<br>8<br>8<br>7<br>7<br>7<br>7   | 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 7 8 6 5   | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733  | tsf 0.009 0.019 0.019 0.038 0.038 0.058 0.068 0.068 0.078 0.097 0.017 0.126  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058<br>0.068<br>0.078<br>0.088<br>0.097<br>0.107<br>0.117  | tsf  | ft 0.000   | 1.700 5.1<br>1.700 5.1<br>1.700 9.2<br>1.700 11.<br>1.700 15.<br>1.700 15.<br>1.700 15.<br>1.700 12.<br>1.700 14.<br>1.700 11.<br>1.700 9.6<br>1.700 9.2<br>1.700 9.2   | bpf 64 8.771 64 8.771 650 19.56 19.56 19.56 4992 29.73 780 26.82 960 22.03 450 24.56 470 19.50 17.68 16.88 16.46 17.68 121 15.67   | bpf<br>8 2.755<br>4 5.363<br>00 9.012<br>10 12.056<br>16 13.347<br>16 11.892<br>10.308<br>10.308<br>10.508<br>10.508<br>10.508<br>10.508<br>10.508<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.608<br>10.6 | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411   | %         tsf           1.170         10.77           1.170         10.77           1.118         24.801           0.527         48.01           0.521         67.161           0.722         72.98           0.753         54.041           1.007         45.17           1.359         35.47           1.379         30.241           1.195         32.471           1.293         28.761           1.410         21.353  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.001<br>0.002<br>0.001<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.004<br>0.002<br>0.003<br>0.003<br>0.003<br>0.004<br>0.004<br>0.002<br>0.003<br>0.003<br>0.004<br>0.004<br>0.004<br>0.002<br>0.003<br>0.004<br>0.004<br>0.004<br>0.005<br>0.005<br>0.004<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.005<br>0.  | 0.009<br>0.004<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.003<br>0.001<br>0.003  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898<br>3.115<br>2.773<br>2.068  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233  | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363  | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.32<br>-0.312<br>-0.302<br>-0.275  | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250<br>2.425<br>2.714<br>2.959<br>2.853<br>3.035<br>3.502   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513<br>89.814<br>92.987<br>87.672<br>75.262   | tsf 0.718 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | bsf 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981   |
| 56 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.400 63 0.450 64 0.500 66 0.550   | Depth Elev Elev 1  0.164 0.050 -0.164 0.050 0.0164 0.050 0.0164 0.050 0.0164 0.050 0.0164 0.050  | Avg qt Avg fs Avg u Avg Rf SB state of the first ft   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8<br>8<br>8<br>8<br>8<br>8<br>7<br>7<br>7<br>7                                    | 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 5 6 5 5   | pcf<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551  | tsf 0.009 0.019 0.019 0.019 0.028 0.038 0.048 0.058 0.058 0.068 0.068 0.097 0.107 0.126 0.135  | tsf<br>0.009<br>0.019<br>0.028<br>0.038<br>0.048<br>0.058<br>0.068<br>0.078<br>0.088<br>0.097<br>0.107<br>0.117<br>0.126   | tsf 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | ft 0.000   | 1.700 5.1<br>1.700 9.2<br>1.700 11.<br>1.700 16.<br>1.700 17.<br>1.700 12.<br>1.700 14.<br>1.700 14.<br>1.700 10.<br>1.700 9.6<br>1.700 10.<br>1.700 9.2<br>1.700 8.2   | bpf 64 8.771 661 15.74 661 15.74 661 19.56 6994 27.36 4992 29.73 780 26.82 960 22.03 4450 24.56 4470 19.50 688 16.46 405 17.68 621 15.67 131 13.99   | bpf<br>8 2.755<br>4 5.363<br>9.012<br>10 9.012<br>10 12.056<br>16 13.347<br>16 11.892<br>10.308<br>10.308<br>10.909<br>10 7.680<br>10 9.655<br>10 6.336<br>10 9.655<br>10 9.3767   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259  | % tsf<br>1.170 10.77<br>1.118 24.141<br>0.527 48.01<br>0.521 67.161<br>0.722 72.981<br>0.544 65.83<br>0.753 54.041<br>1.007 45.17<br>1.359 30.241<br>1.195 32.471<br>1.293 28.761   | 0.009<br>0.004<br>2 0.002<br>5 0.002<br>5 0.003<br>6 0.001<br>1 0.001<br>2 0.001<br>0 0.003<br>6 0.002<br>6 0.002<br>8 -0.002<br>8 -0.005   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.005<br>-0.002   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898<br>3.115<br>2.773<br>2.068<br>1.475   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233<br>113.642   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363<br>2.489   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.312<br>-0.302<br>-0.275<br>-0.236   | 0.000<br>3.315<br>2.362<br>2.090<br>2.039<br>2.103<br>2.250<br>2.425<br>2.714<br>2.959<br>2.853<br>3.035<br>3.502<br>0.000  | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513<br>89.814<br>92.987<br>87.672<br>75.262<br>0.000  | tsf 0.718 0.000 0. | bsf 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498   | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>58.499<br>49.407<br>34.981<br>24.982  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981   |
| \$6 0.100<br>\$7 0.150<br>\$8 0.200<br>\$9 0.250<br>\$60 0.300<br>\$61 0.350<br>\$62 0.400<br>\$63 0.450<br>\$64 0.500<br>\$64 0.500<br>\$65 0.550<br>\$67 0.650<br>\$68 0.700<br>\$70 0.800  | Depth Elev Elev 1  1 m 1 m 1  1 m 1 m 1  1 m 1 m 1  1 m 1 m  | Avg qt Avg fs Avg u Avg Rd SB set of the factor of the fac                          | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6   | 0 0 0<br>0 0 0<br>7 8 7 8 7 8 7 8 7 8 7 8 7 8 6 5 5 6 5 6 5 6 4   | pef<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551  | isf 0.009 0.019 0.008 0.058 0.078 0.088 0.097 0.019 0.117 0.126 0.135 0.145 0.145 0.155 0. | tsf 0.009 0.019 0.028 0.038 0.048 0.058 0.078 0.088 0.097 0.107 0.117 0.126 0.135 0.145 0.154  | tsf 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | ft 0.000 0.0 | 1.700 5.1<br>1.700 5.1<br>1.700 9.2<br>1.700 16.<br>1.700 16.<br>1.700 15.<br>1.700 12.<br>1.700 14.<br>1.700 14.<br>1.700 9.6<br>1.700 9.2<br>1.700 9.2<br>1.700 8.2<br>1.700 5.8<br>1.700 6.3   | bpf  | bpf<br>3 2.755<br>4 5.363<br>10 9.012<br>10 12.056<br>11.892<br>10 13.347<br>16 11.892<br>10 308<br>16 9.079<br>16 6.655<br>18 6.965<br>18 6.965<br>18 6.336<br>19 6.655<br>10 3.348<br>11 3.500   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>5.691<br>6.120  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839  | \$\frac{\chi}{1.170}\$ isf \$1.170\$ i0.77 \$1.118\$ 24.1441 \$0.527\$ 48.01072 \$0.521\$ 67.161 \$0.527\$ 72.989 \$0.544\$ 65.8383 \$1.007\$ 45.174 \$1.007\$ 45.175 \$1.359\$ 30.244 \$1.1379\$ 30.247 \$1.195\$ 32.475 \$1.293\$ 28.7663 \$1.440\$ 15.200 \$1.808\$ 12.722 \$1.808\$ 12.722  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.  | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>0.001<br>0.003<br>0.003<br>0.002<br>-0.002<br>-0.003<br>0.003   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>310.218<br>310.218<br>310.218<br>310.218<br>310.224<br>310.234<br>112.642<br>86.569   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898<br>3.115<br>2.773<br>2.068<br>1.475<br>1.215  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233<br>113.642<br>87.569<br>83.919   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363<br>2.489<br>2.607<br>2.690   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192<br>35.724<br>39.905  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000  | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000  | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.312<br>-0.302<br>-0.275<br>-0.236<br>0.000<br>0.000   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 2.853 3.035 3.502 0.000 0.000   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>199.784<br>97.513<br>89.814<br>97.572<br>75.262<br>0.000  | tsf 0.718 0.000 0. | tsf 0.013 0.000 0. | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.095  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.366<br>88.128<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955   |
| \$6 0.100<br>57 0.150<br>58 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.600<br>67 0.650<br>68 0.700<br>69 0.750<br>70 0.800<br>71 0.850   | Depth Elev Elev 1  t m t m 0.000 1.0 | Avg ct Avg fs Avg u Avg Rf SB bit bit ft  | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 7   | pd<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551   | isf 0.009 0.028 0.038 0.048 0.058 0.058 0.058 0.058 0.058 0.058 0.057 0. | tsf 0.009 0.019 0.028 0.038 0.048 0.058 0.068 0.078 0.087 0.107 0.117 0.125 0.135 0.145 0.154 0.164 0.164 0.164  | tsf 0.000  | ft 0.000 0.0 | 1.700 5.1<br>1.700 5.1<br>1.700 9.2<br>1.700 16.<br>1.700 16.<br>1.700 15.<br>1.700 12.<br>1.700 14.<br>1.700 14.<br>1.700 9.6<br>1.700 9.2<br>1.700 9.2<br>1.700 8.2<br>1.700 5.8<br>1.700 6.3   | bpf  | bpf<br>3 2.755<br>4 5.363<br>10 9.012<br>10 12.056<br>11.892<br>10 13.347<br>16 11.892<br>10 308<br>16 9.079<br>16 6.655<br>18 6.965<br>18 6.965<br>18 6.336<br>19 6.655<br>10 3.348<br>11 3.500   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>5.691<br>6.120  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839  | \$\frac{\chi}{1.170}\$ isf \$1.170\$ i0.77 \$1.118\$ 24.1441 \$0.527\$ 48.01072 \$0.521\$ 67.161 \$0.527\$ 72.989 \$0.544\$ 65.8383 \$1.007\$ 45.174 \$1.007\$ 45.175 \$1.359\$ 30.244 \$1.1379\$ 30.247 \$1.195\$ 32.475 \$1.293\$ 28.7663 \$1.440\$ 15.200 \$1.808\$ 12.722 \$1.808\$ 12.722  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.  | 0.009<br>0.004<br>0.002<br>0.002<br>0.004<br>0.002<br>0.003<br>0.001<br>0.003<br>0.003<br>0.002<br>-0.002<br>-0.003<br>0.003   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>310.218<br>310.218<br>310.218<br>310.218<br>310.224<br>310.234<br>112.642<br>86.569   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.898<br>3.115<br>2.773<br>2.068<br>1.475<br>1.215  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233<br>113.642<br>87.569<br>83.919   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363<br>2.489<br>2.607<br>2.690   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192<br>35.724<br>39.905  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000  | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000  | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.312<br>-0.302<br>-0.275<br>-0.236<br>0.000<br>0.000   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 2.853 3.035 3.502 0.000 0.000   | tsf<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>199.784<br>97.513<br>89.814<br>97.572<br>75.262<br>0.000  | tsf 0.718 0.000 0. | tsf 0.013 0.000 0. | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.095  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602  | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.366<br>88.128<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955   |
| 56 0.100<br>57 0.150<br>58 0.200<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>65 0.550<br>66 0.600<br>67 0.650<br>68 0.700<br>69 0.750<br>70 0.800  | Depth Elev Elev  th m th m th do 164 d 0,950 -0.1646 d 0,950 0.328 d 100 -0.328 d 0,00 0.689 d 105 -0.328 d 0,00 0.689 d 105 -0.328 d 0,00 0.680 d 2,700 -0.586 d 0,00 0.680 d 2,700 -0.586 d 0,00 0.680 d 2,700 -0.586 d 0,00 0.680 d 0,00 0.6 | Avg qt Avg fs Avg u Avg Rf SB b   4   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 5 6 5 6 4 6 4 4 6 4 4 6 4   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | tsf 0.009 0.008 0.028 0.038 0.038 0.048 0.058 0.058 0.068 0.078 0.078 0.097 0.107 0.126 0.135 0.154 0.164 0.173 0.182  | tsf 0.009 0.019 0.028 0.038 0.048 0.058 0.068 0.078 0.097 0.107 0.126 0.135 0.145 0.154 0.164 0.173 0.182  | tsf 0.000 0. | ft 0.000 0.0 | bi   bi   ci   ci   ci   ci   ci   ci   | bpf  | bpf   bpf   3   2.755   4   5.363   3   0   9.012   0   9.012   0   6.66   6.6   13.347   6.6   11.892   2   6.66   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.6   6.336   6.865   6.6   6.336   6.865   6.865   6.865   6.865   6.865   6.865   7   3.877   3.877  | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>5.691<br>6.120<br>6.590<br>7.593  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1510.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>1750.741<br>175 | %         isf           1,170         10,527           1,118         24,141,118           0,527         48,011,118           0,527         48,011,118           0,527         48,011,118           0,527         48,011,118           0,523         67,161,618           0,523         57,538           0,544         65,508           0,533         58,404           1,1007         45,139           1,1399         35,83,333           1,1490         21,358           1,1410         21,358           1,440         15,202           1,440         15,202           2,601         13,111           1,440         15,202           2,601         13,111           3,333         16,244           3,333         16,244   | 1 0.009<br>2 0.004<br>2 0.002<br>3 0.002<br>5 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.003<br>9 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.002<br>-0.002<br>-0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>86.569<br>86.569<br>86.91<br>94.168   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>3.437<br>2.898<br>4.329<br>3.415<br>2.773<br>2.068<br>1.475<br>1.215<br>1.240<br>1.359<br>1.561  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233<br>113.642<br>87.569<br>83.919<br>86.691<br>95.060   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363<br>2.489<br>2.689<br>2.689<br>2.689  | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>20.252<br>20.265<br>24.935<br>30.192<br>35.724<br>39.905<br>39.860<br>39.860<br>39.860  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>72.217<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000<br>0.000<br>0.000  | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.352<br>-0.312<br>-0.302<br>-0.275<br>-0.200<br>-0.000<br>-0.000<br>-0.000   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 3.035 3.502 0.000 0.000 0.000 0.000 0.000   | tsf 0.000 80.145 113.497 140.494 148.959 121.789 109.784 97.513 89.814 92.987 75.262 0.000 0.000 0.000 0.000   | tsf 0.718 0.000  | ssf 0.013 0.000 0. | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.095<br>2.160<br>2.327<br>2.674   | 17.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602<br>23.275<br>26.743<br>28.078  | 77.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.699<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602<br>23.275<br>26.743   |
| 56 0.100<br>57 0.150<br>58 0.200<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.600<br>67 0.650<br>68 0.700<br>70 0.800<br>71 0.850<br>72 0.900<br>73 0.950<br>74 1.000  | Depth Elev Elev  | Avg qt   Avg fs   Avg u   Avg ft   SE   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 5 6 5 6 4 4 6 4 6 5 5   | pd<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551  | isf 0.009 1.0019 5.0028 5.0038 5.0058 5.0058 5.0058 5.0058 5.0058 5.0078 5.0097 5.0107 5.0117 0.126 0.135 0.145 0.154 0.164 0.173 0.182  | tsf 0.009 0.019 0.028 0.038 0.058 0.058 0.058 0.078 0.017 0.117 0.126 0.135 0.145 0.154 0.154 0.154 0.154 0.154 0.152 0.182 0.182  | 1sf 0.000 0. | R  | b   b   c   c   c   c   c   c   c   c   | bpf  | bpf  | bpf<br>4.684<br>9.117<br>15.321<br>20.498<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>5.691<br>6.120<br>6.590<br>7.559<br>7.875<br>8.559  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839<br>85.005<br>86.344<br>93.910<br>93.514  | %         lsf           1,170         10.118           24,144         10.527           48,010         0.527           0,521         67,022           0,722         72,98           0,753         54,040           1,007         45,175           1,359         35,83           1,379         30,241           1,195         32,76           1,293         28,76           1,440         15,20           1,440         15,20           1,440         15,20           1,440         15,20           3,335         14,12           3,335         14,12           3,335         14,12           3,335         17,95           2,545         19,95   | 9 0.009<br>9 0.004<br>2 0.002<br>5 0.004<br>5 0.003<br>6 0.003<br>6 0.003<br>6 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.003<br>9 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.002<br>0.002<br>0.003<br>0.004<br>0.005<br>0.004<br>0.005<br>0.004<br>0.005<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006<br>0.006  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>303.321<br>247.389<br>170.234<br>112.642<br>86.569<br>82.918<br>85.691<br>94.168<br>94.050   | MPa 1.023 2.307 4.592 6.424 6.971 6.299 5.168 4.329 3.437 2.888 3.115 2.773 2.088 1.475 1.215 1.245 1.359 1.577 1.661 1.932   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.388<br>171.233<br>113.642<br>87.569<br>83.919<br>86.691<br>95.168<br>95.168   | 2.264<br>1.836<br>1.710<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.363<br>2.489<br>2.607<br>2.689<br>2.685<br>2.685   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192<br>35.724<br>39.905<br>39.866<br>38.926<br>39.866  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000   | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.357<br>-0.332<br>-0.312<br>-0.302<br>-0.275<br>-0.236<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 2.853 3.035 0.000 0.000 0.000 0.000 0.000 0.000   | tsf 0.000 80.145 113.497 140.494 148.950 138.592 121.789 199.784 97.513 89.814 92.987 87.672 75.262 0.000 0.   | tsf 0.718 0.000 0. | bsf 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000  | MPa<br>1.756<br>3.3936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.095<br>2.160<br>2.327<br>2.674<br>2.808   | 17.556<br>39.359<br>78.239<br>109.440<br>118.443<br>107.306<br>88.128<br>73.697<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602<br>23.275<br>26.743<br>28.078<br>32.502  | 73,935<br>78,239<br>78,239<br>109,440<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,943<br>118,94  |
| 56 0.100<br>57 0.150<br>58 0.250<br>59 0.250<br>60 0.300<br>61 0.350<br>62 0.400<br>63 0.450<br>64 0.500<br>66 0.600<br>67 0.650<br>68 0.700<br>69 0.750<br>70 0.800<br>71 0.850<br>72 0.900<br>73 0.950  | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg ft   SE   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8<br>8<br>8<br>8<br>8<br>8<br>7<br>7<br>7<br>7<br>7<br>6<br>6<br>6<br>6<br>6<br>6 | 0 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 5 6 5 6 4 4 6 4 4 6 4   | pd<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | tsf 0.009 0.019 5 0.028 6 0.038 6 0.058 6 0.058 6 0.068 8 0.068 8 0.097 8 0.107 6 0.126 0.145 0.154 0.164 0.164 0.162 0.192  | tsf 0.009 0.019 0.028 0.038 0.088 0.078 0.088 0.078 0.081 0.107 0.112 0.126 0.135 0.145 0.154 0.155 0. | 1sf 0.000 0. | R 0.000  | bi   color   bi   color   co  | bpt  | bpf s bpf s bpf s bpf s bpf s 4 5.363 s 0 9.012 0 9.012 0 9.015 6 13.347 6 11.892 2 10.308 6 9.079 0 7.680 9 6.655 8 6.965 8 6.965 8 6.965 2 4.978 3 3.767 7 3.877 2 4.447 9 4.633 1 5.035 6 6.276 6 6.276 6 6.276 6 6.276   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>6.591<br>6.120<br>6.590<br>7.877<br>8.559<br>7.877<br>8.569   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>12.259<br>87.839<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048  | % isf 1.170 10.71 1.118 24.141 1.170 10.527 48.01.11 0.527 48.01.11 0.521 67.161 0.522 72.98 0.523 67.161 0.524 65.83 0.753 54.040 1.1007 45.73 1.1359 35.83 1.195 32.4771 1.1359 35.83 1.1410 21.35 1.410 21.35 1.410 15.20 2.601 13.111 1.421 2.853 14.33 3.336 16.244 3.336 16.244 3.336 16.244 3.336 17.245 3.345 19.76   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.003<br>0.003<br>0.001<br>0.005<br>0.005<br>0.005<br>0.004<br>0.025<br>0.003   | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>85.569<br>82.918<br>85.691<br>94.050<br>104.168   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.888<br>1.475<br>1.215<br>1.240<br>1.359<br>1.577<br>1.661<br>1.932  | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.065<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>171.233<br>113.642<br>87.569<br>83.919<br>86.691<br>95.168<br>95.050<br>105.168  | 2.264<br>1.836<br>1.716<br>1.763<br>1.728<br>1.878<br>2.016<br>2.175<br>2.237<br>2.175<br>2.237<br>2.690<br>2.690<br>2.690<br>2.685<br>2.671<br>2.571   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>30.192<br>35.724<br>39.905<br>39.686<br>39.686<br>32.734<br>21.421  | 82.915<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0000<br>0.0     | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.312<br>-0.302<br>-0.276<br>-0.236<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 2.853 3.035 3.502 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   | tsf 0.000 80.145 113.497 140.494 148.950 138.592 121.789 109.784 97.513 89.814 97.52 75.262 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | tsf 0.718 0.000 0. | tsf 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | MPa 1.756 3.3936 7.824 10.944 11.894 10.731 8.813 7.370 5.850 4.941 5.306 4.703 3.498 2.498 2.498 2.498 2.498 2.498 3.250 2.160 2.327 2.674 2.808 3.250 3.250  | 17.556<br>17.556<br>17.556<br>17.559<br>17.29<br>109.440<br>118.943<br>107.306<br>88.128<br>173.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602<br>23.275<br>26.743<br>28.078<br>32.502<br>45.940  | 77.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>75.369<br>49.407<br>53.064<br>47.029<br>34.981<br>24.982<br>20.955<br>21.602<br>23.275<br>26.743<br>28.078<br>32.509   |
| 55 0.100 57 0.150 58 0.200 59 0.250 60 0.300 61 0.350 62 0.450 63 0.450 64 0.500 65 0.550 66 0.600 66 0.600 67 0.650 68 0.700 70 0.800 71 0.850 72 0.900 73 0.950 75 1.050 76 1.100   | Depth   Elev     | Avg qt Avg fs Avg u Avg Rf SB W fs SB V fs SB                           | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 8 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 7 8 8 7 8 7 8 7 8 7 8 6 5 6 5 6 4 4 6 4 6 5 6 5 6 5 6 5 6 5 5 5 6 5 5 5 5 6 5 5 5 5 5 6 5   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bsf   0.009   0.019   0.019   0.019   0.019   0.019   0.028   0.028   0.058   0.068   0.068   0.068   0.068   0.097   0.126   0.107   0.126   0.154   0.154   0.154   0.154   0.154   0.154   0.154   0.154   0.154   0.154   0.162   0.192   0.192   0.192   0.201    | tsf 0.009 0.019 0.028 0.038 0.048 0.058 0.058 0.078 0.059 0. | 1sf 0.000 0. | ft 0.000 0.0 | 1,700   5,1<br>1,700   5,1<br>1,700   5,1<br>1,700      | of bpf of | bpf   bpf   5,000   5,   | bpf<br>4.684<br>9.117<br>15.321<br>20.496<br>22.690<br>20.217<br>17.524<br>15.435<br>13.055<br>11.314<br>11.840<br>10.772<br>8.463<br>6.404<br>5.691<br>6.120<br>6.590<br>7.559<br>7.875<br>10.669<br>11.977<br>12.449   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.246.831<br>169.411<br>112.259<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048<br>139.198<br>139.198  | \$\frac{5}{5}\$  \text{ if }  if  | 9 0.009<br>9 0.004<br>2 0.002<br>5 0.002<br>5 0.003<br>6 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>9 0.00   | 0.009<br>0.004<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>-0.002<br>-0.002<br>-0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.001<br>0.003<br>0.002<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.008<br>0.0 | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>85.569<br>82.918<br>85.691<br>94.168<br>94.050<br>104.168<br>140.243<br>155.580   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.888<br>3.115<br>2.773<br>2.068<br>1.475<br>1.215<br>1.240<br>1.359<br>1.577<br>1.661<br>1.932<br>2.722<br>3.161   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.066<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>113.642<br>87.569<br>86.691<br>95.168<br>95.060<br>105.168<br>141.243<br>156.580   | 2.264 1.836 1.710 1.763 1.728 1.878 2.016 2.175 2.237 2.237 2.363 2.607 2.690 2.689 2.685 2.671 2.545 2.270 2.170   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192<br>35.724<br>39.860<br>39.866<br>39.866<br>38.926<br>32.734<br>21.421<br>18.084  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0 | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>35.884<br>36.32<br>36.32<br>36.32<br>37.33<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.97<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.96<br>38.9 | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.352<br>-0.357<br>-0.312<br>-0.302<br>-0.275<br>-0.226<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.256<br>-0.248<br>-0.248   | 0.000<br>3.315<br>2.362<br>2.090<br>2.103<br>2.250<br>2.103<br>2.252<br>2.714<br>2.959<br>3.035<br>3.502<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | tsf 0.000 80.145 113.497 140.494 148.950 138.592 121.789 199.784 97.513 89.814 92.987 87.672 75.262 0.000 0.000 0.000 0.000 0.000 0.000 0.000 86.665 93.548 94.398   | tsf 0.718 0.000  | 61 0.013 0.000 0.0 | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00    | MPa 1.756 1.   | 17.556 39.359 78.239 109.440 118.943 107.306 88.128 73.697 58.499 49.407 53.064 47.029 34.981 24.982 20.955 21.602 23.275 26.743 28.078 32.502 45.940 55.3725 54.734   | 77.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>88.128<br>73.997<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>20.955<br>21.602<br>22.3275<br>26.743<br>28.078<br>28.078<br>29.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.07 |
| 56  | Depth Elev Elev 1  1 m  | Avg qt   Avg fs   Avg u   Avg Rf   SB   | 0                                     | 8 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6 6 6 7 7 7 7                                     | 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 5 6 5 6 4 4 6 4 6 5 6 5 6 5 6 5 6 5 6   | pef<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | bsf 0.009 0.019 0.019 0.019 0.019 0.058 0.088 0.008 0.017 0.125 0.115 0.154 0. | 0.099 0.019 0.028 0.048 0.058 0.068 0.078 0.097 0.107 0.126 0.135 0.145 0.154  | isf 0.000 0. | R  | 1,700   5,1   1,700   9,5   1,700   9,2   1,700   11,1   1,700   10,1   1,700   11,1   1,700   10,1   1,700   15,1   1,700   15,1   1,700   15,1   1,700   10,1   1,700   | of bpf of | bpf   bpf   5   5   5   5   5   5   5   5   5  | bpf 4.684 9.117 15.321 20.496 22.699 20.217 17.524 15.435 13.055 11.314 11.840 10.772 8.453 6.404 5.691 6.120 6.590 7.559 10.669 11.977 12.449 12.910  | 1146.475<br>1285.247<br>1887.909<br>1750.741<br>1511.786<br>1131.1215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>119.841<br>112.259<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048<br>133.198<br>155.548<br>155.548<br>155.548  | 5% ef 1.170 10.77 118 24.141 1170 10.77 118 118 24.141 1170 10.77 118 24.141 1170 10.77 118 24.141 1170 10.72 12.81 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 24.141 118 25.141 118 26.141 118 2  | 0.009<br>  0.004<br>  0.002<br>  0.002<br>  0.002<br>  0.002<br>  0.002<br>  0.003<br>  0.00   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806 1280.594 1684.309 1746.981 1756.217 1128.784 791.065 579.157 408.719 310.218 303.321 247.389 170.234 112.642 82.518 85.691 94.168 94.050 104.168 140.683 151.548   | MPa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>3.437<br>2.898<br>3.115<br>2.773<br>2.088<br>1.475<br>1.240<br>1.359<br>1.577<br>1.216<br>1.592<br>2.722<br>3.161<br>3.321   | 1281.595<br>1685.310<br>1747.982<br>1507.219<br>1129.785<br>792.086<br>580.157<br>409.719<br>311.218<br>304.322<br>248.389<br>248.389<br>33.919<br>86.691<br>95.168<br>95.050<br>105.168<br>141.243<br>156.580<br>152.548  | 2.264 1.836 1.710 1.763 1.728 1.878 2.016 2.175 2.237 2.175 2.363 2.489 2.690 2.689 2.689 2.691 2.545 2.270 2.172 2.221   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.265<br>24.935<br>30.192<br>35.724<br>39.860<br>39.866<br>39.866<br>38.926<br>32.734<br>21.421<br>18.084  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>72.217<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00 | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.352<br>-0.352<br>-0.332<br>-0.312<br>-0.302<br>-0.275<br>-0.275<br>-0.200<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.256<br>-0.248<br>-0.248<br>-0.269   | 0.000 3.315 2.362 2.090 2.103 2.250 2.425 2.714 2.959 3.853 3.002 0.000   | 18f<br>0.000<br>80.145<br>113.497<br>140.494<br>148.950<br>138.592<br>121.789<br>109.784<br>97.513<br>89.814<br>92.987<br>75.262<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0. | tsf 0.718 0.000 0. | bsf 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | MPa 1.756 3.3936 7.824 10.944 10.731 8.813 7.370 5.850 4.941 5.306 4.703 2.498 2.498 2.295 2.327 2.674 2.808 3.250 4.594 5.373 5.473 5.473 5.473 5.473   | 17.556 39.359 78.239 109.440 118.943 107.306 88.128 73.697 58.499 49.407 53.064 47.029 34.981 24.982 21.602 23.275 26.743 28.078 32.502 45.940 53.725 54.445   | 77.556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>88.128<br>73.997<br>58.499<br>49.407<br>53.064<br>47.029<br>34.981<br>20.955<br>21.602<br>22.3275<br>26.743<br>28.078<br>28.078<br>29.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.078<br>20.07 |
| 55  | Depth Elev Elev  | Avg et   Avg fs   Avg u   | 0                                     | 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 7 8 7 8 7 8 7 8 7 8 6 6 5 6 5 6 4 4 6 4 6 4 6 5 6 6 5 6 6 5 6 6 5 6 5   | pef<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551   | Sef   0.009   0.009   0.009   0.009   0.008   0.008   0.058    | 187 0.009 0.019 0.028 0.038 0.048 0.058 0.068 0.078 0.087 0.107 0.117 0.126 0.150 0. | isf 0.000 0. | . ft   | b <sub>1</sub>  | of bpf of | bef   bef   bef   bef   bef   s   2.755   d   5.363   0   9.012   0   12.056   6   13.347   6   6   13.347   6   11.892   2   10.308   6   55   6   55   3   6   565   3   6   565   3   6   565   3   6   565   3   6   565   3   6   565   3   6   565   6   5   | bpf 4.684 9.117 15.321 20.496 22.699 20.217 17.524 15.435 13.055 11.314 11.840 10.772 8.463 6.404 5.691 6.120 6.590 7.877 8.559 7.877 8.569 11.977 12.449 12.910 14.152 15.304   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1730.741<br>1511.786<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048<br>133.198<br>155.548<br>155.548<br>155.548<br>155.548<br>155.548<br>155.548<br>155.548  | 56 ef 1770 1770 1770 1770 1770 1770 1770 177  | 1 0.009<br>0 0.004<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.003<br>0 0 0 0.003<br>0 0 0 0.003<br>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.002<br>-0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003 | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>85.691<br>85.691<br>84.168<br>94.050<br>104.168<br>140.243<br>155.580   | MPa 1.023 1.  | 1281.595 1685.310 1747.982 1507.219 1129.785 580.157 409.719 311.218 304.322 248.389 171.233 113.642 87.569 83.919 86.691 95.168 141.243 156.580 152.548 150.784 164.942   | 2.264 1.836 1.710 1.763 1.728 2.016 2.175 2.237 2.175 2.237 2.363 2.489 2.607 2.690 2.689 2.671 2.545 2.270 2.172 2.234 2.141 2.059   | 21.201 8.917 6.312 7.351 6.646 9.878 13.385 13.385 18.170 20.252 18.152 20.265 24.935 30.192 35.724 39.905 39.905 39.968 38.926 32.734 21.421 18.084 19.695 20.150 17.067  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>53.365<br>57.190<br>57.081<br>57.357<br>60.515<br>60.515   | deg<br>0.000<br>35.146<br>38.428<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.232<br>36.573<br>36.573<br>36.573<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36.721<br>36   | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.352<br>-0.352<br>-0.354<br>-0.352<br>-0.312<br>-0.312<br>-0.275<br>-0.275<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.256<br>-0.278<br>-0.278<br>-0.278   | 0.000 3.315 2.362 2.092 2.039 2.103 2.250 2.2425 2.714 2.959 2.853 3.035 0.000  | tsf 0.000 80.145 113.497 140.494 144.950 138.592 121.789 109.784 97.513 89.814 92.987 67.52 75.262 0.000 0.0   | tsf 0.718 0.000 0. | sef 3 0.013 0.013 0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.    | MPa 1.756 1.   | 17.556 39.359 78.239 109.440 118.943 107.306 88.128 73.697 58.499 49.407 53.064 47.029 34.981 24.982 20.955 21.602 23.275 26.743 28.078 32.502 45.940 55.3755 54.734 56.445 66.4112  | 77. 556<br>39.359<br>78.239<br>109.440<br>118.943<br>107.306<br>88.128<br>73.697<br>58.499<br>49.407<br>53.064<br>47.029<br>34.961<br>20.955<br>21.502<br>23.275<br>26.078<br>32.502<br>44.502<br>32.502<br>45.502<br>45.502<br>46.502<br>37.502<br>46.502<br>47.703<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.502<br>47.50 |
| 55  | Depth Elev Elev Brown  | Avg qt   Avg fs   Avg u   Avg H   S8  | 0                                     | 8 8 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bsf   0.009   0.0019   0.0019   0.0019   0.0019   0.0019   0.018   0.058   0.058   0.058   0.058   0.058   0.058   0.078   0.077   0.107   0   | bif 0.009 0.019 0.028 0.038 0.048 0.058 0.058 0.058 0.058 0.058 0.059 0.050 0. | isf 0.000 0. | ft 0.000 0.0 | bin   | of bpf of | bef   bef   bef   bef   bef   s   c   c   c   c   c   c   c   c   c  | bpf 4.684 9.117 15.321 20.496 22.690 20.217 17.524 15.435 13.055 13.055 13.055 6.120 6.590 7.559 7.579 10.689 11.977 12.449 12.910 14.152 15.304 16.709  | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048<br>139.198<br>155.548<br>155.548  | 55 ef 1770 1770 1770 1770 1770 1770 1770 177  | 1 0.009<br>0 0.004<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.002<br>0 0.003<br>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.003<br>0.003<br>0.001<br>0.003<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806 1280.594 1684.309 1746.981 1506.217 1128.784 791.065 579.157 408.719 310.218 303.321 247.389 170.234 112.642 86.569 82.918 85.691 140.168 140.243 155.548 149.784 163.942 176.186  | MPa<br>1023<br>2 307<br>4 592<br>6 424<br>6 .971<br>6 .299<br>5 168<br>4 329<br>3 .115<br>2 .773<br>2 .068<br>3 .115<br>1 .215<br>1 .240<br>1 .359<br>1 .1577<br>1 .652<br>2 .772<br>3 .361<br>1 .359<br>1 .3   | 1281.595 1685.310 1747.982 1507.219 1129.785 792.066 580.157 409.719 311.218 304.322 248.389 171.233 113.642 87.569 83.919 86.691 195.168 95.168 141.243 156.580 152.548 150.784 164.942 177.186   | 2.264 1.836 1.710 1.763 1.728 2.016 2.175 2.237 2.175 2.237 2.963 2.689 2.689 2.685 2.671 2.545 2.270 2.221 2.241 2.241 2.251   | 21.201<br>8.917<br>6.312<br>7.351<br>6.646<br>9.878<br>13.385<br>18.170<br>20.252<br>18.152<br>20.252<br>30.192<br>35.724<br>39.905<br>39.960<br>39.860<br>39.860<br>39.860<br>39.860<br>39.860<br>18.170<br>18.084<br>19.095<br>19.0767<br>14.607   | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>61.866<br>61.866<br>61.866<br>61.866<br>61.866<br>62.257<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0   | deg<br>0.000<br>35.146<br>38.428<br>40.429<br>39.937<br>38.996<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>35.884<br>36.632<br>36.721<br>36.868<br>37.491<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916<br>38.916  | -0.443<br>-0.384<br>-0.386<br>-0.406<br>-0.351<br>-0.352<br>-0.354<br>-0.357<br>-0.332<br>-0.302<br>-0.236<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.000<br>-0.266<br>-0.266<br>-0.266<br>-0.266<br>-0.266<br>-0.266   | 0.000 3.315 2.362 2.090 2.099 2.103 2.250 2.425 2.425 2.714 2.959 2.853 3.035 3.502 0.000   | tsf 0.000 80.145 113.497 140.494 148.950 138.592 121.789 199.784 97.513 89.814 92.987 75.262 0.000 0.000 0.000 0.000 0.000 0.000 0.000 86.665 93.548 94.398 96.823 102.221 108.286   | tsf 0.718 0.000 0. | sef 3.0.000  | 10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>10.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.0000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.00    | MPa 1.756 3.936 7.824 10.944 11.894 10.731 8.813 7.370 5.850 4.941 5.306 4.941 5.306 4.941 2.095 2.160 2.327 2.674 2.808 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 3.250 4.954 4.954 3.250 4.954 4.954 3.250 4.954 4.954 3.250 4.954 4.954 3.250 4.954   | 17.556 39.359 78.239 109.440 118.943 107.306 88.128 73.697 58.499 49.407 53.064 47.029 34.981 24.982 20.955 26.743 22.925 26.743 25.064 47.029 32.75 26.743 25.064 47.029 45.940 47.029 45.940 47.029 46.940 47.029  | 17, 556 39,359 78,239 109,440 118,943 107,306 118,943 107,306 118,943 107,306 118,943 107,306 107,306 107,306 107,307 108,407   |
| 55  | Depth Elev Elev 1  1 m  | Avg qt   Avg fs   Avg u   Avg H   SB  | 0                                     | 8 8 8 8 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bsf   0.009   0.019   0.009   0.0019   0.0019   0.0019   0.0018   0.008   0.008   0.008   0.008   0.007   0.   | bif 0.009 0.019 0.028 0.038 0.048 0.058 0.058 0.058 0.058 0.059 0.059 0.050 0. | tsf 0.000 0. | . ft   | bin   | of bpf of | bgf s 2,755 4 5.363 0 9.012 0 9.012 0 9.012 0 9.012 0 9.012 0 9.012 0 9.012 0 9.012 0 9.013 0  | bpf 4.684 9.117 15.321 20.496 22.690 20.217 17.524 15.435 13.055 11.314 11.840 10.772 8.463 6.404 6.691 6.590 7.559 7.877 8.559 10.672 4.91 19.77 12.449 11.52 15.304 16.709 20.066 23.435   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839<br>85.005<br>86.344<br>139.198<br>139.198<br>139.198<br>155.548<br>151.499<br>149.750<br>163.930<br>176.112<br>188.136<br>229.402<br>271.656   | 5% ef 1.170 1.077.1 1.118 24.144.1 1.170 1.077.1 1.118 24.144.1 1.170 1.077.1 1.118 24.144.1 1.170 1.072.1 1.118 24.144.1 1.170 1.0527 4.0521 0.524 0.524 0.525 0.524 0.525 0.524 0.525 0.524 0.525 0.524 0.525 0.524 0.525 0.524 0.525 0.524 0.525 0.525 0.524 0.525 0.  | 1 0.009<br>0 0.004<br>2 0.002<br>5 0.002<br>5 0.003<br>6 0.003<br>6 0.003<br>7 0.002<br>8 0.003<br>9 0.002<br>9 0.002<br>1 0.002<br>1 0.003<br>1 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.003<br>0.001<br>0.003<br>0.002<br>0.003<br>0.002<br>0.003<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>86.569<br>82.918<br>85.691<br>84.168<br>94.050<br>104.168<br>149.244<br>149.744<br>163.942<br>176.186   | MPa<br>1,023<br>1,023<br>4,592<br>6,424<br>6,971<br>6,299<br>5,168<br>4,329<br>3,137<br>2,898<br>3,115<br>1,215<br>1,215<br>1,215<br>1,215<br>1,215<br>1,215<br>1,215<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1,327<br>1, | 1281.595 1685.310 1747.982 1507.219 1129.785 792.066 580.157 409.719 311.218 304.322 248.389 171.233 113.642 87.569 83.919 86.691 95.168 95.050 105.168 150.784 164.942 177.186 185.184 230.414 272.662  | 2.264 1.836 1.710 1.763 1.728 1.878 2.016 2.175 2.237 2.175 2.237 2.363 2.489 2.607 2.548 2.607 2.545 2.277 2.152 2.217 2.154 2.171 2.545 2.270 2.172 2.211 2.234 2.141 2.059 1.883   | 21.201 8.917 6.312 7.351 6.646 9.878 13.385 18.170 20.252 18.152 20.265 24.935 30.192 35.724 39.860 39.686 39.866 32.734 21.421 18.084 19.695 20.150 17.067 14.607 14.808  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>52.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000     | deg<br>0.000<br>35.146<br>38.428<br>40.031<br>40.429<br>39.937<br>38.996<br>38.142<br>37.039<br>36.232<br>36.573<br>35.996<br>34.582<br>32.974<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>35.884<br>36.632<br>36.721<br>36.868<br>37.491<br>38.021<br>38.636<br>39.636  | -0.443 -0.386 -0.406 -0.352 -0.351 -0.352 -0.354 -0.352 -0.352 -0.352 -0.302 -0.275 -0.236 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.256 -0.248 -0.269 -0.266 -0.259 -0.257 -0.257  | 0.000 3.315 2.362 2.090 2.090 2.039 2.103 2.250 2.242 2.714 2.959 2.853 3.502 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.835 2.808 2.764 2.588 2.454 2.588   | tsf 0.000 80.145 113.497 140.494 144.950 138.592 121.789 197.513 89.814 97.513 89.814 97.513 675.200 0.000 0.000 0.000 0.000 0.000 86.665 93.548 94.398 95.823 102.221 108.286 114.703 132.782   | tsf 0.000 0. | bef  | 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 10.000 10.000 10.000 10.000 10.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000  | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>7.370<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.498<br>2.298<br>2.160<br>2.327<br>2.674<br>2.808<br>3.326<br>4.541<br>5.373<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473<br>5.473 | 17.556 39.359 78.239 109.440 109.440 118.943 107.306 88.128 73.697 58.499 49.407 53.064 47.029 34.981 24.982 20.955 21.602 23.275 26.743 28.078 32.502 445.940 53.725 54.734 56.445 64.312 771.848 79.700 100.760  | 17,556 39,359 78,239 78  |
| 56   0.000  | Depth   Elev     | Avg qt Avg fs Avg u Avg Rf S8  4 10 730 0.120 3.210 1.169 5  8 24 167 0.270 2.800 1.117 6  8 24 167 0.270 2.800 1.117 6  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 67 169 0.350 4.600 6.527 8  6 7 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18   | 0                                     | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bsf   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.0097   0.0   | tsf 0.009 0.009 0.009 0.009 0.009 0.009 0.008 0.058 0.058 0.058 0.058 0.058 0.058 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.259 0.259 0.259 0.259  | tsf 0.000 0. | ft 0.000 0.0 | 1,700   5.1   | of bpf of | bef   Section  | bpf 4.684 9.117 15.321 20.496 22.690 22.690 20.217 17.524 15.435 13.055 11.314 11.840 10.772 8.463 6.404 5.691 6.120 6.590 7.877 8.559 10.669 11.977 12.449 12.910 14.152 15.304 16.709 20.4345 28.113   | 1146.475<br>1285.247<br>1687.909<br>1750.741<br>1511.786<br>1131.215<br>793.486<br>579.923<br>409.264<br>311.082<br>303.897<br>246.831<br>169.411<br>112.259<br>85.305<br>86.344<br>93.910<br>93.514<br>103.048<br>133.198<br>155.548<br>151.499<br>149.750<br>163.301<br>163.411<br>176.112<br>188.136<br>229.402<br>271.656   | 5. ef<br>1.170 10.77<br>1.118 24.141.15<br>1.0527 48.01.15<br>1.0527 48.01.15<br>1.0527 48.01.15<br>1.0527 47.16<br>1.0521 07.16<br>1.0521 07.16  | 1 0.009<br>2 0.002<br>3 0.002<br>5 0.002<br>5 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.007<br>9 0.003<br>9 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.001<br>0.003<br>0.001<br>0.003<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>86.569<br>85.691<br>94.168<br>94.050<br>104.168<br>140.243<br>155.580<br>151.5580<br>161.843<br>163.942<br>176.186<br>188.184<br>229.214<br>271.662   | M/Pa<br>1.023<br>2.307<br>4.592<br>6.424<br>6.971<br>6.299<br>5.168<br>4.329<br>3.437<br>2.888<br>3.115<br>2.773<br>2.068<br>1.475<br>1.215<br>1.240<br>1.359<br>1.577<br>1.215<br>1.240<br>1.359<br>1.577<br>1.253<br>1.577<br>1.261<br>1.322<br>3.611<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3.321<br>3 | 1281 595 1685 310 1747 982 1507 219 1129 785 195 195 195 195 195 195 195 195 195 19  | 2.264 1.836 1.710 1.763 1.778 2.016 2.175 2.237 2.185 2.236 2.690 2.689 2.691 2.695 2.691 2.505 2.270 2.172 2.234 2.172 2.172 2.234 2.172 2.172 2.234 2.172 2.172 2.234 2.172 2.172 2.234 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.172 2.174 2.175 2.176 2.176 2.177   | 21.201 8.917 6.312 7.351 6.312 7.351 6.646 9.878 13.385 18.170 20.252 18.152 20.265 24.935 30.192 35.724 39.905 39.860 39.866 38.926 39.866 38.926 20.150 17.067 14.607 14.607 14.607 14.607 14.607 6.983 9.976 6.983  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.566<br>61.866<br>62.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000     | deg 0.000 0.000 1.   | -0.443 -0.386 -0.408 -0.351 -0.352 -0.352 -0.357 -0.352 -0.352 -0.312 -0.302 -0.275 -0.275 -0.236 -0.000 -0.000 -0.000 -0.000 -0.000 -0.256 -0.256 -0.256 -0.255 -0.259 -0.278 -0.259 -0.259 -0.259 -0.259   | 0.000 3.315 2.362 2.090 2.039 2.103 2.250 2.425 2.714 2.959 3.035 3.035 3.035 3.036 0.000   | tsf 0.000 80.145 113.497 140.494 148.950 138.592 121.789 109.784 97.513 89.814 92.987 87.672 75.262 0.000 0.000 0.000 0.000 86.665 93.548 94.398 95.823 102.221 108.286 114.703 132.782 153.104 168.246  | tsf 0.718 0.000 0. | bef  | 10.000   | MPa<br>1.756<br>1.756<br>7.824<br>10.944<br>11.894<br>10.731<br>18.813<br>7.370<br>5.850<br>4.941<br>5.306<br>4.703<br>3.498<br>2.498<br>2.498<br>2.498<br>2.498<br>2.498<br>2.498<br>2.498<br>3.295<br>2.160<br>2.327<br>2.674<br>2.808<br>3.329<br>4.703<br>3.335<br>4.703<br>3.335<br>4.703<br>3.335<br>4.703<br>5.850<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.704<br>6.70 | 17.556 39.359 78.239 78 | 17,556 39,359 78,239 109,440 118,943 107,306 88,128 75,3064 47,029 34,981 24,982 20,555 21,602 23,275 26,743 28,078 32,502 45,940 53,725 54,734 56,445 66,431 71,848 71,848 71,848 71,848   |
| 56 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 55 0.000 56 0.000 57 0.000 56 0.000 57   | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg Rf   SB   | 0                                     | 8 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 7 7 7 7                                     | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pef<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bsf   0.009   0.019   0.009   0.0019   0.0019   0.003   0.003   0.008   0.008   0.0097   0.007   0.0   | tsf   0.009   0.009   0.009   0.009   0.009   0.003   0.048   0.058   0.058   0.058   0.058   0.057   0.107   0.126   0.107   0.126   0.107   0.126   0.107   0.126   0.107   0.127   0.126   0.126   0.120   0.201    | tsf  | R 0.000 0.00 | b <sub>1</sub>   b <sub>1</sub> | of both sides of the service of the  | bgf   S   2755   S   2755   S   2755   S   2755   S   S   S   S   S   S   S   S   S  | 684 9 117 15.321 20.496 22.699 20.217 17.524 15.435 13.055 11.314 11.840 10.772 8.455 16.59 7.559 7.559 10.669 11.977 12.449 12.45 15.304 16.709 20.066 23.455 26.113 28.033   | 1146.475<br>1285.247<br>1285.247<br>1687.909<br>1750.741<br>1511.726<br>1750.741<br>1511.726<br>1759.223<br>409.254<br>303.897<br>246.831<br>169.411<br>112.259<br>87.839<br>85.005<br>86.344<br>93.910<br>93.514<br>103.048<br>130.198<br>155.548<br>130.198<br>145.750<br>163.930<br>176.112<br>188.136<br>229.402<br>271.656<br>299.257  | 5. ef 1.770 (1.771 (1.772 (1.7  | 1 0.009<br>2 0.004<br>5 0.002<br>5 0.003<br>5 0.003<br>6 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.003<br>9 0.00   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>85.569<br>82.918<br>85.691<br>94.168<br>94.050<br>104.168<br>140.243<br>155.580<br>151.548<br>149.784<br>163.942<br>176.186<br>188.184<br>229.414<br>229.414<br>271.662<br>299.215  | MPa<br>1,023<br>2,307<br>4,592<br>6,424<br>6,971<br>6,299<br>5,168<br>4,329<br>3,437<br>2,898<br>3,115<br>2,773<br>2,088<br>1,475<br>1,215<br>1,215<br>1,240<br>1,359<br>1,577<br>1,632<br>2,722<br>2,722<br>3,161<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3,321<br>3, | 1281 595 1685 310 1747 982 1507 219 1129 785 792 086 580 157 7409 719 311 218 304.322 248.389 171.233 113.642 87.569 83.919 95.168 95.056 141.243 156.580 152.548 164.942 179.643 179.643 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.942 179.64 164.94 164. | 2.264 1.836 1.710 1.763 1.778 1.878 2.175 2.237 2.175 2.236 2.489 2.690 2.690 2.695 2.545 2.772 2.172 2.211 2.234 2.111 2.059 2.172 2.211 2.172 2.211 2.172 2.211 2.172 2.211 2.173 2.174 2.175 2.177   | 21.201 8.917 6.312 7.351 6.646 9.878 13.385 18.170 20.252 18.152 20.265 24.935 30.192 35.724 33.905 39.905 39.860 39.960 39.960 39.734 21.421 18.084 19.0150 17.067 14.607 13.458 9.976 9.963 5.705  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>66.566<br>61.866<br>62.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0 | deg 0.000 0.000 38.146 38.28 39.29 39.37 0.000 0.000 0.000 0.000 0.000 0.000 38.884 36.52 38.88 36.52 38.89 38.89 38.89 38.89 38.59  | -0.443 -0.384 -0.386 -0.406 -0.351 -0.352 -0.352 -0.352 -0.312 -0.332 -0.312 -0.302 -0.275 -0.226 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.000 -0.256 -0.258 -0.269 -0.259 -0.257 -0.257 -0.257  | 0.000 3.315 2.362 2.090 2.039 2.230 2.220 2.2425 2.3714 2.363 3.035 3.502 2.000 0.000 0.000 0.000 0.000 0.000 2.2808   | tsf 0.000 80.145 113.497 140.494 144.950 138.592 121.789 109.784 97.513 89.814 92.967 75.262 0.000 0.000 0.000 0.000 0.000 0.000 86.665 93.548 94.398 95.823 102.221 108.286 114.703 132.782 153.104 168.246 178.884   | tsf   0.718   0.000    | 0.013 0.000  | 10.000   | MPa<br>1,756<br>3,936<br>7,824<br>10,944<br>11,894<br>10,731<br>8,813<br>7,370<br>5,850<br>4,941<br>1,737<br>5,850<br>4,941<br>1,737<br>1,370<br>5,850<br>4,941<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,498<br>2,598<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594<br>4,594 | 17.556 39.359 178.239 178.239 178.239 178.239 178.239 1718.943 1707.306 1718.943 1707.306 1718.943 1707.306 1718.943 173.937 1 | 17,556 39,359 78,239 78  |
| 56 0.000 55   | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg ft   SE   | 0                                     | 8 8 8 8 8 8 8 8 7 7 7 7 7 7 7 6 6 6 6 6   | 0 0 0 0 0 0 0 0 7 8 8 7 8 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8   | pef<br>114.551<br>114.551<br>120.915<br>120.915<br>120.915<br>120.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>11 | bsf   0.009   0.009   0.009   0.009   0.008   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.058   0.057   0.097    | bif 0.009 0.009 0.009 0.009 0.009 0.008 0.008 0.008 0.008 0.007 0.107 0.107 0.126 0.135 0.145 0.164 0.173 0.182 0.201 0.201 0.201 0.201 0.200 0.201 0.200 0. | tsf 0.000 0. | R 0.000 0.00 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$  | of both of bot | bef s 2.755  | bg1 4.684 4.684 5.117 15.321 15.321 15.321 15.321 13.055 11.314 13.055 11.314 13.07 13.055 11.314 13.07 13.055 11.314 11.840 10.772 12.449 11.520 11. | 1146.475 1285.247 1285.247 1285.247 1587.399 1750.741 1511.782 1451.215 793.486 579.923 409.254 311.082 303.897 246.831 169.411 112.259 87.839 85.005 86.344 93.910 93.514 103.048 133.198 155.548 133.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548 135.198 155.548  | 5. ef<br>1.770 10.77<br>1.118 24.141<br>1.527 48.07<br>1.527 48.07<br>1.527 48.07<br>1.527 48.07<br>1.528 35.47<br>1.528 35.47<br>1.528 35.47<br>1.529 35.83<br>1.528 35.83<br>1.528 32.47<br>1.529 35.83<br>1.528 32.47<br>1.529 32.47<br>1.529 35.83<br>1.528 32.47<br>1.529 32.47<br>1.529 35.83<br>1.528 32.47<br>1.529 35.83<br>1.528 32.47<br>1.529 32.47<br>1.529 35.83<br>1.528 32.47<br>1.529 32.4  | 1 0.009<br>2 0.004<br>5 0.002<br>5 0.003<br>5 0.003<br>5 0.003<br>6 0.003<br>6 0.003<br>7 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>8 0.003<br>9 0.00   | 0.098<br>0.004<br>0.002<br>0.004<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806<br>1280.594<br>1684.309<br>1746.981<br>1506.217<br>1128.784<br>791.065<br>579.157<br>408.719<br>310.218<br>303.321<br>247.389<br>170.234<br>112.642<br>86.569<br>82.918<br>85.691<br>94.168<br>94.050<br>104.168<br>140.243<br>147.849<br>146.3942<br>176.186<br>188.184<br>229.414<br>229.414<br>271.6562<br>299.215<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313.884<br>313 | MPa 1 023 2 307 4 592 2 307 4 592 2 307 4 592 2 307 4 592 2 307 5 168 8 3 115 2 773 2 307 5 168 1 3 2 773 2 3 2 72 2 3 3 161 3 2 2 72 2 3 3 161 3 2 2 72 2 3 3 161 3 2 2 72 2 3 3 3 161 3 2 2 72 2 3 3 3 161 3 2 2 72 2 3 3 3 161 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3   | 1281 595 1685 310 1747 982 1507 219 1129 785 792 086 580 157 740 9.719 311 218 304 322 248 389 391 98 6.691 171 233 113.642 87.569 83.919 95.168 95.166 141.243 156.580 152.548 164.942 174.948 164.942 174.948 165.948 165.948 165.948 165.948 165.948 165.95 165 168 184 174.948 165 165 165 165 165 165 165 165 165 165   | 2.264 1.836 1.710 1.763 1.778 1.878 2.175 2.237 2.175 2.237 2.175 2.236 2.489 2.685 2.690 2.690 2.690 2.690 2.690 2.690 2.690 2.690 2.172 2.211 2.241 2.141 2.141 2.159 2.019 1.883 1.745   | 21:201 8:917 6:312 7:351 6:364 9:878 13:385 18:170 20:252 18:152 20:265 30:192 35:724 39:905 39:860 39:866 32:734 21:421 18:084 19:695 20:150 17:067 13:458 9:976 6:983 5:705 5:136 5:117 5:795  | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>65.876<br>66.866<br>61.866<br>62.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000     | deg 0,000 35.146 38.428 38.428 38.425 38.425 38.425 38.425 38.425 38.425 38.425 38.425 38.525   | -0.443 -0.386 -0.386 -0.406 -0.351 -0.352 -0.352 -0.352 -0.312 -0.322 -0.312 -0.302 -0.000   | 0.000 3.315 2.862 2.090 2.000   | tsf 0.000 80.145 113.497 140.494 148.950 188.592 121.789 190.784 97.513 89.814 92.987 75.262 0.000 0.000 0.000 0.000 0.000 86.665 93.548 94.398 95.823 102.221 108.286 114.703 132.782 153.104 168.246 181.015   | tef 0.718 0.000 0. | sef 0.013  | 10.000   | MPa<br>1,756<br>3,936<br>7,824<br>10,944<br>11,894<br>10,731<br>10,731<br>1,8813<br>7,370<br>5,850<br>4,941<br>5,306<br>4,703<br>3,498<br>2,095<br>2,150<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,257<br>2,2 | 17.556 39.359 78.239 109.440 118.943 109.440 118.943 179.756 188.439 109.440 179.306 88.128 88.128 88.128 88.128 24.982 24.982 24.982 24.982 24.982 24.982 24.982 25.556 26.45 34.00 19.00 | 17,556 39,359 78,239 109,440 118,943 107,306 88,128 107,367 58,499 49,407 53,664 47,029 34,981 24,982 20,955 21,502 23,275 26,743 28,078 32,502 45,940 75,364 47,744 56,445 77,744 78,744 78,744 78,744 78,744 78,744 78,744 78,744 78,747 78,74  |
| \$6 0.100   \$7 0.150   \$8 0.200 | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg H   SE  | 1                                     | 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 0 7 8 8 7 7 8 8 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5   | pef<br>114.551<br>12.915<br>12.915<br>12.915<br>12.915<br>12.915<br>12.915<br>117.733<br>117.733<br>117.733<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>114.551<br>117.733<br>117.733<br>117.733<br>117.733<br>117.733  | bi   | tsf   0.009   0.009   0.009   0.009   0.009   0.008    | tsf  | R 0.000 0.00 | 1,700   5,1   1,700   5,1   1,700   2,700   1,700   1,700   | of bpf of | bof 3 2.755 4 5.363 0 9.012 1 1 1 1 1 1 1 1 1 1 3 1 5 2 1 1 1 1 3 1 5 2 1 1 1 1 1 3 1 5 2 1 1 1 1 1 3 1 5 2 1 1 1 1 3 1 5 3 1 1 1 1 1 3 1 5 2 1 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 3 1 1 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 1 4 1 1 1 1 3 1 5 3 3 1 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 1 3 1 5 3 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 1 3 1 3 1 5 3 1 4 1 1 3 1 3 1 4 1 1 3 1 3 1 4 1 1 3 1 3  | bg1 4 884 9.117 20.496 9.117 15.321 20.496 12.5690 17.524 13.055  | 1146.475 1285.247 1285.247 1285.247 1587.909 1750.741 1511.786 1131.215 793.486 1311.215 793.486 1311.215 793.486 1311.215 793.486 1311.215 169.411 112.259 86.344 93.910 93.514 103.048 133.198 155.548 151.499 149.750 151.497 163.410 176.112 188.136 229.402 271.656 299.257 314.015 308.482 275.915 308.482 275.915  | 5% ef 1.170 (1.077 (1.188 ) ef 1.072 (1.288 ) ef  | 1 0.009<br>0 0.004<br>1 0.009<br>1 0.002<br>1 0.002<br>1 0.002<br>1 0.002<br>1 0.003<br>1 0  | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.002<br>0.003<br>0.002<br>0.003<br>0.003<br>0.002<br>0.003<br>0.003<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806.901 120.954.011 120.9  | MPa 1023 2 307 2 4592 4 592 4 592 4 592 5 168 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7   | 1281 595 1685 310 1747 582 1507 219 1129.785 792.066 580.157 7409.719 311.218 304.322 248.389 171.233 113.642 87.569 85.050 105.168 141.243 156.580 157.246 159.246 15 | 2.264 1.836 1.710 1.763 1.7728 1.678 2.016 2.175 2.237 2.175 2.237 2.363 2.489 2.697 2.489 2.697 2.237 2.363 2.489 2.697 2.237 2.363 2.489 2.697 2.237 2.363 2.489 2.699 2.699 2.699 2.699 2.699 2.699 2.699 2.172 2.721  | 21.201 8.917 8.917 7.351 8.917 7.351 9.878 9.878 9.878 9.878 9.878 9.878 9.878 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978 9.978   | 82.915<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>87.562<br>80.512<br>72.217<br>66.566<br>61.866<br>62.257<br>41.577<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0 | deg 0.000 0.000 38.146 38.428 39.937 38.996 38.573 38.995 68.232 37.039 38.573 38.995 38.232 37.491 38.576 38.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.996 48.573 38.573 38.573 38.573 38.573 38.573 38.573 38.573 38.573 38.573 38.573 38.574 37.574 47.574 47.574 47.574 47.744  | -0.443 -0.386 -0.408 -0.408 -0.408 -0.351 -0.352 -0.352 -0.352 -0.332 -0.312 -0.302 -0.275 -0.236 -0.000   | 0.000<br>3.315<br>2.362<br>2.050<br>2.033<br>2.250<br>2.250<br>3.502<br>2.250<br>3.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | sf   | tsf  | sef 0.013  | 10.000   | MPa<br>1.756<br>3.936<br>7.824<br>10.944<br>11.894<br>10.731<br>8.813<br>8.813<br>5.370<br>5.450<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530<br>1.530 | 17.556 39.359 78.239 78 | 17.556 39.359 39.359 18.239 1059.440 118.943 118.943 118.943 118.943 17.366 18.88.128 88.128 88.128 88.128 88.128 88.128 25.025   |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.400 60 0.500 60   | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg H   SB  | 1                                     | 8 8 8 8 8 7 7 7 7 7 6 6 6 6 6 6 6 6 6 6   | 0 0 0 0 0 0 0 7 8 8 7 8 8 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5   | pd   114.555   120.515   1   | bi   | Use    | isf 0.000 0. | ft 0.000   | 1,700   5,1   1,700   5,1   1,700   5,1   1,700   1,  | of bpf of | bgf   3   2.755   4   5.363   0   9.012   0   9.012   0   1.2056   6   13.347   6   11.892   2   10.308   6   9.079   0   7.680   0   7.680   0   9.06   6.655   8   6.655   6   6.336   2   4.978   3   3.767   7   3.877   2   4.447   9   4.633   1   5.035   6   6.276   6   2.76   6   2.76   8   7.045   5   7.323   7   8.322   7   8.022   7   | bg/ 4 854 9.117 20.486 9.117 20.486 15.321 20.486 20.217 17.524 41.1344 11.344  | 1146.475   1285.471   | 5. ef<br>1.170   10.77<br>1.118   24.144<br>0.527   48.017<br>0.527   48.017<br>0.527   48.017<br>0.527   48.017<br>0.528   57.168<br>0.538   54.047<br>0.753   | 0.009 0.000   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806 91 1200.954   | MPpa 1023 2 307 2 4 592 2 5 5 6 6 2 4 4 3 2 9 3 4 4 2 8 8 5 5 2 7 7 2 7 3 3 2 1 5 6 5 6 7 7 7 7 6 8 3 6 5 2 9 6 5 2 9 6 6 2 9 6 6 2 9 6 6 7 7 7 6 8 3 6 6 5 2 9 6 6 2 9 6 2   | 1281 595 49 1281 5 | 2.294. 1.338. 1.710. 1.780. 1.780. 1.878. 2.191. 1.878. 2.191. 2.  | 21.201   | 82 915 0.000   | deg  | 0.443   0.351   0.354   0.355   0.356  | 0.000<br>3.315<br>2.262<br>2.052<br>2.053<br>2.253<br>2.255<br>3.502<br>2.255<br>3.502<br>2.853<br>3.502<br>2.853<br>3.502<br>2.853<br>3.502<br>2.853<br>3.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | sf   | tsf  | M 1 0.01 1 0.00  | 10.000   | MFs 1,786 3.936 1.1786 3.936 1.1786 3.936 1.1786 3.936 1.1786 3.936 1.1884 1.18   | 17.556 39.359 17.556 39.359 17.556 39.359 17.556 39.359 17.556 39.359 17.556 39.359 17.556 39.356 39 | 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.359 17.556 33.356 43.356 33.356 44.77.229 33.356 43.356  |
| 56 0.100 57 0.150 58 0.200 58 0.200 59 0.256 60 0.300 60 0.300 60 0.300 60 0.400 60 0.600 60 0.500 60   | Depth   Elev   Elev   Elev   R   | Ang qt Ang fs Ang u Ang Rf SB with the fa th Sb fs the fs                           | 1                                     | 8 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 7 7 7 7                                     | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd   114,55151   1   | He   | tell      | tsf  | ft   | 1,700   5,1   1,700   |  | bgf   3   2,755   3   2,755   4   5,363   3   2,755   4   5,363   3   2,755   4   5,363   3   2,755   3   3   3   3   3   3   3   3   3  | bg/ 4 884 9.117 120.486 9.117 120.486 122.696 122.696 123.696 130.655  | 1166.475   1285.247   | 5. ef 1.770 (1.771 (1.772 (1.7  | 0.009   0.009   0.000   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.001<br>0.002<br>0.003<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.   | 1135.806.9491 1135.806.9491 1135.806.9491 1146.8181 1126.9594 11746.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 1126.7476.98181 112776.98181 11276.9  | MPa 1023 123 123 123 123 123 123 123 123 123 1  | 1281 1592 1683 1101 1121 1121 1121 1121 1121 1121 112  | 2.254. 1.762. 2.891. 2.274. 2.175. 2.274. 2.175. 2.  | 21.201 8.917 6.312 7.351 8.917 7.351 8.917 7.351 8.917 8.917 8.917 8.917 8.917 8.918 8.917 8.918 | 82 915 0 000 000 000 000 000 000 000 000 000   | deg 0.000 35.146 38.428 38.428 38.428 38.428 38.428 38.428 38.428 38.428 38.428 38.428 38.428 38.528   | 0.443   0.352  | 0.000<br>3.315<br>2.962<br>2.009<br>2.103<br>2.203<br>2.203<br>2.203<br>2.203<br>2.203<br>2.203<br>2.203<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.  | sf   | tsf 0.718 0.000 0.718 0.000 0. | will will be a series of the control | 10.000  | MFa 1,756 3.936 1.1756 3.936 1   | 17.556 39.359 17.556 39.359 17.7556 39.3556 39.3556 39.3556 39.3556 39.3556 39.3556 39.3556 39.3556 39.3556 39. | 177.556 33 359 178 229 179 249 25 25 25 25 25 25 25 25 25 25 25 25 25   |
| 56 0.100 58 0.200 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.500 60   | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Avg qt   Avg fs   Avg u   Avg ft   S8   | 0                                     | 8 8 8 8 8 8 7 7 7 7 7 7 6 6 6 6 6 6 6 7 7 7 7                                     | 0 0 0 0 0 0 0 7 8 8 7 8 8 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5   | pd   | bi   | State  | tsf  | R 10000 1000 | 1,700   5,1   1,700   | Maintain   | bor  | bg1 bg1 bg1 bg1 bg2 bg3 bg3 bg3 bg3 bg3 bg4  | 1146.475   1285.247   | 5% ef 1.170 (1.077 (1.188 ) ef 1.170 (1.077 (1.188 ) ef 1.170 (1.1  | 0.009 0.000   | 0.009 0.000  | 1135.806.01<br>1135.806.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1168.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.0394.01<br>1176.03   | MPa 1237 1240 1240 1240 1240 1240 1240 1240 1240  | 1281 593 693 1152 548 693 1152  | 2,264<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275<br>2,275 | 21.201 58 917 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 6312 7351 7351 7351 7351 7351 7351 7351 7351   | 82 915 050 050 050 050 050 050 050 050 050 0   | deg 0 000 000 000 000 000 000 000 000 000  | 0.432<br>0.322<br>0.325<br>0.326<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0. | 0.000 3.315 2.2602 2.000 2.000 2.103 2.2502 2.103 2.2503 2.103 2.2503 2.103 2.2503 3.002 2.003 3.007 3  | sf   | tsf  | 61 0.013 0.003 0.0 | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MFa 1,756 3.936 1.1756 3.936 3.936 1.1756 3.   | 17.556 39.359 39.359 17.556 39.359 39 | 177.556 33 359 178.291 179.256 33 359 178.291 179.256 33 359 178.291 179.246 1  |
| 56 0 .000 57 0 .156 58 0 .200 58 0 .200 58 0 .200 60 0 .300 60 0 .500 60 0 .600 60 0 .600 60 0 .600 60 0 .600 60 0 .500 60 0 .  | Depth   Elev   Elev   Elev   R   m   m   m   m   m   m   m   m   m   | Avg qt   Avg fs   Avg u   Avg H   SE  | 1                                     | 8 8 8 8 8 9 9 9 9 9 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114.551524<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>117.7332<br>117.7332<br>117.7332<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151<br>114.55151   | bi   | tst   color    | isf  | R 0.000 0.000 0.00000 0.0000  | 1,700   5,1   1,700   5,1   1,700   5,2   1,700   5,2   1,700   5,2   1,700   5,2   1,700   5,2   1,700   1,  | Maintain   | bord  | bg/ 4.684 9.117 1.15.21 1.20.456 9.117 1.20.456 9.117 1.20.456 9.12.21 1.5.21 1 | 1146.475   1285.247   1285.247   1285.247   1285.247   1285.247   1285.247   1285.247   1287.247   131.121   131.121   131.1229   13  | 5. ef<br>1.770 10.77<br>1.118 24.141<br>5.527 48.01.71<br>5.527 48.01.71<br>5.527 48.01.71<br>5.527 48.01.71<br>5.527 47.11<br>5.528 54.01<br>5.538 54.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01<br>55.01 | 0.009 0.000   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.000<br>0.001<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806.01 1280.934.01 1280.9  | MPa 1.023 2.037 1.023 2.037 1.023 2.037 1.023 2.037 1.023 2.037 1.023 2.037 1.023 2.037 1.  | 1281 ISS9 (1885 310 ISS) 1281 ISS9 (1885 310 ISS9 310 ISS | 2.284.1.189.2.265.2.267.2.268.2.268.2.267.2.268.2.268.2.267.2.268.2.268.2.269.2.268.2.269.2.268.2.269.209.2.269.2.269.2.269.2.269.2.269.2.269.2.269.2.269.2.269.2.269.2.  | 21.201 - 201 | 82 915 0.000   | deg  | 0.443   0.384   0.384   0.384   0.384   0.384   0.386   0.384   0.386  | 0.000<br>3.315<br>2.962<br>2.902<br>2.003<br>2.403<br>2.259<br>2.425<br>2.259<br>3.502<br>2.455<br>3.502<br>2.450<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.005<br>3.  | sf   | tsf  | sf   | 10.000   | MFs 1756 3 1936 1 1756  | 17.556 39.359 1009.440 1009.45 | 17.556 39.359 19.1556  |
| 56 0.100 58 0.200 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.500 60   | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg H   SE  | 0                                     | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114.551524<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>120.919124<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.7332<br>117.   | bi   | tst   color    | her   0.000  | R 10000 1000 | 1,700   5,1   1,700   | Maintain   | bpr   c   c   c   c   c   c   c   c   c  | bg1 bg1 bg1 bg1 bg2 bg3 bg3 bg3 bg3 bg3 bg4  | 1146.475   1285.247   | 5. ef 1.170 1.077 1.118 24.141  | 0.009 0.000   | 0.009 0.000  | 1135.806.01 1205.941 1315.806.01 1205.941 1746.98181 17  | MPa 102 103 104 105 105 105 105 105 105 105 105 105 105   | 1281 593 693 113 642 643 643 643 643 643 643 643 643 643 643   | 2,264<br>1,265<br>1,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176<br>2,176 | 21.201 58 917 6312 58 917 6312 6312 6312 6312 6312 6312 6312 6312  | 82 915   | deg 0 000 000 000 000 000 000 000 000 000  | 0.432<br>0.322<br>0.325<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0.327<br>0. | 0.000<br>3.315<br>2.052<br>2.059<br>2.059<br>2.152<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.  | sr   13.487   13.487   14.088   14.788  | tsf 0.718 0.000 0. | 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MFs 3.936 1.756 3.936 1.756 3.936 1.756 3.936 1.756 1.   | 17.556 39.359 39.359 17.556 39.359 39 | 17.556 39.359 17.556 39.359 39.59 39  |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 61 0.350 66 0.500 67 0.600 67 0.600 67 0.600 67 0.600 68 0.700 69 0.750 77 0.600 69 0.750 77 0.600 69 0.750 78 1.000 77 0.600 69 0.750 78 1.000 78 1.000 78 1.000 78 1.000 78 1.000 78 1.000 78 1.000 78 1.000 79 1.500 78 1.000 78 1.000 79 1.000   | Depth   Elev     | Avg qt   Avg fs   Avg u   Avg H   SE  | 1                                     | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 7 8 8 7 8 7 8 8 7 8 8 6 5 6 5 6 5 6 5 6 5 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 7 7 6 6 6 6 5 6 6 5 6 6 5 6 6 5 6 6 6 5 6 6 6 5 6   | pd<br>114.551512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>120.151512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14.551512<br>14   | bi   | state  | 187 0.000 0. | R 0.0000   | 1700   17  | Maintain   | 1   2   2   3   3   3   3   3   3   3   3  | bp1 4 4884 9.117 120.4980 9.117 120.4980 120.217 15.321 16.321 16.321 17.321  | 146.475   1285.247   1  | 5. ef<br>1.170   10.77<br>1.118   24.141<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.528   45.021<br>0.538   54.041<br>0.538   | 0.009 0.001   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806 1200 1240 1240 1240 1240 1240 1240 1240  | MPa 1,023 2,031 1,023 2,037 1,023 2,037 1,023 2,037 1,023 2,037 1,023 2,037 1,037 2,038 2,  | 12815930 1747982 1752548 181514 1752548 181515548 181514 1752548 181514 181518151 181514 181514 181514 181514 181514 181514 181514 181514 1815 | 2.261<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763<br>1.763 | 21.201   | 82 915 0 000 0 000 0 000 0 000 0 000 0 000 0 0   | deg  | 0.443 4.0386 4.0386 4.0386 4.0386 4.0386 4.0387 4.0   | 0.000<br>3.315<br>2.052<br>2.059<br>2.059<br>2.152<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.250<br>2.  | st   13.487   13.487   13.487   13.487   13.487   13.487   13.487   14.0484   14.0484   14.0484   13.487   13.4   | tisf   | sid   0.013    | 19 0000 0 0000 0 0000 0 0000 0 0000 0 0000   | MFs 3.936 1.756 3.936 1.756 3.936 1.756 3.936 1.756 1.   | 17.556 39.359 19.1556 29.250 2 | 17.556 39.359 176.259 177.556 39.359 39.359 176.259 17  |
| 56 0.100 57 0.150 58 0.200 58 0.200 60 0.300 60 0.300 60 0.300 60 0.400 60 0.600 60 0.600 60 0.600 60 0.600 60 0.600 60 0.750 71 0.600 60 0.750 72 0.500 60 0.750 77 1.100 77 1.100 77 1.100 78 1.500 60 0.600 60 0.600 60 0.750 79 1.500 60 0.750 79 1.500 60 0.750 79 1.500 60 0.750 79 1.500 60 0.750 60   | Depth   Elev   Elev   Elev   R   | Avg qt   Avg fs   Avg u   Avg ft   SE   | 1                                     | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | pd<br>114.85114251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>120.91914251<br>12   | st   c   c   c   c   c   c   c   c   c   | state  | 187 0.000 0. | R 0.000  | 1700   17  | Maintain   | bpf   c  | bp1 4 4884 9.117 15.321 20.496 15.321 15.321 15.321 15.321 15.321 15.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 16.321 26.321 | 1146.475   1285.347   | 5. ef 1.770 (1.771 (1.772 (1.7  | 0.009 0.000   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806.03   1200.948  | MPa 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,023 2,307 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,773 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,707 1,215 2,772 3,  | 1281599 (1985) 11747982 (1985) 1174798 (1985) 11747982 (1985)  | 2.261<br>1.536<br>1.710<br>2.015<br>2.015<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237<br>2.237 | 21.201 6.312 | 82 915 0 0.000 0.0   | deg  | 0.443   0.384   0.384   0.384   0.384   0.386   0.384   0.386   0.385  | 0.000<br>3.315<br>2.962<br>2.090<br>2.103<br>2.103<br>2.250<br>2.250<br>2.250<br>2.250<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>3.052<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>2.251<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.351<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.352<br>3.  | set   13.487   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   14.6484   16.6484   1   | tsf  | Section   Sect   | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MFs 3 1756 1 175   | 17.556 39.359 17.556 39.359 17.556 39.359 17.562 39.352 39.352 39.352 39.352 39.352 39.352 39.352 39 | 17, 556 39, 359 177, 556 39, 359 179, 249 179, 2  |
| 56 0.100 57 0.150 58 0.200 58 0.300 58 0.300 60 0.500 60   | Depth   Elev   Elev   Elev   R   | Avg qt   Avg fs   Avg u   Avg H   SE  | 1                                     | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8   | 0 0 0 0 0 0 0 7 8 8 7 8 8 6 5 6 5 6 5 6 5 7 6 6 7 7 6 7 8 7 8 7 7 8 8 8 7 7 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 8 | per  | st   c   c   c   c   c   c   c   c   c   | state  | 187 0.000 0. | R 0.000  | 1.70  | Mail:   Mail   | bpf   c   c   c   c   c   c   c   c   c  | bp1 4 4884 9.117 120.4980 9.117 120.4980 120.217 15.321 13.4980 120.217 15.325 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 15.321 16.321  | 146.475   1285.247   1  | 5. ef<br>1.170   10.77<br>1.118   24.141<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.527   40.011<br>0.528   45.021<br>0.538   54.041<br>0.538   | 0.009 0.000   | 0.009<br>0.004<br>0.002<br>0.002<br>0.002<br>0.002<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.001<br>0.003<br>0.003<br>0.001<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003<br>0.003  | 1135.806.01<br>1205.924.01<br>1746.981.01<br>1746.981.01<br>1746.981.01<br>1746.981.01<br>1746.981.01<br>1746.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.981.01<br>1756.9  | MPa 1,023 2,307 1,  | 1281599 (1985) ( | 2.261<br>1.780<br>1.780<br>1.780<br>1.780<br>1.780<br>1.780<br>1.780<br>1.780<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016<br>2.016 | 21.201   | 82 915 0 000 000 000 000 000 000 000 000 000   | deg  | 0.443 4.0384 4.0386 4.0386 4.0386 4.0386 4.0386 4.0387 4.0   | 0.000<br>3.315<br>2.382<br>2.992<br>2.093<br>2.103<br>2.103<br>2.250<br>2.250<br>2.250<br>3.352<br>2.853<br>3.052<br>3.052<br>2.853<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>2.959<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.052<br>3.  | el   0.000   0   | tel  | side   10  | 10 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | MFs 1,756  | 17.556 39.359 19.15756 29.258  | 17.556 39.359 176.259 177.556 39.359 39.359 176.259 17  |

| A B C D E F G H I  | J K   | L M               | N  | O P<br>0.453 0.453   | Q  | R S  | T 40.043   | U  | V W<br>6.626 10.062  | X .  | Y Z  | AA   | AB AC AD   | AE<br>C4 222  | AF AG<br>2 433 27 785  | AH AI  | -D 222  | AK<br>3.278   | AL AM<br>90.818 0.000  | AN   | AO AP<br>0.000 4.029   | AQ AR<br>40.285 40.2   |
|--|-------|-------------------|--|--|--|--|--|--|--|--|--|--|--|---|--|--|---|---|--|--|--|--|
| 101 2.350 7.710 -2.350 -7.710 27.895 0.600 -0.790 2.166 6  | 5 7   | 6 5               |  | 0.453 0.453  |  | .000 1.50  | 03 9.523   | 14.312   | 6.036 9.072  | 52.774 2.1   | 144 24.390   | 0.000  | 0.000 52.748 2.380   | 53.748  | 2.433 27.765   | 37.817 34.690  | -0.222  |   | 86.188 0.000   | 0.000  | 0.000 4.029  |  |
| 103 2.450 8.038 -2.450 -8.038 22.912 0.453 3.480 1.977 6   | 5 7   | 6 5               | 114.551  | 0.472 0.472  | 0.000 0  | .000 1.48  | 88 8.780   | 13.063   | 5.604 8.338  | 47.588 2.0   | 19 22.440  | 0.005  | 0.005 47.357 2.185   | 48.357  | 2.480 29.810   | 35.198 34.254  | -0.184  | 3.611   | 82.772 0.000   | 0.000  | 0.000 3.266  | 32.657 32.65   |
| 104 2.500 8.202 -2.500 -8.202 20.115 0.416 3.950 2.068 6   | 5 7   | 6 5               | 114.551  | 0.481 0.481  | 0.000 0  | .000 1.47  | 73 7.708   | 11.355   | 5.065 7.463  | 40.823 2.1   | 119 19.634   | 0.006  | 0.006 40.566 1.915   | 41.566  | 2.541 32.563   | 31.183 33.585  | -0.173  | 0.000   | 0.000 0.000  | 0.000  | 0.000 2.839  | 28.389 28.38   |
| 105 2.550 8.366 -2.550 -8.366 21.861 0.312 8.090 1.427 6   | 5 7   | 6 5               | 114.551  | 0.491 0.491  | 0.000 0  | .000 1.45  | 59 8.377   | 12.222   | 5.199 7.585<br>5.769 8.337   | 43.582 1.4   | 160 21.370   | 0.012  | 0.012 43.067 2.070   | 44.067  | 2.420 27.233   | 33.291 33.936  | -0.141  | 3.715   | 81.248 0.000<br>86.552 0.000   | 0.000  | 0.000 3.056  | 30.556 30.55   |
| 106 2.600 8.530 -2.600 -8.530 24.253 0.396 5.270 1.633 6<br>107 2.650 8.694 -2.650 -8.694 21.380 0.473 1.590 2.212 6   |       | 6 5               | 114.551  | 0.500 0.500<br>0.509 0.509   | 0.000 0<br>0.000 n   | .000 1.44  | 45 9.294<br>32 8.193   | 13.432   | 5.769 8.337<br>5.402 7.735   | 47.531 1.6<br>40.993 2.2   | 266 20 871   | 0.007  | 0.007 47.202 2.308   | 46.202<br>41.895  | 2.420 27.249<br>2.548 32.877   | 32.115 33.740  | -0.163<br>-0.182  | 3.56/<br>0.000  | 86.552 0.000<br>0.000 0.000  | 0.000  | 0.000 3.358<br>0.000 2.933   | 33.580 33.58<br>29.327 29.32   |
| 108 2.700 8.858 -2.700 -8.858 18.521 0.389 1.800 2.100 6   | 5 6   | 6 4               | 114.551  | 0.519 0.519  | 0.000 0  | .000 1.41  | 19 7.097   | 10.070   | 4.772 6.771  | 34.719 2.1   | 161 18.003   | 0.003  | 0.003 34.610 1.769   | 35.611  | 2.588 34.774   | 0.000 33.011   | -0.158  | 0.000   | 0.000 0.000  | 0.000  | 0.000 2.517  | 25.175 25.17   |
| 109 2.750 9.022 -2.750 -9.022 14.115 0.438 3.990 3.103 5   |       | 5 4               |  | 0.528 0.528  |  | .000 1.40  |  |  | 3.829 7.287  | 25.737 3.2   | 224 13.587   | 0.009  | 0.009 25.501 1.340   | 26.501  | 2.689 39.851   | 0.000 0.000  | 0.000   |   | 0.000 0.906  | 0.016  | 10.000 1.901   | 19.014 25.73   |
| 110 2.800 9.186 -2.800 -9.186 14.574 0.438 10.310 3.005 5<br>111 2.850 9.350 -2.850 -9.350 21.615 0.275 8.820 1.272 6  |       | 5 4               | 114.551  | 0.538 0.538  | 0.000 0  | .000 1.39  | 94 6.981<br>B2 8.283   |  | 3.924 7.343<br>5.132 7.091   | 26.124 3.1   | 120 14.037   | 0.022  | 0.023 25.525 1.365   | 26.525  | 2.675 39.115   | 0.000 0.000  | 0.000   | 0.000   | 0.000 0.936<br>0.000 0.000   | 0.040  | 10.000 1.946   | 19.461 26.12   |
| 111 2.850 9.350 -2.850 -9.350 21.615 0.275 8.820 1.272 6<br>112 2.900 9.514 -2.900 -9.514 26.314 0.213 -4.220 0.809 7  | 5 7   | 6 5               | 117.733  | 0.547 0.547  | 0.000 0  | 000 1.38   | 82 8.283<br>70 8.403   |  | 5.132 7.091<br>5.785 7.925   | 38.536 1.3<br>46.307 0.4   | 305 21.068<br>327 25.757   | -0.013   | .0.013 38.033 2.044<br>.0.005 46.543 2.533   | 47.543  | 2.416 27.077   | 31.408 33.622  | -0.118  | 3.523   | 92.740 0.000   | 0.000  | 0.000 2.861  | 28.613 28.61   |
| 113 2.950 9.678 -2.950 -9.678 24.126 0.212 0.930 0.879 7   |       | 6 5               | 117.733  | 0.566 0.566  | 0.000 0  | .000 1.35  |  | 10.463   | 5.429 7.374  |  | 900 23.560   | 0.001  | 0.001 41.582 2.308   | 42.582  | 2.296 22.378   | 34.064 34.065  | -0.096  |   | 88.654 0.000   | 0.000  | 0.000 3.139  | 31.390 31.39   |
| 114 3.000 9.842 -3.000 -9.842 21.495 0.249 -0.850 1.158 6  |       | 6 5               |  | 0.576 0.576  | 0.000 0  | .000 1.34  | 47 0.207   |  | 5.079 6.840  |  | 190 20.919   | -0.001   | -0.001 36.401 2.062  | 37.401  | 2.406 26.644   | 30.515 33.473  | -0.106  | 0.000   | 0.000 0.000  | 0.000  | 0.000 2.773  | 27.735 27.73   |
| 115 3.050 10.006 -3.050 -10.006 23.076 0.280 -0.650 1.213 6  |       | 6 5               |  | 0.585 0.585<br>0.595 0.595   | 0.000 0  | .000 1.33  | 36 8.843<br>25 8.850   |  | 5.422 7.243<br>6.201 8.218   |  | 245 22.491   | -0.001   | -0.001 38.493 2.213  | 39.493  | 2.393 26.142<br>2.283 21.889   | 32.317 33.774  | -0.115  | 0.000<br>3.493  | 0.000 0.000<br>96.854 0.000  | 0.000  | 0.000 2.953  | 29.535 29.53<br>35.187 35.18   |
| 116 3.100 10.170 -3.100 -10.170 27.715 0.277 -2.350 0.999 7<br>117 3.150 10.335 -3.150 -10.335 34.723 0.240 -5.990 0.691 7   |       | 6 5               |  | 0.595 0.595  |  | 000 1.32   | 25 8.650   |  | 7.252 9.534  |  | 703 34 119   | -0.003   | -0.003 45.756 2.662<br>-0.005 56.798 3.344   | 57 798  | 2 118 16 352   | 43 567 35 649  | -0.115  | 3.493   | 96.854 0.000   | 0.000  | 0.000 3.519  | 43 730 43 73   |
| 118 3.200 10.499 -3.200 -10.499 39.506 0.231 -11.780 0.585 7   |       | 6 6               | 117.733  | 0.614 0.614  | 0.000 0  | .000 1.30  | 04 12.616  | 16.454   | 7.987 10.417   | 63.380 0.5   | 594 38.893   | -0.009   | -0.009 63.979 3.820  | 64.979  | 2.036 13.933   | 47.039 36.227  | -0.101  | 2.961   | 117.016 0.000  | 0.000  | 0.000 4.936  | 49.362 49.36   |
| 119 3.250 10.663 -3.250 -10.663 43.470 0.255 -11.230 0.587 8   | 6 8   | 6 6               | 120.915  | 0.624 0.624  | 0.000 0  | .000 1.29  |  |  |  |  | 95 42.846  | -0.008   | -0.008 69.289 4.198  | 70.289  | 2.003 13.028   | 49.553 36.646  | -0.109  | 2.830   | 123.082 0.000  | 0.000  | 0.000 5.389<br>0.000 5.839   | 53.886 53.88   |
| 120 3.300 10.827 -3.300 -10.827 47.475 0.337 -10.490 0.710 8<br>121 3.350 10.991 -3.350 -10.991 49.413 0.427 -9.160 0.864 7  | 6 8   | 6 6               | 120.915  | 0.634 0.634  | 0.000 0  | .000 1.28  | 84 11.370  | 14.597   | 9.524 12.226<br>10.049 12.803  | 73.958 0.3<br>75.831 0.8   | 719 46.841   | -0.007   | -0.00/ /4.4/5 4.5/9  | 75.475  | 2.016 13.3/3   | 51.853 37.030  | -0.131  | 2.716   | 129.007 0.000<br>132.088 0.000   | 0.000  | 0.000 5.839  | 58.388 58.38<br>60.307 60.30   |
| 122 3.400 11.155 -3.400 -11.155 51.011 0.437 -7.820 0.857 7  | 6 8   | 6 5               | 117.733  | 0.653 0.653  | 0.000 0  | .000 1.26  | 55 16.290  | 20.102   | 10.330 13.063  | 77.143 0.8   | 368 50.358   | -0.005   | -0.005 77.517 4.910  | 78.517  | 2.040 14.052   | 53.479 37.301  | -0.151  | 2.639   | 134.696 0.000  | 0.000  | 0.000 6.180  | 61.796 61.79   |
| 123 3.450 11.319 -3.450 -11.319 53.729 0.514 -6.610 0.957 7  |       | 6 5               |  | 0.663 0.663  |  | .000 1.25  |  |  | 10.931 13.721  |  | 969 53.066   | -0.004   | -0.004 80.418 5.167  |   | 2.052 14.388   | 54.756 37.513  |   |   | 138.762 0.000  | 0.000  | 0.000 6.461  |  |
| 124 3.500 11.483 -3.500 -11.483 56.079 0.566 -4.910 1.009 7  |       | 6 5               |  | 0.672 0.672<br>0.682 0.682   |  | .000 1.24  |  |  | 11.415 14.225<br>12.087 14.955   |  | 022 55.407<br>751 61.277   | -0.003   | -0.003 82.667 5.387<br>-0.003 90.094 5.951   | 83.667<br>91.094  | 2.053 14.424<br>1.942 11.442   | 55.776 37.683  | -0.171<br>-0.152  |   | 142.336 0.000<br>150.556 0.000   | 0.000  | 0.000 6.695<br>0.000 7.344   | 66.953 66.95<br>73.439 73.43   |
| 125 3.550 11.647 -3.550 -11.647 61.959 0.460 -5.040 0.742 8<br>126 3.600 11.811 -3.600 -11.811 66.032 0.343 -7.730 0.519 8   | 6 8   | 6 6               | 120.915  | 0.692 0.692  | 0.000 0  | .000 1.23  |  | 19.426 1   | 12.395 15.226  | 94 448 0 5   | 525 65.340   | -0.003   | -0.003 90.094 5.951  | 95.797  | 1.942 11.442   | 60.045 38.395  | -0.152  | 2.429   | 156.466 0.000  | 0.000  | 0.000 7.344  | 77.704 77.70   |
| 127 3.650 11.975 -3.650 -11.975 65.395 0.370 -10.350 0.566 8   | 6 8   | 6 6               | 120.915  | 0.702 0.702  |  | .000 1.22  | 20 15.662  | 19.102 1   | 12.390 15.112  |  | 572 64.694   | -0.005   | -0.005 92.653 6.296  | 93.653  | 1.864 9.536  | 59.563 38.315  | -0.131  | 2.386   | 156.104 0.000  | 0.000  | 0.000 7.641  | 76.409 76.40   |
| 128 3.700 12.139 -3.700 -12.139 58.879 0.535 -11.320 0.909 8   | 6 8   | 6 5               | 120.915  | 0.712 0.712  |  | .000 1.21  |  |  | 11.827 14.323  |  | 920 58.168   | -0.006   | -0.006 82.234 5.674  | 83.234  | 2.019 13.465   | 56.353 37.780  | -0.161  |   | 147.999 0.000  | 0.000  | 0.000 6.831  | 68.315 68.31   |
| 129 3.750 12.303 -3.750 -12.303 50.400 0.598 -11.290 1.187 7   | 5 8   | 6 5               | 117.733  | 0.722 0.722<br>0.731 0.731   |  | .000 1.20  |  |  | 10.644 12.804<br>9.800 11.710  |  | 204 49.678<br>380 44.193   | -0.007<br>-0.007   | -0.007 69.350 4.862<br>-0.007 60.898 4.335   | 70.350<br>61.898  | 2.145 17.207   | 51.700 37.004<br>48.213 36.423   | -0.170<br>-0.170  | 2.724   | 137.326 0.000<br>130.295 0.000   | 0.000  | 0.000 5.808<br>0.000 5.143   | 58.078 58.07<br>51.426 51.42   |
| 130 3.800 12.467 -3.800 -12.467 44.924 0.610 -10.500 1.358 7   |       | 6 5               |  | 0.731 0.731  |  | .000 1.19  |  |  | 9.800 11.710<br>9.135 10.844   |  | 756 43.650   | -0.007   | -0.007 59.328 4.335<br>-0.007 59.328 4.281   | 61.898  | 2.223 19.784 2.081 15.228  | 48.213 36.423<br>47.683 36.335   |   |   | 129.977 0.000  | 0.000  | 0.000 5.143  | 50.483 50.48   |
| 132 3.900 12.795 -3.900 -12.795 38.497 0.291 -8.470 0.756 7  | 5 8   | 6 5               | 117.733  | 0.751 0.751  | 0.000 0  | .000 1.17  | 79 12.293  | 14.499   | 8.114 9.569  | 50.303 0.7   | 771 37.747   | -0.007   | -0.007 50.655 3.713  | 51.655  | 2.140 17.046   | 43.414 35.623  | -0.101  | 3.156   | 121.566 0.000  | 0.000  | 0.000 4.350  | 43.498 43.49   |
| 133 3.950 12.959 -3.950 -12.959 29.878 0.431 -0.400 1.443 6  | 5 7   | 6 5               | 114.551  | 0.760 0.760  |  | .000 1.17  |  |  | 7.010 8.216  |  | 180 29.118<br>188 20.868   | -0.000   | -0.000 38.333 2.863  | 39.333  | 2.390 26.017   | 35.968 34.382  | -0.130  | 3.569   | 106.671 0.000  | 0.000  | 0.000 3.355  | 33.546 33.54   |
| 134 4.000 13.123 -4.000 -13.123 21.637 0.394 -2.040 1.821 6<br>135 4.050 13.287 -4.050 -13.287 16.053 0.326 -1.170 2.031 5   | 4 7   | 5 5               | 114.551  | 0.770 0.770  | 0.000 0  | .000 1.16  | 55 8.291<br>58 7.689   | 9.658<br>8.903   | 5.520 6.430<br>4.317 5.507   | 27.126 1.8<br>19.615 2.1   | 388 20.868   | -0.003   | -0.003 27.208 2.079<br>-0.002 19.662 1.641   | 28.208  | 2.568 33.814   | 0.000 32.811   | -0.118  | 0.000   | 0.000 0.000<br>0.000 1.019   | 0.000  | 0.000 2.415  | 24.145 24.14   |
| 138 4.100 13.451 -4.100 -13.451 14.761 0.174 1.720 1.179 6   | 4 6   | 5 5               | 114.551  | 0.779 0.779  |  | .000 1.15  | 51 5.656   | 6.510  | 3.812 4.641  | 17.730 1.2   | 245 13.973   | 0.002  | 0.002 19.662 1.541   | 18.661  | 2.593 34.993   | 0.000 0.000  | -0.039  | 0.000   | 0.000 0.000  | 0.000  | 0.000 1.627  | 16.274 17.21   |
| 137 4.150 13.615 -4.150 -13.615 15.729 0.138 4.600 0.877 6   | 5 6   | 5 5               | 114.551  | 0.798 0.798  | 0.000 0  | .000 1.14  | 44 6.027   | 6.896  | 3.937 4.504  | 18.723 0.9   | 924 14.931   | 0.009  | 0.010 18.543 1.493   | 19.543  | 2.529 31.984   | 0.000 31.202   | -0.022  | 0.000   | 0.000 0.000  | 0.000  | 0.000 1.724  | 17.239 17.23   |
| 138 4.200 13.779 -4.200 -13.779 14.286 0.148 5.770 1.036 6   | 4 6   | 5 5               | 114.551  | 0.807 0.807<br>0.817 0.817   |  | .000 1.13  | 37 5.474<br>31 5.418   |  | 3.674 4.399<br>3.761 4.532   | 16.705 1.0<br>16.322 1.0   | 098 13.479<br>179 13.324   | 0.013  | 0.013 16.482 1.351<br>0.015 16.078 1.336   | 17.482<br>17.078  | 2.584 34.573<br>2.651 37.892   | 0.000 30.714   | -0.024<br>-0.043  |   | 0.000 0.000  | 0.000  | 0.000 1.557  | 15.566 16.38<br>15.318 16.33   |
| 139 4.250 13.943 -4.250 -13.943 14.140 0.197 6.380 1.393 6   | 4 6   | 5 4               |  | 0.817 0.817<br>0.826 0.826   |  | .000 1.13  |  |  | 3.761 4.532<br>3.776 4.486   |  | 179 13.324<br>377 12.837   | 0.014  | 0.015 16.078 1.336<br>0.017 15.290 1.289   | 17.078<br>16.290  | 2.651 37.892<br>2.724 41.757   | 0.000 30.637<br>0.000 0.000  |   |   | 0.000 0.000<br>0.000 0.856   | 0.000  | 0.000 1.532<br>4.807 1.472   | 10.010 10.02   |
| 141 4.350 14.271 -4.350 -14.271 13.177 0.248 7.590 1.882 5   |       | 5 4               |  | 0.835 0.835  | 0.000 0  | .000 1.11  | 18 6.312   | 7.057  | 3.711 4.344  | 14.780 2.0   | 009 12.342   | 0.018  | 0.017 13.250 1.269   | 15.496  | 2.759 43.659   | 0.000 0.000  |   | 0.000   | 0.000 0.823  | 0.030  | 4.454 1.411  | 14.114 14.78   |
| 142 4.400 14.436 -4.400 -14.436 13.550 0.238 8.030 1.756 5   | 4 6   | 5 4               | 114.551  | 0.845 0.845  |  | .000 1.11  | 12 6.491   | 7.216  | 3.768 4.367  |  | 373 12.706   | 0.019  | 0.020 14.749 1.274   | 15.749  | 2.736 42.377   | 0.000 0.000  | 0.000   |   | 0.000 0.847  | 0.031  | 4.575 1.443  | 14.432 15.04   |
| 143 4.450 14.600 -4.450 -14.600 11.170 0.260 8.070 2.328 5<br>144 4.500 14.764 -4.500 -14.764 9.255 0.241 8.850 2.604 4  | 3 5   | 4 4               |  | 0.854 0.854<br>0.864 0.864   |  | .000 1.10  |  |  | 3.379 3.816<br>2.992 3.281   | 12.082 2.5<br>9.721 2.8  | 520 10.317<br>372 8.392  | 0.023  | 0.024 11.787 1.046<br>0.033 9.401 0.860  | 12.787  | 2.886 51.148<br>2.996 58.236   | 0.000 0.000<br>0.000 0.000   | 0.000   |   | 0.000 0.688<br>0.000 0.560   | 0.032  | 3.310 1.183<br>2.439 0.975   | 11.832 12.08   |
| 144 4.500 14.764 -4.500 -14.764 9.255 0.241 8.850 2.604 4<br>145 4.550 14.928 -4.550 -14.928 12.029 0.205 11.120 1.704 5   | 4 6   | 4 3               |  | 0.804 0.804  |  | 000 1.10   |  |  | 3.447 3.824  | 9.721 2.8  | 37 11 157  | 0.030  | 0.033 9.401 0.660  | 13.387  | 2.990 58.230   | 0.000 0.000  | 0.000   |   | 0.000 0.560  | 0.035  | 3.593 1.260  | 12 604 12 78   |
| 146 4.600 15.092 -4.600 -15.092 11.248 0.213 10.830 1.894 5  | 4 5   | 4 4               | 114.551  | 0.882 0.882  | 0.000 0  | .000 1.08  |  |  | 3.328 3.629  | 11.752 2.0   | 055 10.366   | 0.030  | 0.033 11.368 1.045   | 12.368  | 2.848 48.793   | 0.000 0.000  | 0.000   | 0.000   | 0.000 0.691  | 0.042  | 3.180 1.172  | 11.722 11.75   |
| 147 4.650 15.256 -4.650 -15.256 9.257 0.183 10.660 1.977 5   |       | 4 3               |  | 0.892 0.892  |  | .000 1.08  |  |  | 2.899 3.068  |  | 188 8.365  | 0.036  | 0.040 9.010 0.855  | 10.011  | 2.945 54.840   | 0.000 0.000  |   |   | 0.000 0.558  | 0.042  | 2.325 0.960  | 9.596 9.38   |
| 148 4.700 15.420 -4.700 -15.420 7.568 0.129 12.430 1.705 5   |       | 4 3<br>3 3        |  | 0.901 0.901  |  | .000 1.07  |  |  | 2.461 2.512<br>0.000 0.000   |  | 335 6.667<br>350 5.514   | 0.051  | 0.058 6.970 0.688<br>0.085 5.542 0.570   | 7.970<br>6.543  | 3.006 58.865<br>3.048 0.000  | 0.000 0.000  |   |   | 0.000 0.445<br>0.000 0.368   | 0.049  | 1.712 0.780<br>1.353 0.659   | 7.804 7.40<br>6.591 6.05   |
| 150 4.800 15.748 -4.800 -15.748 4.956 0.083 18.520 1.675 1   |       | 3 3               |  | 0.920 0.920  |  | .000 1.06  |  |  | 0.000 0.000  |  | 56 4.036   | 0.073  | 0.143 3.762 0.419  | 4.762   | 3.216 0.000  | 0.000 0.000  |   | 0.000   | 0.000 0.369  | 0.039  | 0.978 0.506  | 5.059 4.39   |
| 151 4.850 15.912 -4.850 -15.912 4.737 0.085 25.160 1.794 1   | 3 3   | 3 3               | 111.369  | 0.929 0.929  | 0.000 0  | .000 1.06  | 50 2.269   | 2.406  | 0.000 0.000  | 4.103 2.2  | 232 3.809  | 0.166  | 0.206 3.256 0.379  | 4.257   | 3.259 0.000  | 0.000 0.000  | 0.000   |   | 0.000 0.254  | 0.098  | 0.921 0.481  | 4.812 4.10   |
| 152 4.900 16.076 -4.900 -16.076 4.320 0.076 35.270 1.759 1<br>153 4.950 16.240 -4.950 -16.240 4.401 0.073 65.860 1.659 1   | 3 3   | 3 3               |  | 0.938 0.938  |  | .000 1.05  |  |  | 0.000 0.000  | 3.608 2.2  | 247 3.383<br>113 3.455   | 0.255  | 0.326 2.433 0.308<br>0.595 1.477 0.225   | 3.434   | 3.310 0.000<br>3.293 0.000   | 0.000 0.000  | 0.000   |   | 0.000 0.226<br>0.000 0.230   | 0.138  | 0.831 0.437  | 4.367 3.60<br>4.427 3.64   |
| 153 4.950 16.240 -4.950 -16.240 4.401 0.073 65.860 1.659 1<br>154 5.000 16.404 -5.000 -16.404 4.307 0.074 76.380 1.718 1   | 3 3   | 3 1               |  | 0.947 0.947  |  | 000 1.05   |  |  | 0.000 0.000  |  | 113 3.455<br>208 3.351   | 0.467  | 0.595 1.477 0.225<br>0.712 1.011 0.184   | 2.478   | 3.293 0.000  | 0.000 0.000  | 0.000   |   | 0.000 0.230  | 0.257  | 0.838 0.443  | 4.42/ 3.64   |
| 155 5.050 16.568 -5.050 -16.568 4.740 0.069 80.030 1.456 1   | 3 3   | 3 1               |  | 0.965 0.965  |  | .000 1.04  |  |  | 0.000 0.000  |  | 328 3.775  | 0.527  | 0.662 1.322 0.215  | 2.323   | 3.237 0.000  | 0.000 0.000  | 0.000   |   | 0.000 0.252  | 0.313  | 0.885 0.472  | 4.723 3.91   |
| 156 5.100 16.732 -5.100 -16.732 5.206 0.090 84.330 1.729 4   | 3 3   | 3 2               |  | 0.975 0.975  |  | .000 1.03  |  |  | 1.966 1.713  | 4.345 2.1  |  | 0.506  | 0.622 1.641 0.247  | 2.642   | 3.227 75.148   | 0.000 0.000  |   |   | 0.000 0.282  | 0.329  | 0.969 0.516  | 5.163 4.34   |
| 157 5.150 16.896 -5.150 -16.896 5.069 0.090 63.940 1.775 4   |       | 3 2               |  | 0.984 0.984  |  | .000 1.03  |  |  | 1.949 1.667  |  | 203 4.086  | 0.394  | 0.489 2.124 0.294  |   | 3.252 77.106   | 0.000 0.000  |   |   | 0.000 0.272  | 0.250  | 0.931 0.500  | 5.003 4.15   |
| 158 5.200 17.060 -5.200 -17.060 4.610 0.089 75.220 1.931 4<br>159 5.250 17.224 -5.250 -17.224 4.625 0.068 79.230 1.470 1   |       | 3 2               |  | 0.993 0.993<br>1.003 1.003   |  | .000 1.02<br>.000 1.02   |  |  | 1.874 1.546<br>0.000 0.000   | 3.642 2.4<br>3.614 1.8   | 161 3.617<br>377 3.622   | 0.510<br>0.535   | 0.649 1.277 0.217<br>0.683 1.146 0.206   | 2.278   | 3.325 83.169<br>3.273 0.000  | 0.000 0.000<br>0.000 0.000   | 0.000   |   | 0.000 0.241<br>0.000 0.242   | 0.294  | 0.837 0.453<br>0.832 0.452   | 4.528 3.64<br>4.521 3.61   |
| 160 5.300 17.388 -5.300 -17.388 4.804 0.069 80.700 1.436 1   | 3 3   | 3 1               | 111.369  | 1.012 1.012  | 0.000 0  | .000 1.01  | 16 2.301   | 2.338  | 0.000 0.000  | 3.750 1.8  | 319 3.792  | 0.525  | 0.664 1.258 0.219  | 2.259   | 3.252 0.000  | 0.000 0.000  | 0.000   | 0.000   | 0.000 0.253  | 0.315  | 0.856 0.468  | 4.675 3.75   |
| 161 5.350 17.552 -5.350 -17.552 4.783 0.071 86.950 1.484 1   | 3 3   | 3 1               |  | 1.021 1.021<br>1.030 1.030   | 0.000 0  | .000 1.01  |  | 2.317  | 0.000 0.000  |  | 387 3.762  | 0.568  | 0.722 1.026 0.198  | 2.027   | 3.266 0.000  | 0.000 0.000  | 0.000   |   | 0.000 0.251  | 0.340  | 0.844 0.463  | 4.634 3.68   |
| 162 5.400 17.716 -5.400 -17.716 4.784 0.075 88.740 1.568 1<br>163 5.450 17.880 -5.450 -17.880 4.817 0.073 87.560 1.516 1   | 3 3   |                   |  |  | 0.000 0  | .000 1.00  |  |  | 0.000 0.000  |  | 998 3.754  | 0.570  | 0.738 0.955 0.193  | 1.956   | 3.282 0.000  | 0.000 0.000  |   |   |  |  |  |  |
| 163 5.450 17.880 -5.450 -17.880 4.817 0.073 87.560 1.516 1<br>164 5.500 18.044 -5.500 -18.044 4.923 0.071 93.310 1.442 1   | 3     | 3 0               |  |  | 0.000  | 000 + 00   |  |  |  | 2 627  | 2 2 770  | 0.575  |  |   | 2 276 0 000  | 0.000  |   |   | 0.000 0.250  | 0.347  | 0.837 0.461  | 4.615 3.64   |
| 165 5.550 18.208 -5.550 -18.208 4.944 0.073 95.080 1.477 1   | 3 3   | 3 0<br>3 1<br>3 0 | 111.369  | 1.030 1.030<br>1.039 1.039<br>1.048 1.048  |  | .000 1.00<br>.000 0.99   |  |  | 0.000 0.000<br>0.000 0.000   |  | 332 3.778<br>332 3.875   | 0.568  | 0.724 1.005 0.200<br>0.752 0.917 0.193   | 2.006   | 3.276 0.000<br>3.259 0.000   | 0.000 0.000<br>0.000 0.000   | 0.000   | 0.000   | 0.000 0.250<br>0.000 0.252<br>0.000 0.258  | 0.347<br>0.342<br>0.364  | 0.837 0.461<br>0.836 0.463<br>0.846 0.471  | 4.615 3.64<br>4.626 3.63<br>4.707 3.69   |
|  | 3 3   | 3 0               | 111.369<br>111.369<br>111.369  | 1.039 1.039<br>1.048 1.048<br>1.057 1.057  | 0.000 0<br>0.000 0   | .000 0.99  | 98 2.358<br>94 2.368   | 2.353  | 0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8   | 332 3.875<br>378 3.887   | 0.601  | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189  | 2.006<br>1.918<br>1.869   | 3.259 0.000<br>3.266 0.000   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.259  | 0.342<br>0.364<br>0.371  | 0.836 0.463<br>0.846 0.471<br>0.843 0.471  | 4.626 3.63<br>4.707 3.69<br>4.706 3.67   |
| 166 5.600 18.372 -5.600 -18.372 4.834 0.072 85.520 1.489 1   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067   | 0.000 0<br>0.000 0<br>0.000 0  | .000 0.99<br>.000 0.99   | 98 2.358<br>94 2.368<br>89 2.315   | 2.353<br>2.353<br>2.291  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 3.698 1.8<br>3.677 1.8<br>3.534 1.9  | 332 3.875<br>378 3.887<br>911 3.768  |  | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207   | 2.006<br>1.918<br>1.869<br>2.030  | 3.259 0.000<br>3.266 0.000<br>3.285 0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000  | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251   | 0.342<br>0.364<br>0.371<br>0.334   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458   | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53   |
| 167 5.650 18.537 -5.650 -18.537 4.741 0.077 93.080 1.624 1   | 3 3 3 | 3 0               | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057  | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99<br>.000 0.98  | 98 2.358<br>94 2.368<br>89 2.315<br>85 2.271   | 2.353<br>2.353<br>2.291<br>2.238   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.409 2.1   | 332 3.875<br>378 3.887<br>311 3.768<br>101 3.666   | 0.601  | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207<br>0.793 0.706 0.176  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707   | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.318 0.000   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.244  | 0.342<br>0.364<br>0.371<br>0.334<br>0.363  | 0.836  | 4.626 3.63<br>4.707 3.69<br>4.706 3.67   |
| 167 5.650 18.537 .5.650 .18.537 .4.741 0.077 93.080 1.624 1 168 5.700 18.701 -5.700 -18.701 5.023 0.074 95.060 1.473 1 169 5.750 18.865 -5.750 18.885 4.917 0.074 98.810 1.505 1   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067   | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99   | 98 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>77 2.355   | 2.353   2.353   2.291   2.238   2.361   2.301  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.409 2.1<br>3.632 1.8<br>3.496 1.9   | 332 3.875<br>378 3.887<br>311 3.768<br>101 3.666<br>379 3.939<br>336 3.823   | 0.601  | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207   | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676   | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.318 0.000<br>3.271 0.000<br>3.292 0.000   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.244<br>0.000 0.263<br>0.000 0.255   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386  | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458   | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53   |
| 167 5.550 18.537 -5.650 -18.537 4.741 0.077 93.080 1.624 1 168 5.700 18.701 -5.700 -18.701 5.023 0.074 95.060 1.473 1 169 5.750 18.865 -5.750 -18.865 4.917 0.074 98.10 1.505 1 170 5.800 19.029 -5.800 19.029 5.146 0.073 98.710 1.419 1  | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067   | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99<br>.000 0.98<br>.000 0.98<br>.000 0.98<br>.000 0.97   | 98 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>77 2.355<br>73 2.465   | 2.353<br>2.353<br>2.291<br>2.238<br>2.361<br>2.301<br>2.398  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.409 2.1<br>3.632 1.8<br>3.496 1.9<br>3.667 1.8  | 332 3.875<br>378 3.887<br>311 3.768<br>101 3.666<br>379 3.939<br>336 3.823<br>305 4.044  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599   | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207<br>0.793 0.706 0.176<br>0.754 0.895 0.197<br>0.752 0.872 0.198  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676   | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.318 0.000<br>3.271 0.000<br>3.292 0.000<br>3.259 0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.244<br>0.000 0.263<br>0.000 0.255<br>0.000 0.270   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480   | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53<br>4.475 3.40<br>4.722 3.63<br>4.602 3.49<br>4.797 3.66   |
| 166         5.650         18.537         -5.650         -18.537         4.741         0.077         93.080         1.624         1           68         5.700         18.701         -5.700         -18.791         5.023         0.074         95.080         1.473         1           168         5.700         18.865         -1.790         -18.895         4.917         0.074         98.810         1.305         1           170         5.800         19.029         -5.800         -19.029         5.146         0.073         98.710         1.419         1           77         5.80         19.133         -5.890         -19.193         4.890         0.086         10.023         1.324         1  | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.076 1.076<br>1.085 1.085<br>1.094 1.094  | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99<br>.000 0.98<br>.000 0.98<br>.000 0.98<br>.000 0.97<br>.000 0.97  | 98 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>77 2.355<br>73 2.465<br>89 2.388   | 2.353<br>2.353<br>2.291<br>2.238<br>2.361<br>2.301<br>2.398<br>2.314   | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.409 2.<br>3.632 1.8<br>3.496 1.9<br>3.667 1.8<br>3.485 1.7  | 332 3.875<br>378 3.887<br>311 3.768<br>301 3.666<br>379 3.939<br>336 3.823<br>305 4.044<br>703 3.874   | 0.601  | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207<br>0.793 0.706 0.176<br>0.754 0.895 0.197<br>0.807 0.675 0.176<br>0.762 0.872 0.198   | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676<br>1.873  | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.318 0.000<br>3.271 0.000<br>3.292 0.000<br>3.259 0.000<br>3.268 0.000   | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.261<br>0.000 0.263<br>0.000 0.255<br>0.000 0.255<br>0.000 0.255  | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480<br>0.840 0.890  | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53<br>4.475 3.40<br>4.722 3.63<br>4.602 3.49<br>4.797 3.66<br>4.629 3.48   |
| 167         7550         18.537         5.559         1.8237         4.741         0.077         33.080         1.824         1           489         5.700         18.701         5.700         1.8705         0.020         0.074         95.080         1.873         1         1         1.8705         0.020         0.074         95.080         1.873         1         1         1.970         0.074         95.080         1.873         0.074         95.080         1.873         0.074         95.080         1.873         0.074         95.080         1.873         0.074         95.080         1.873         0.074         95.080         1.873         0.074         95.080         1.873         1.874         0.074         95.080         1.873         1.874         0.074         95.080         1.874         1.974         1.974         1.974         1.974         0.074         98.810         1.505         1.774         1.974         1.974         1.419         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974         1.974   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.076 1.076<br>1.085 1.085<br>1.094 1.094  | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99<br>.000 0.98<br>.000 0.98<br>.000 0.98<br>.000 0.97   | 98 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>77 2.355<br>73 2.465<br>89 2.388   | 2.353<br>2.353<br>2.291<br>2.238<br>2.361<br>2.301<br>2.398<br>2.314<br>2.306  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.409 2.<br>3.632 1.8<br>3.496 1.9<br>3.667 1.8<br>3.485 1.7  | 332 3.875<br>378 3.887<br>311 3.768<br>101 3.666<br>379 3.939<br>336 3.823<br>305 4.044  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599   | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207<br>0.793 0.706 0.176<br>0.754 0.895 0.197<br>0.752 0.872 0.198  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676   | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.318 0.000<br>3.271 0.000<br>3.292 0.000<br>3.259 0.000  | 0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000<br>0.000 0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.244<br>0.000 0.263<br>0.000 0.255<br>0.000 0.270   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480   | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53<br>4.475 3.40<br>4.722 3.63<br>4.602 3.49<br>4.797 3.66   |
| 167         7550         18.537         5559         18.537         4.741         0.077         30.880         1824         1           88         5 700         18.701         5.700         18.701         5.700         0.074         58.680         1473         1           169         5 750         18.865         5.750         18.865         4.917         0.074         98.810         1505         1           177         5 880         18.932         5.850         19.192         5.140         0.073         98.710         1.419         1           177         5 880         18.763         5.850         19.193         4.886         0.066         100.320         1324         1           173         5 990         18.527         1.980         19.327         4.889         0.066         19.210         12.33         1           173         5 990         18.527         1.980         118.527         1.880         1.068         1.008         1.008         1         1.227         1         1         1.237         1         1.237         1         1.237         1         1         1.237         1         1         1.237         1         1.237   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.076 1.076<br>1.085 1.085<br>1.094 1.094  | 0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0<br>0.000 0   | .000 0.99<br>.000 0.99<br>.000 0.98<br>.000 0.98<br>.000 0.98<br>.000 0.97<br>.000 0.97  | 388 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>777 2.355<br>73 2.465<br>59 2.388<br>55 2.390<br>51 2.411<br>57 2.370   | 2.353   2.353   2.291   2.238   2.361   2.301   2.398   2.314   2.306   2.317   2.269  | 0.000 0.000<br>0.000 0.000   | 3.698 1.8<br>3.677 1.8<br>3.534 1.9<br>3.632 1.8<br>3.496 1.9<br>3.667 1.8<br>3.485 1.9<br>3.485 1.9<br>3.485 1.0  | 332 3.875<br>378 3.887<br>311 3.768<br>301 3.666<br>379 3.939<br>336 3.823<br>305 4.044<br>703 3.874   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599   | 0.724 1.005 0.200<br>0.752 0.917 0.193<br>0.764 0.868 0.189<br>0.709 1.029 0.207<br>0.793 0.706 0.176<br>0.754 0.895 0.197<br>0.807 0.675 0.176<br>0.762 0.872 0.198   | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.836<br>1.676<br>1.873<br>1.668<br>1.688<br>1.784   | 3.259 0.000<br>3.266 0.000<br>3.285 0.000<br>3.271 0.000<br>3.271 0.000<br>3.272 0.000<br>3.259 0.000<br>3.258 0.000<br>3.272 0.000<br>3.274 0.000   | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000 0.252<br>0.000 0.258<br>0.000 0.258<br>0.000 0.251<br>0.000 0.251<br>0.000 0.244<br>0.000 0.263<br>0.000 0.255<br>0.000 0.255<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385<br>0.385<br>0.387<br>0.397  | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480<br>0.840 0.890  | 4.626 3.63<br>4.707 3.69<br>4.706 3.67<br>4.582 3.53<br>4.475 3.53<br>4.472 3.63<br>4.602 3.49<br>4.797 3.66<br>4.629 3.48<br>4.621 3.49   |
| 187 5-550 18-537 18-537 18-559 18-537 4-741 0.077 93.080 1.624 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.076 1.076<br>1.085 1.085<br>1.094 1.094  | 0.000 0<br>0.000 0  | .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.96 .000 0.96 .000 0.96  | 58 2.358<br>94 2.368<br>89 2.315<br>85 2.271<br>81 2.406<br>77 2.355<br>77 2.465<br>559 2.388<br>55 2.390<br>51 2.411<br>57 2.370<br>53 2.424  | 2.353   2.353   2.291   2.238   2.361   2.301   2.398   2.314   2.306   2.317   2.269   2.311   2.311   2.269   2.311   2.306   2.317   2.269   2.311   2.306   2.306  | 0.000 0.000<br>0.000 0.000  | 3.698 1.3 3.677 1.8 3.534 1.9 3.534 1.9 3.632 1.8 3.632 1.8 3.496 1.9 3.667 1.8 3.485 1.1 3.451 1.1 3.454 1.8 3.444 1.8  | 332 3.875<br>378 3.887<br>3911 3.768<br>1011 3.666<br>379 3.939<br>136 3.823<br>305 4.044<br>1703 3.874<br>1706 3.868<br>1340 3.903<br>3.809<br>1510 3.913   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599   | 0.782 0.917 0.193 0.785 0.785 0.917 0.193 0.785 0.786 0.188 0.188 0.789 1.029 0.207 0.784 0.895 0.197 0.193 0.785 0.785 0.785 0.197 0.782 0.872 0.198 0.891 0.687 0.783 0.181 0.897 0.783 0.181 0.887 0.181 0.887 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.173 0.885 0.173 0.885 0.173 0.285 0.173 0.794  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676<br>1.873<br>1.668<br>1.688<br>1.784<br>1.586<br>1.702   | 3.259 0.000 3.266 0.000 3.285 0.000 3.281 0.000 3.271 0.000 3.271 0.000 3.259 0.000 3.259 0.000 3.272 0.000 3.272 0.000 3.272 0.000 3.264 0.000 3.268 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000 0.252<br>0.000 0.258<br>0.000 0.258<br>0.000 0.251<br>0.000 0.244<br>0.000 0.243<br>0.000 0.255<br>0.000 0.255<br>0.000 0.270<br>0.000 0.255<br>0.000 0.270<br>0.000 0.250<br>0.000 0.250   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385<br>0.392<br>0.387<br>0.377<br>0.393   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480<br>0.809 0.463<br>0.803 0.461<br>0.804 0.453  | 4.626 3.63<br>4.707 3.59<br>4.706 3.70<br>4.706 3.53<br>4.475 3.40<br>4.722 3.63<br>4.475 3.40<br>4.797 3.66<br>4.629 3.48<br>4.612 3.45<br>4.612 3.45   |
| 167         5550         18.537         5559         18.537         4.741         0.077         30.880         1824         1           88         5 700         18.701         5.700         18.701         5.700         0.074         58.600         1.873         1         0.074         58.600         1.873         1         1.900         1.873         1.900         1.885         0.074         58.600         1.873         1.871         0.002         0.074         58.600         1.873         1.871         0.002   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039 1.039 1.048 1.048 1.048 1.048 1.048 1.048 1.057 1.057 1.057 1.057 1.057 1.076  | 0.000 0<br>0.000 0  | .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.95 .000 0.95 .000 0.95 .000 0.95  | 58 2.358<br>94 2.368<br>99 2.315<br>89 2.315<br>81 2.406<br>77 2.355<br>73 2.465<br>92 2.388<br>95 2.390<br>91 2.411<br>95 2.370<br>95 2.381<br>95 2.381<br>95 2.390<br>95 2.381<br>96 2.381<br>97 2.370<br>98 2.381<br>98 2.381<br>99 2.381<br>98 2.3   | 2.353   2.353   2.291   2.238   2.361   2.301   2.398   2.314   2.306   2.317   2.269   2.311   2.314   2.311   2.314   2.314   2.311   2.314  | 0.000  | 3.698 1.3 3.677 1.8 3.677 1.8 3.534 1.9 3.534 1.9 3.409 2. 3.632 1.3 3.496 1.3 3.667 1.3 3.485 1.3 3.485 1.3 3.451 1.7 3.454 1.6 3.344 1.6 3.344 1.6   | 332 3.875<br>378 3.887<br>1911 3.768<br>1911 3.768<br>1911 3.666<br>379 3.939<br>1936 3.823<br>1905 4.044<br>1906 3.888<br>1907 3.893<br>1908 3.993<br>1908 3.99   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614  | 0.724 1.905 2.200 1.724 1.905 1.725  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676<br>1.873<br>1.668<br>1.688<br>1.784<br>1.586<br>1.702   | 3.259 0.000 3.266 0.000 3.268 0.000 3.318 0.000 3.271 0.000 3.272 0.000 3.268 0.000 3.272 0.000 3.272 0.000 3.274 0.000 3.275 0.000 3.276 0.000 3.276 0.000 3.276 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.251<br>0.000 0.283<br>0.000 0.283<br>0.000 0.250<br>0.000 0.250<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258<br>0.000 0.258   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.385<br>0.385<br>0.392<br>0.387<br>0.377<br>0.393<br>0.393  | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.843 0.471<br>0.843 0.478<br>0.796 0.448<br>0.796 0.448<br>0.835 0.472<br>0.841 0.480<br>0.841 0.480<br>0.803 0.461<br>0.803 0.461<br>0.803 0.465<br>0.804 0.405<br>0.804 0.405<br>0.805 0.454<br>0.806 0.455<br>0.796 0.455   | 4.626 3.63<br>4.707 3.695<br>4.706 3.67<br>4.582 3.53<br>4.475 3.40<br>4.727 3.63<br>4.602 3.49<br>4.797 3.63<br>4.612 3.49<br>4.612 3.49<br>4.612 3.45<br>4.612 3.45<br>4.612 3.45<br>4.612 3.45<br>4.612 3.45<br>4.612 3.45  |
| 187 5-550 18-537 18-537 18-559 18-537 4-741 0.077 93.080 1.624 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369   | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.076 1.076<br>1.085 1.085<br>1.094 1.094  | 0.000 0  | .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.96 .000 0.96 .000 0.96  | 38 2.358<br>34 2.368<br>2.315<br>35 2.271<br>31 2.406<br>2.355<br>37 2.465<br>39 2.388<br>35 2.390<br>2.387<br>35 2.421<br>37 2.370<br>33 2.424<br>34 2.411<br>35 2.370<br>36 2.424<br>36 2.436<br>37 2.424<br>38 2.424<br>38 2.424<br>38 2.424<br>38 2.424<br>38 2.424<br>38 2.424<br>48 2.436<br>48 2.   | 2.353   2.353   2.291   2.238   2.361   2.301   2.398   2.317   2.269   2.311   2.314   2.314   2.397   2.397  | 0.000 0.000<br>0.000 0.000  | 3.698 1.3 3.677 1.8 3.677 1.8 3.534 1.9 3.409 2. 3.632 1.8 3.496 1.9 3.485 1.0 3.485 1.1 3.445 1.1 3.454 1.8 3.344 1.8 3.344 1.8 3.344 1.8   | 332 3.875<br>378 3.887<br>3911 3.768<br>1011 3.666<br>379 3.939<br>136 3.823<br>305 4.044<br>1703 3.874<br>1706 3.868<br>1340 3.903<br>3.809<br>1510 3.913   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599   | 0.782 0.917 0.193 0.785 0.785 0.917 0.193 0.785 0.786 0.188 0.188 0.789 1.029 0.207 0.784 0.895 0.197 0.193 0.785 0.785 0.785 0.197 0.782 0.872 0.198 0.891 0.687 0.783 0.181 0.897 0.783 0.181 0.887 0.181 0.887 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.183 0.885 0.885 0.173 0.885 0.173 0.885 0.173 0.285 0.173 0.794  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676<br>1.873<br>1.668<br>1.688<br>1.784<br>1.586<br>1.702   | 3.259 0.000 3.266 0.000 3.285 0.000 3.281 0.000 3.271 0.000 3.271 0.000 3.259 0.000 3.259 0.000 3.272 0.000 3.272 0.000 3.272 0.000 3.264 0.000 3.268 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000 0.252<br>0.000 0.258<br>0.000 0.258<br>0.000 0.251<br>0.000 0.244<br>0.000 0.243<br>0.000 0.255<br>0.000 0.255<br>0.000 0.270<br>0.000 0.255<br>0.000 0.270<br>0.000 0.250<br>0.000 0.250   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385<br>0.392<br>0.387<br>0.377<br>0.393   | 0.836 0.463<br>0.846 0.471<br>0.843 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.841 0.480<br>0.809 0.463<br>0.803 0.461<br>0.804 0.453  | 4.626 3.63<br>4.707 3.59<br>4.706 3.70<br>4.706 3.53<br>4.475 3.40<br>4.722 3.63<br>4.475 3.40<br>4.797 3.66<br>4.629 3.48<br>4.612 3.45<br>4.612 3.45   |
| 187   1870   18.537   18.550   18.537   4.741   0.077   93.880   1.824   1.825   1.8   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369                                  | 1.039 1.039<br>1.048 1.048<br>1.048 1.048<br>1.057 1.057 1.057<br>1.057 1.057 1.057<br>1.056 1.076<br>1.085 1.085<br>1.084 1.094<br>1.103 1.103<br>1.112 1.112<br>1.121 1.121<br>1.131 1.131<br>1.140 1.140<br>1.149 1.149<br>1.149 1.149<br>1.149 1.149   | 0.000 0<br>0.000 0<br>0.0 | .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96  | 98 2358<br>94 2368<br>999 2315<br>899 2315<br>85 2271<br>81 2406<br>72 355<br>73 2465<br>999 2388<br>52 390<br>51 2411<br>57 2370<br>57 2424<br>50 2436<br>50 | 2.353   2.353   2.291   2.238   2.2361   2.301   2.392   2.314   2.306   2.317   2.253   2.314   2.314   2.397   2.314   2.397   2.432   2.362   2.362   2.362   | 0.000  | 3.698 1.3 3.677 1.3 3.677 1.3 3.677 1.3 3.534 1.3 3.499 2.3 3.632 1.3 3.496 1.3 3.496 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.497 1.3 3.583 1.4 3.583 1.4 3.583 1.4  | 332 3.875<br>378 3.887<br>3.887<br>3.97<br>3.666<br>3.79 3.939<br>3.939<br>3.939<br>3.939<br>3.874<br>703 3.874<br>703 3.874<br>704<br>705 3.858<br>3.805<br>4.044<br>703 3.874<br>705 3.858<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807<br>3.807 | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.664   | 0.794 1.005 0.200 0.795  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.896<br>1.676<br>1.873<br>1.668<br>1.688<br>1.784<br>1.586<br>1.702<br>1.546<br>1.702<br>1.873  | 3.259 0.000 3.266 0.000 3.285 0.000 3.285 0.000 3.281 0.000 3.291 0.000 3.292 0.000 3.293 0.000 3.293 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000 0.282<br>0.000 0.289<br>0.000 0.289<br>0.000 0.259<br>0.000 0.244<br>0.000 0.285<br>0.000 0.285  | 0.342<br>0.364<br>0.371<br>0.363<br>0.371<br>0.363<br>0.371<br>0.385<br>0.382<br>0.387<br>0.377<br>0.387<br>0.392<br>0.387<br>0.393<br>0.393<br>0.393  | 0.836 0.453<br>0.846 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.480<br>0.835 0.472<br>0.811 0.480<br>0.841 0.480<br>0.841 0.480<br>0.809 0.463<br>0.803 0.461<br>0.804 0.480<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454  | 4 624 3.63<br>4.707 3.69<br>4.706 3.53<br>4.707 3.69<br>4.708 3.53<br>4.702 3.63<br>4.702 3.63<br>4.702 3.63<br>4.602 3.49<br>4.602 3.49<br>4.602 3.49<br>4.602 3.49<br>4.602 3.49<br>4.602 3.40<br>4.602 3.402 3.40<br>4.602 3.402 3.40<br>4            |
| 167         5550         18.537         5.590         18.537         4.741         0.077         30.880         1824         1           489         5700         18.701         5.700         18.701         0.000         0.074         58.680         1473         1           169         5750         18.865         5.750         18.865         4.917         0.073         98.810         1.505         1           179         5800         18.933         5.850         19.1929         5.140         0.073         98.710         4.49         1           179         5800         38.75         5.800         19.137         4.889         0.068         100.320         1.324         1           173         5800         38.57         5.800         19.327         4.889         0.068         92.10         1.323         1           173         5800         38.57         5.800         19.327         4.889         0.068         92.10         1.323         1           173         6.000         38.585         6.000         19.327         4.890         0.068         92.10         1.222         1           776         6.000         38.585         6   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369                                  | 1.039 1.039<br>1.048 1.048<br>1.048 1.048<br>1.057 1.057<br>1.057 1.057<br>1.057 1.057<br>1.058 1.058<br>1.038 1.034<br>1.103 1.103<br>1.112 1.112<br>1.113 1.131<br>1.140 1.140<br>1.149 1.149<br>1.158 1.158<br>1.158 1.158  | 0.000 0<br>0.000 0<br>0.0 | .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.98 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.95 .000 0.95 .000 0.95  | 58 2.358<br>94 2.368<br>95 2.315<br>95 2.271<br>2.406<br>97 2.355<br>97 2.355<br>97 2.385<br>99 2.388<br>99 2.388<br>99 2.388<br>90 2.388  | 2.353   2.353   2.353   2.291   2.298   2.361   2.305   2.314   2.306   2.311   2.269   2.311   2.314   2.397   2.432   2.362   2.413   2.362   2.413   2.362   2.413   2.362   2.413   2.362   2.413   2.362   2.413   2.362   2.413   2.363   2.413   2.413   2.363   2.413  | 0.000  | 3.698 1.8 3.677 1.8 3.677 1.8 3.534 1.5 3.496 1.8 3.496 1.8 3.495 1.1 3.485 1.1 3.451 1.1 3.494 1.8 3.494 1.8 3.344 1.8 3.344 1.8 3.344 1.8 3.343 1.8 3.534 1.3 3.534 1.3 3.534 1.3 3.534 1.3 3.534 1.3 3.534 1.3 3.534 1.3  | 332 3.875 378 3.887 3.887 3.887 3.897 3.768 101 3.666 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3371 3.973 3.974 3.973 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.975  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.626<br>0.614  | 0.754 1.005 0.200 0.750  | 2.006 1.918 1.869 1.918 1.869 1.707 1.886 1.676 1.873 1.668 1.586 1.784 1.586 1.794 1.586 1.751 1.867   | 3.289 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.281 0.000 3.291 0.000 3.292 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.281 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.251<br>0.000 0.251<br>0.000 0.244<br>0.000 0.253<br>0.000 0.253<br>0.000 0.255<br>0.000 0.255  | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385<br>0.385<br>0.382<br>0.387<br>0.377<br>0.393<br>0.393<br>0.399<br>0.399   | 0.836 0.463<br>0.846 0.471<br>0.818 0.453<br>0.796 0.448<br>0.796 0.448<br>0.835 0.472<br>0.811 0.460<br>0.835 0.472<br>0.811 0.460<br>0.800 0.463<br>0.800 0.463<br>0.800 0.463<br>0.805 0.463<br>0.806 0.463<br>0.807 0.463<br>0.808 0.463   | 4 626 3.63<br>4.707 3.69<br>4.708 3.67<br>4.882 3.53<br>4.475 3.63<br>4.722 3.63<br>4.622 3.63<br>4.622 3.45<br>4.623 3.45<br>4.624 3.45 |
| 187   5550   18.537   5.559   18.537   4.741   0.077   39.880   1.824   1.885   5.700   1.870   5.700   18.870   5.203   0.074   59.580   1.824   1.885   5.700   1.8851   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   5.750   18.895   6.750   0.074   59.580   1.824   1.700   5.750   1.895   1.902   5.740   0.073   58.710   1.7419   1.770   5.800   13.937   5.800   1.9029   5.740   0.073   58.710   1.7419   1.7419   1.770   5.750   1. | 3 3 3 | 3 0 3 1           | 111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369<br>111369 | 1.039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.067 1.067<br>1.067 1.067<br>1.085 1.085<br>1.034 1.03<br>1.103 1.103<br>1.112 1.112<br>1.121 1.121<br>1.121 1.112<br>1.140 1.140<br>1.140 1.140<br>1.158 1.158<br>1.158 1.158<br>1.167 1.167<br>1.176 1.185   | 0.000 0  | .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.99  | 38 2.358<br>394 2.368<br>395 2.315<br>385 2.271<br>381 2.405<br>77 2.355<br>73 2.465<br>599 2.388<br>555 2.390<br>515 2.411<br>57 2.370<br>55 2.424<br>55 2.424<br>55 2.436<br>48 2.534<br>48 2.534<br>48 2.534<br>48 2.534<br>49 2.534<br>40 2.534<br>41 2.534<br>42 2.581<br>39 2.517  | 2.353<br>2.353<br>2.291<br>2.291<br>2.361<br>2.301<br>2.301<br>2.305<br>2.314<br>2.306<br>2.317<br>2.269<br>2.311<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.316<br>2.314<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316  | 0.000  | 3.698 1.3 3.677 1.3 3.677 1.3 3.534 1.3 3.409 2. 3.632 1.3 3.496 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.495 1.3 3.494 1.3 3.394 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3 3.593 1.3   | 332 3.875 378 3.887 3111 3.768 1011 3.656 101 3.656 1013 3.656 3.823 305 4.044 30703 3.874 305 4.040 3.888 3.893 3150 3.893 3157 3.893 3.809 3.8   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.664   | 0.794 1.005 0.200 0.795 0.795 0.795 0.795 0.895 0.195 0.795  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.836<br>1.676<br>1.873<br>1.668<br>1.688<br>1.688<br>1.702<br>1.702<br>1.702<br>1.756<br>1.756<br>1.756<br>1.756  | 3.259 0.000 3.266 0.000 3.285 0.000 3.281 0.000 3.292 0.000 3.292 0.000 3.292 0.000 3.293 0.000 3.293 0.000 3.294 0.000 3.294 0.000 3.295 0.000 3.295 0.000 3.295 0.000 3.296 0.000 3.297 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000   | 0.000 0.282 0.000 0.283 0.000 0.283 0.000 0.281 0.000 0.281 0.000 0.281 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.285 0.000 0.280 0.000 0.281 0.000 0.281 0.000 0.282  | 0.342<br>0.384<br>0.371<br>0.334<br>0.363<br>0.371<br>0.385<br>0.385<br>0.392<br>0.387<br>0.392<br>0.387<br>0.393<br>0.393<br>0.399<br>0.393   | 0.836 0.453<br>0.846 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.480<br>0.835 0.472<br>0.811 0.480<br>0.841 0.480<br>0.841 0.480<br>0.809 0.463<br>0.803 0.461<br>0.804 0.480<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454  | 4,624 3,63<br>4,707 3,68<br>4,706 3,53<br>4,707 3,68<br>4,706 3,53<br>4,707 3,68<br>4,707 3,7  |
| 187 5550 18.537 5.559 18.537 4.741 0.077 39.880 18.54 1 189 5.790 18.701 5.700 18.701 5.780 0.074 59.580 18.24 1 189 5.790 18.895 5.750 18.895 4.917 0.074 98.810 1.505 1 170 5.800 18.702 6.800 19.1029 5.140 0.073 98.710 1.505 1 171 5.800 18.702 6.800 19.1029 5.140 0.073 98.710 1.419 1 171 5.800 18.702 6.800 19.1029 5.140 0.073 98.710 1.419 1 172 5.900 18.357 5.500 19.1029 5.140 0.008 10.073 98.710 1.419 1 173 5.900 18.357 5.500 19.1029 5.140 0.068 99.210 1.222 1 174 5.900 18.357 5.500 19.103 0.068 99.210 1.223 1 175 6.100 20.013 18.505 0.000 19.501 0.000 19.500 1.223 1 176 6.000 18.505 6.000 19.505 0.000 0.068 19.210 1.223 1 177 6.100 20.013 6.100 2.000 19.504 0.000 0.061 10.000 1.223 1 177 6.100 20.013 6.100 2.000 19.504 0.000 0.000 10.000 10.230 1.245 1 177 6.100 20.013 6.100 2.000 19.504 0.000 0.000 0.000 10.000 1.223 1 177 6.200 20.013 6.100 2.000 19.504 0.000 0.000 0.000 10.000 10.230 1.245 1 177 6.200 20.013 6.100 2.000 19.504 0.000 0.000 0.000 0.000 10.000 1.223 1 177 6.200 20.013 6.000 2.000 0.000 0.000 0.000 0.000 0.000 10.000 1.230 1 177 6.200 20.013 6.000 2.0000 0.0000 0.0000 0.000 0.000 0.000 10.000 1.230 1 177 6.200 20.013 6.000 2.0000 0.0000 0.0000 0.0000 0.000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.00000 0.0000 0.0000 0.0000 0.00000 0.00000 0.0000 0.0000 0.00000 0.000000  | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039<br>1.048 1.048<br>1.048 1.048<br>1.057 1.057 1.057<br>1.057 1.057 1.057<br>1.056 1.076<br>1.085 1.085<br>1.084 1.094<br>1.103 1.103<br>1.112 1.112<br>1.121 1.121<br>1.131 1.131<br>1.140 1.140<br>1.149 1.149<br>1.149 1.149<br>1.158 1.158   | 0.000 0<br>0.000 0<br>0.0 | .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.98 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.96 .000 0.95 .000 0.95 .000 0.95  | 98 2.358<br>99 2.368<br>99 2.375<br>99 2.315<br>85 2.271<br>88 2.271<br>88 2.271<br>2.355<br>77 2.355<br>77 2.355<br>73 2.465<br>99 2.388<br>95 2.380<br>151 2.411<br>157 2.370<br>2.424<br>2.534<br>150 2.534<br>150 2.534<br>15   | 2.353<br>2.353<br>2.353<br>2.291<br>2.238<br>2.361<br>2.398<br>2.314<br>2.396<br>2.317<br>2.269<br>2.317<br>2.269<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.315<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.315<br>2.314<br>2.316<br>2.316<br>2.316<br>2.317<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 | 3.698 1.3 3.677 1.3 3.677 1.3 3.677 1.3 3.534 1.3 3.499 2.2 3.632 1.3 3.496 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.485 1.3 3.511 1.3 3.512 1.3 3.534 1.3 3.535  | 332 3.875 378 3.887 3.887 3.887 3.897 3.768 101 3.666 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3379 3.939 3371 3.973 3.974 3.973 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.973 3.974 3.975  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.664   | 0.754 1.005 0.200 0.750  | 2 006 1.918 1.859 2 030 1.707 1.896 1.676 1.873 1.688 1.688 1.784 1.784 1.791 1.887 1.702 1.646 1.701 1.887 1.756 1.881   | 3.289 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.281 0.000 3.291 0.000 3.292 0.000 3.293 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000   | 0.000   | 0000 0.252<br>0.000 0.258<br>0.000 0.259<br>0.000 0.259<br>0.000 0.259<br>0.000 0.251<br>0.000 0.253<br>0.000 0.253  | 0.342<br>0.364<br>0.371<br>0.331<br>0.363<br>0.363<br>0.385<br>0.385<br>0.385<br>0.387<br>0.377<br>0.393<br>0.393<br>0.399<br>0.399<br>0.399<br>0.399<br>0.393<br>0.406<br>0.397<br>0.393<br>0.406<br>0.397  | 0.836 0.453<br>0.846 0.471<br>0.818 0.458<br>0.796 0.448<br>0.835 0.472<br>0.811 0.480<br>0.835 0.472<br>0.811 0.480<br>0.841 0.480<br>0.841 0.480<br>0.809 0.463<br>0.803 0.461<br>0.804 0.480<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454<br>0.785 0.454  | 4 626 3.63<br>4.707 3.69<br>4.708 3.67<br>4.882 3.53<br>4.475 3.63<br>4.722 3.63<br>4.622 3.63<br>4.622 3.45<br>4.623 3.45<br>4.624 3.45 |
| 187   18.597   18.597   18.597   18.597   18.791   18.7   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039<br>1.048 1.048<br>1.048 1.048<br>1.057 1.057<br>1.057 1.057<br>1.057 1.057<br>1.058 1.085<br>1.085 1.085<br>1.085 1.103<br>1.112 1.112<br>1.121 1.112<br>1.121 1.121<br>1.131 1.131<br>1.140 1.140<br>1.149 1.149<br>1.158 1.158<br>1.156 1.156<br>1.167 1.176<br>1.176 1.176  | 0.000 0  | .000 0.99 .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.99  | 88 2.358<br>99 2.315<br>99 2.315<br>85 2.271<br>81 2.405<br>97 2.355<br>99 2.388<br>99 2.388<br>90 2.3   | 2.353<br>2.353<br>2.253<br>2.291<br>2.238<br>2.361<br>2.398<br>2.314<br>2.398<br>2.314<br>2.317<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.318<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317  | 0.0000 0. | 3.698 13.3 3.697 12.3 3.697 12.3 3.697 12.3 3.697 12.3 3.692 2.3 3.692 2.3 3.692 2.3 3.692 13.3 3.691 13.3 3.691 13.3 3.691 13.3 3.691 13.3 3.691 13.3 3.593 13.3 3.5 | 332 3.875 3377 3783 3887 3911 3.768 3.887 3911 3.666 3.696 3.823 3.823 3.823 3.824 3.823 3.824 3.823 3.824 4.213 3.913 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.825 3   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.664   | 0.794 1.005 0.200 0.790 0.792 0.817 0.193 0.794 0.888 0.189 0.297 0.799 1.005 0.200 0.799 1.005 0.794 0.886 0.197 0.895 0.794 0.895 0.197 0.807 0.657 0.794 0.895 0.197 0.807 0.657 0.198 0.807 0.807 0.655 0.179 0.807  | 2.006 1.918 1.859 2.030 1.707 1.896 1.676 1.873 1.668 1.784 1.586 1.792 1.646 1.751 1.897 1.786 1.893 1.596 1.891 1.791 1.897 1.897 1.796 1.993   | 3 259 0.000 3 285 0.000 3 285 0.000 3 285 0.000 3 275 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 278 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0000 0.252 0.0000 0.253 0.0000 0.251 0.0000 0.251 0.0000 0.251 0.0000 0.255   | 0.342<br>0.364<br>0.371<br>0.331<br>0.363<br>0.363<br>0.371<br>0.385<br>0.385<br>0.382<br>0.387<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393  | 0.836 0.463 0.846 0.471 0.816 0.472 0.816 0.473 0.816 0.483 0.474 0.818 0.488 0.835 0.472 0.811 0.480 0.830 0.481 0.830 0.481 0.831 0.480  | 4.028 3.63<br>4.076 3.63<br>4.707 3.64<br>4.708 3.67<br>4.708 3.67<br>4.475 3.40<br>4.652 3.49<br>4.652 3.49<br>4.652 3.49<br>4.652 3.48<br>4.653 3.48<br>4.653 3.48<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.655 3.45 |
| 67         5550         18.537         5.590         18.237         4.441         0.077         39.880         1.824         1           68         5.790         18.895         5.750         18.705         5.000         0.074         98.680         1.824         1           77         5.800         18.902         5.800         18.903         1.800         1.910  | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1,038 1,038 1,039 1,039 1,039 1,039 1,039 1,039 1,037 1,057 1,057 1,057 1,057 1,057 1,057 1,058 1,058 1,058 1,058 1,058 1,058 1,058 1,058 1,058 1,058 1,158  | 0.000 0 0 0.000 0 0 0.000 0 0 0 0 0 0 0  | .000 0.99  | 88 2.588 38 2.588 34 2.388 39 2.315 35 2.791 37 2.405 37 2.405 37 2.405 37 2.405 37 2.405 37 2.405 37 2.405 37 2.405 38 2.501 39 2.501 30  | 2.353<br>2.353<br>2.353<br>2.251<br>2.231<br>2.361<br>2.398<br>2.314<br>2.306<br>2.317<br>2.314<br>2.306<br>2.317<br>2.314<br>2.314<br>2.314<br>2.314<br>2.311<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344<br>2.344  | 0.0000 0. | 3.698 1.1. 3.698 1.1. 3.677 1.2. 3.677 1.2. 3.534 1.3. 3.409 2.2. 3.409 2.2. 3.409 1.2. 3.409 1.3. 3.405 1.3. 3.405 1.3. 3.405 1.3. 3.407 1.3. 3.394 1.3. 3.593 1.3.   | 3322 3.875 378 3.887 3778 3.887 3718 3.887 3711 3.768 3.768 3.1011 3.666 3.769 3.939 3.823 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827 3.823 3.827   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.626<br>0.614<br>0.592<br>0.575<br>0.604   | 0.724 1.005 0.200 0.750  | 2 006 1.918 1.859 2.030 1.707 1.839 1.676 1.873 1.688 1.784 1.785 1.688 1.784 1.751 1.886 1.751 1.887 1.751 1.887 1.751 1.897 1.752 1.648 1.533   | 3.289 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.281 0.000 3.282 0.000 3.282 0.000 3.283 0.000 3.283 0.000 3.284 0.000 3.285 0.000  | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0000 0.252 0.000 0.258 0.000 0.258 0.000 0.258 0.000 0.258 0.000 0.258 0.000 0.253   | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.371<br>0.386<br>0.385<br>0.385<br>0.385<br>0.385<br>0.392<br>0.392<br>0.393<br>0.399<br>0.399<br>0.399<br>0.406<br>0.400<br>0.397<br>0.399<br>0.393<br>0.418<br>0.441<br>0.441  | 0.836 0.437 0.846 0.437 0.846 0.437 0.843 0.471 0.843 0.471 0.843 0.471 0.843 0.471 0.851 0.448 0.858 0.472 0.858 0.472 0.858 0.472 0.858 0.472 0.858 0.472 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488 0.858 0.488  | 4 (28 3 3 3 3 4 7 7 8 4 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7  |
| 187   18.597   18.597   18.597   18.597   18.791   18.7   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1039 1.039<br>1.048 1.048<br>1.057 1.057<br>1.057 1.057<br>1.067 1.067<br>1.085 1.085<br>1.034 1.034<br>1.103 1.103<br>1.103 1.103<br>1.112 1.112<br>1.121 1.121<br>1.121 1.121<br>1.131 1.131<br>1.140 1.140<br>1.158 1.158<br>1.158 1.158<br>1.158 1.158<br>1.167 1.167<br>1.176 1.196<br>1.185 1.185  | 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0 0 0.000 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0 0 0.000 0  | .000 0.99 .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.99  | 88 2.358 98 2.358 99 2.315 95 2.315 95 2.315 95 2.315 95 2.315 95 2.315 95 2.315 95 2.315 11 2.411 95 2.388 95 2.380 95 2.388 95 2.380 95 2.388 96 2.388 96 2.388 96 2.388 96 2.388 96 2.388 96 2.388 96 2.388 97 2.388 97 2.388 98 2.388   | 2.353<br>2.353<br>2.353<br>2.291<br>2.238<br>2.361<br>2.301<br>2.398<br>2.314<br>2.308<br>2.314<br>2.308<br>2.317<br>2.269<br>2.311<br>2.317<br>2.269<br>2.311<br>2.317<br>2.269<br>2.311<br>2.312<br>2.314<br>2.317<br>2.317<br>2.318<br>2.311<br>2.317<br>2.318<br>2.311<br>2.311<br>2.312<br>2.314<br>2.317<br>2.317<br>2.318<br>2.318<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.311<br>2.312<br>2.314<br>2.311<br>2.311<br>2.312<br>2.314<br>2.317<br>2.317<br>2.317<br>2.317<br>2.318<br>2.317<br>2.318<br>2.317<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318  | 0.0000 0. | 3.689 11. 3.687 12. 3.687 12. 3.687 12. 3.687 12. 3.498 12. 3.498 13. 3.498 13. 3.491 13. 3.491 13. 3.491 13. 3.582 13. 3.491 13. 3.583 13.  | 332 3.875 3377 3783 3887 3911 3.768 3.887 3911 3.666 3.696 3.823 3.823 3.823 3.824 3.823 3.824 3.823 3.824 4.213 3.913 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.824 4.213 3.825 3   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.626<br>0.614<br>0.592<br>0.575<br>0.604   | 0.794 1.005 0.200 0.790 0.792 0.817 0.193 0.794 0.888 0.189 0.297 0.799 1.005 0.200 0.799 1.005 0.794 0.886 0.197 0.895 0.794 0.895 0.197 0.807 0.657 0.794 0.895 0.197 0.807 0.657 0.198 0.807 0.807 0.655 0.179 0.807  | 2.006 1.918 1.859 2.030 1.707 1.896 1.676 1.873 1.668 1.784 1.586 1.792 1.646 1.751 1.897 1.786 1.893 1.596 1.891 1.791 1.897 1.897 1.796 1.993   | 3 259 0.000 3 285 0.000 3 285 0.000 3 285 0.000 3 275 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 277 0.000 3 278 0.000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0000 0.252 0.0000 0.253 0.0000 0.251 0.0000 0.251 0.0000 0.251 0.0000 0.255   | 0.342<br>0.364<br>0.371<br>0.331<br>0.363<br>0.363<br>0.371<br>0.385<br>0.385<br>0.382<br>0.387<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393  | 0.836 0.463 0.846 0.471 0.816 0.472 0.816 0.473 0.816 0.483 0.474 0.818 0.488 0.835 0.472 0.811 0.480 0.830 0.481 0.830 0.481 0.831 0.480  | 4.028 3.63<br>4.076 3.63<br>4.707 3.64<br>4.708 3.67<br>4.708 3.67<br>4.475 3.40<br>4.652 3.49<br>4.652 3.49<br>4.652 3.49<br>4.652 3.48<br>4.653 3.48<br>4.653 3.48<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.654 3.45<br>4.655 3.45 |
| 187   18.597   18.5   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037  | 0.000   0   0.000   0   0.000   0   0.000   0  | .000 0.99 .000 0.99 .000 0.99 .000 0.99 .000 0.99 .000 0.99 .000 0.99 .000 0.97 .000 0.99  | 88 2.588 38 2.588 31 2.388 32 2.315 35 2.2315 35 2.2315 37 2.465 39 2.385 39 2.385 39 2.385 39 2.385 39 2.388 39 2.388 39 2.388 39 2.388 30 2.431 31 2.411 31 2.501 32 2.611 31 2.619 32 2.687 31 2.619 31 2.619 31 2.619 31 2.619 31 2.619 31 2.619 31 2.619  | 2.353<br>2.353<br>2.353<br>2.281<br>2.281<br>2.361<br>2.301<br>2.308<br>2.314<br>2.306<br>2.317<br>2.308<br>2.311<br>2.314<br>2.397<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.432<br>2.440<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542<br>2.542  | 0.0000 0. | 3.698 1.1. 3.698 1.1. 3.677 1.2. 3.554 1.3. 3.594 1.3. 3.499 1.3. 3.491 1.3. 3.491 1.3. 3.592 1.3. 3.491 1.3. 3.592 1.3. 3.593 1.3. 3.594 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3. 3.593 1.3.  | 322 3.875<br>797 3.788<br>101 3.788<br>101 3.686<br>101 3.686<br>101 3.686<br>101 3.686<br>103 3.823<br>103 3.823<br>103 3.823<br>103 3.823<br>103 3.874<br>103 3.875<br>103 3.875   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.625<br>0.635<br>0.635<br>0.614<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0. | 0.7924 1.0055 0.2200 0.792 0.792 0.892 0.792 0.792 0.792 0.792 0.792 0.792 0.792 0.793 0.794 0.895 0.199 0.792 0.792 0.792 0.793 0.795 0.7 | 2 006 1.918 1.859 2.030 1.707 1.856 1.676 1.873 1.668 1.688 1.688 1.688 1.784 1.586 1.791 1.702 1.646 1.791 1.791 1.792 1.646 1.791 1.792 1.793 1.794 1.508   | 3.259 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.275 0.000 3.277 0.000 3.277 0.000 3.277 0.000 3.278 0.000  | 0.000 0.0 | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0000 0285 0000 0285 0000 0286 0000 0286 0000 0286 0000 0286 0000 0287 0000 0287 0000 0287 0000 0287 0000 0287 0000 0287 0000 0288 0000 0288 0000 0288 0000 0288 0000 0288 0000 0288  | 0.342<br>0.364<br>0.371<br>0.334<br>0.363<br>0.377<br>0.385<br>0.385<br>0.392<br>0.387<br>0.392<br>0.387<br>0.393<br>0.400<br>0.400<br>0.397<br>0.393<br>0.400<br>0.397<br>0.393<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.404<br>0.404<br>0.405<br>0.404<br>0.405<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.404<br>0.   | 0.835  | 4.028 3.63<br>4.076 3.63<br>4.706 3.67<br>4.706 3.67<br>4.706 3.67<br>4.705 3.67<br>4.475 3.40<br>4.622 3.49<br>4.622 3.49<br>4.623 3.48<br>4.623 3.48<br>4.624 3.49<br>4.624 3.49<br>4.625 3.48<br>4.624 3.49<br>4.625 3.48<br>4.624 3.49<br>4.625 3.48<br>4.626 3.49<br>4.627 3.49<br>4.628 3.50<br>4.628 3.50<br>4.628 3.50<br>4.628 3.50<br>4.628 3.50<br>5.60<br>5.60<br>5.60<br>5.60<br>5.60<br>5.60<br>5.60<br>5  |
| 185   5.550   18.537   5.550   18.537   4.741   0.077   39.880   1.624   1.855   1.857   1.8   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.038 1.039 1.039 1.034 1.039  | 0,000   0   0,000   0   0,000   0   0,000   0  | .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.99  | 88 2.388 88 2.388 81 2.388 81 2.388 819 2.315 81 2.406 81   | 2.353<br>2.353<br>2.353<br>2.353<br>2.291<br>2.381<br>2.391<br>2.391<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.316<br>2.316<br>2.316<br>2.316<br>2.317<br>2.317<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318  | 0 0000 0000 0000 0000 0000 0000 0000 0000  | 3.588 11.3.534 11.3.534 11.3.545 11.3.555 11.3.5 | \$22 875 877 8 388 778 8 389 778 8 389 778 8 389 778 8 389 789 8 382 3 82  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.625<br>0.635<br>0.635<br>0.614<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0. | 0.754 1.005 0.200 0.750  | 2.006 1.918 1.869 2.030 1.707 1.896 1.676 1.673 1.668 1.674 1.688 1.744 1.586 1.742 1.646 1.751 1.897 1.752 1.841 1.933 1.744 1.933 1.754 1.851 1.752 1.851 1.752 1.851 1.753   | 3299 0000 0000 0000 0000 0000 0000 0000  | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0.000 0.252 0.000  | 0.342 0.384 0.397 0.397 0.333 0.363 0.377 0.385 0.385 0.387 0.377 0.385 0.389 0.389 0.393 0.393 0.393 0.393 0.406 0.400 0.400 0.401 0.401 0.401 0.404 0.451 0.444 0.451 0.4451 0.4454 0.455  | 0.835  | 4 6 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7  |
| 187   18.59   18.537   5.550   18.537   4.741   0.077   39.880   1.824   1.825   1.8   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.098 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.099  | 0,000   0   0,000   0   0,000   0   0,000   0  | .000 0.99  | 88 2.388 88 2.388 89 2.315 89 2.315 81 2.388 89 2.315 81 2.405 72 2.405 72 2.405 72 2.405 73 2.405 74 2.388 85 2.390 86 2.490 86 2.490 87 2.587 87 2.587 87 2.587 88 2.490 88 2.400 88 2.400 88 2.400 88  | 2.353<br>2.253<br>2.291<br>2.238<br>2.238<br>2.301<br>2.301<br>2.301<br>2.314<br>2.314<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.314<br>2.317<br>2.317<br>2.314<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317  | 1 0000 0000 0000 0000 0000 0000 0000 0   | 3.588 1.1 3.531 1.3 3.532 1.1 3.533 1.3 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.597 1.1 3.597 1.1 3.597 1.1 3.597 1.1 3.597 1.1  | \$22 8.75   \$2.   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.625<br>0.635<br>0.635<br>0.614<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0. | 0.792  | 2.006 1.918 1.869 2.030 1.707 1.886 1.707 1.886 1.764 1.873 1.668 1.784 1.784 1.784 1.784 1.785 1.702 1.608 1.775 1.811 1.933   | 3.299 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.285 0.000 3.281 0.000 3.291 0.000 3.292 0.000 3.292 0.000 3.292 0.000 3.293 0.000 3.293 0.000 3.293 0.000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.0000 3.295 0.00000 3.295 0.00000 3.295 0.00000000000000000000000000000000000  | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0.000 0.252 0.000  | 0.342 0.384 0.387 0.397 0.333 0.371 0.338 0.371 0.385 0.385 0.385 0.387 0.377 0.393 0.389 0.399 0.399 0.400 0.397 0.399 0.401 0.400 0.400 0.404 0.405 0.405 0.405 0.406  | 0.835  | 4 6 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  |
| 185   1859   18537   18559   18537   18595   18537   18595   18537   18595     | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.038 1.039 1.039 1.034 1.039  | 0,000   0   0,000   0   0,000   0   0,000   0  | .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.97 .000 0.98 .000 0.99  | 88 2.388 88 2.388 81 2.388 81 2.388 819 2.315 81 2.406 81   | 2.353<br>2.353<br>2.353<br>2.353<br>2.291<br>2.381<br>2.391<br>2.391<br>2.391<br>2.314<br>2.314<br>2.205<br>2.317<br>2.269<br>2.317<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.315<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.315<br>2.316<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.316<br>2.317<br>2.317<br>2.317<br>2.318<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318  | 0 0000 0000 0000 0000 0000 0000 0000 0000  | 3.588 1.1 3.531 1.3 3.532 1.1 3.533 1.3 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.597 1.1 3.597 1.1 3.597 1.1 3.597 1.1 3.597 1.1  | \$22 875 877 8 388 778 8 389 778 8 389 778 8 389 778 8 389 789 8 382 3 82  | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.625<br>0.635<br>0.635<br>0.614<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0. | 0.724 1.005 0.200 0.700  | 2.006 1.918 1.869 2.030 1.707 1.896 1.676 1.673 1.668 1.674 1.688 1.744 1.586 1.742 1.646 1.751 1.897 1.752 1.841 1.933 1.744 1.933 1.754 1.851 1.752 1.851 1.752 1.851 1.753   | 3299 0000 0000 0000 0000 0000 0000 0000  | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0.000 0.252 0.000 0.252 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.255  | 0.342 0.384 0.397 0.397 0.333 0.363 0.377 0.385 0.385 0.387 0.377 0.385 0.389 0.389 0.393 0.393 0.393 0.393 0.406 0.400 0.400 0.401 0.401 0.401 0.404 0.451 0.444 0.451 0.4451 0.4454 0.455  | 0.835  | 4 6 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7  |
| 187   18.59   18.537   18.508   18.537   18.508   18.534   18.508   18.504   18.508   18.50   | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.098 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.099 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.097 1.099  | 1000    | .000 0.99 .000 0.99 .000 0.99 .000 0.98 .000 0.98 .000 0.98 .000 0.98 .000 0.99  | 88 2.388 88 2.388 89 2.315 89 2.315 85 2.271 81 2.406 77 2.385 85 2.271 77 2.385 85 2.271 77 2.385 85 2.271 78 2.385 85 2.380  | 2.353<br>2.253<br>2.291<br>2.238<br>2.238<br>2.301<br>2.301<br>2.301<br>2.301<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.000 | \$ 1.50   | \$22 875 777 8 887 778 8 887 778 8 887 778 8 887 778 8 887 778 8 877 778 8 877 8   | 0.601<br>0.552<br>0.613<br>0.591<br>0.628<br>0.599<br>0.628<br>0.621<br>0.600<br>0.635<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.593<br>0.614<br>0.625<br>0.635<br>0.635<br>0.614<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0.635<br>0. | 0.7924 0.7055 0.200 0.705 0.70 | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.886<br>1.707<br>1.873<br>1.688<br>1.688<br>1.688<br>1.784<br>1.586<br>1.784<br>1.586<br>1.794<br>1.867<br>1.792<br>1.867<br>1.794<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190 | 3.259 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.270 0.0000 3.270 0.00000 3.270 0.00000 3.270 0.000000000000000000000000000000000   | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0.000   | 0.000 0.252 0.000 0.252 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.255 0.255  | 0.342<br>0.384<br>0.387<br>0.383<br>0.387<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.387<br>0.392<br>0.397<br>0.393<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406<br>0.406  | \$\frac{1}{2}\$\text{SEE}\$ \$\text{C-93}\$ \$\tex | 4626 333<br>4707 368<br>4707 368<br>4708 367<br>4708 367<br>4478 340<br>4478 340<br>4472 348<br>4472 3   |
| 187    | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1039 1.039 1.039 1.039 1.039 1.039 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.037 1.038 1.038 1.039 1 | 0.000   0   0.000   0   0.000   0   0.000   0  | .000 0.99  | 88 2.388 34 2.388 34 2.388 39 2.315 85 2.271 31 2.406 77 2.355 31 2.406 77 2.355 31 2.405 35 2.271 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.370 35 2.445 35 2.458 36 2.531 36 2.531 36 2.531 36 2.531 36 2.531 36 2.531 36 2.531 37 2.661 37 2.661 37 2.661 37 2.661 38 2.661 38 2.661 39 2.661 39 2.661 39 2.661 39 2.661 30  | 2.353<br>2.253<br>2.253<br>2.291<br>2.238<br>2.2361<br>2.301<br>2.301<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.314<br>2.317<br>2.316<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.318<br>2.311<br>2.311<br>2.312<br>2.311<br>2.312<br>2.312<br>2.311<br>2.312<br>2.312<br>2.311<br>2.312<br>2.312<br>2.312<br>2.313<br>2.311<br>2.312<br>2.312<br>2.313<br>2.314<br>2.317<br>2.314<br>2.317<br>2.316<br>2.317<br>2.317<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318 | 0.000  | 3.595 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.595 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.495 1.1 3.593  | \$22 875 776 3.887 7776 3.887 7776 3.887 7776 3.887 7776 3.887 7776 7776 7776 7776 7776 7776 7776  | 0.601 0.552 0.613 0.591 0.628 0.599 0.628 0.628 0.629 0.628 0.635 0.614 0.626 0.614 0.626 0.614 0.626 0.614 0.626 0.614 0.626 0.614 0.627 0.644 0.643 0.643 0.643 0.643 0.643 0.643 0.643 0.643  | 0.724 1.005 0.200 0.750  | 2.006 1.918 1.869 2.030 1.707 1.889 2.030 1.707 1.886 1.688 1.688 1.784 1.586 1.704 1.586 1.704 1.586 1.704 1.581 1.701 1.808 1.717 1.608 1.772 1.608 1.773 1.611 1.810 1.773 1.988 1.998   | 3.299 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.289 0.000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.0000 3.280 0.00000 3.280 0.00000 3.280 0.00000 3.280 0.00000 3.280 0.000000000000000000000000000000000   | 0.000  | 6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.  | 0 0000  | 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.253 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.259 0.000 0.250 0.000  | 0.342<br>0.384<br>0.3971<br>0.333<br>0.3971<br>0.383<br>0.395<br>0.385<br>0.385<br>0.385<br>0.385<br>0.387<br>0.397<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.406<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.40 | 0.835   0.43   | 4.626 3.53 4.707 4.626 4.707 4.626 4.707 4.626 4.707 4.626 4.708 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4.709 4.708 4   |
| 187    | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037  | 0,000   0   0,000   0   0,000   0   0,000   0  |  | 88 2.588 34 2.588 34 2.588 399 2.315 55 2.271 31 2.406 77 2.385 51 2.406 77 2.385 51 2.406 77 2.385 51 2.417 78 2.485 55 2.390 51 2.417 51   | 2.353<br>2.253<br>2.251<br>2.238<br>2.238<br>2.301<br>2.301<br>2.301<br>2.301<br>2.314<br>2.314<br>2.314<br>2.314<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318<br>2.318  | 0 000 000 000 000 000 000 000 000 000  | \$ 1.00   | \$22 875 777 8 388 777 8 388 777 8 388 777 8 388 777 8 388 777 8 388 777 8 778   | 0.601 0.552 0.613 0.591 0.628 0.529 0.628 0.628 0.621 0.600 0.638  | 0.792   0.792   0.792   0.792   0.792   0.792   0.792   0.793  | 2.006<br>1.918<br>1.869<br>2.030<br>1.707<br>1.886<br>1.707<br>1.873<br>1.688<br>1.688<br>1.688<br>1.784<br>1.586<br>1.784<br>1.586<br>1.794<br>1.867<br>1.792<br>1.867<br>1.794<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190<br>1.190 | 3.259 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.270 0.000 3.271 0.000 3.271 0.000 3.272 0.000 3.273 0.000 3.273 0.000 3.274 0.000 3.274 0.000 3.275 0.000  | 0.000   0.00   | 6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000 | 0 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | 0.000 0.252 0.000 0.252 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.253 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.254 0.000 0.255 0.255 0.000 0.255  | 0.342 0.354 0.3971 0.334 0.3971 0.334 0.397 0.398 0.398 0.398 0.398 0.399 0.39   | 0.486   0.491   0.481   0.485   0.481   0.485   0.481   0.481   0.485   0.481   0.485   0.48   | 4628 138<br>4707 268<br>4707 268<br>4708 267<br>4478 367<br>4478 340<br>4478 340<br>4472 388<br>4472 388<br>472 388<br>473 388<br>473 388<br>47   |
| 185   1859   18537   18590   18537   18590   18537   18590   18537   18590   18537   18590     | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037 1.057 1.057 1.057 1.057 1.057 1.057 1.057 1.057 1.057 1.058  | 0,000   0   0,000   0   0,000   0   0,000   0  |  | 88 2.588  88 2.588  89 2.315  85 2.271  81 2.688  81 2.288  81 2.281  81 2.406  81 2.288  81 2.281  81 2.406  81 2.288  81 2.281  81 2.406  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.485  81 2.581   | 2.353<br>2.251<br>2.353<br>2.291<br>2.382<br>2.361<br>2.361<br>2.398<br>2.361<br>2.398<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.316<br>2.316<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317<br>2.317  | 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 | 3.595 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.593 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.696 1.1 3.596 1.1 3.596 1.1 3.596 1.1 3.596 1.1 3.596 1.1 3.597 1.1 3.596 1.1 3.597 1.1 3.596 1.1 3.597 1.1 3.598 1.1 3.599 1.1 3.599 1.1 3.599 1.1 3.599 1.1 3.999 1.1  | \$22 8.875 \$797 3.887 \$797 3.887 \$791 3.877 \$793 3.887 \$791 3.887 \$791 3.887 \$797 3.887 \$  | 0.601 0.552 0.613 0.591 0.628 0.599 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.628 0.618 0.628  | 0.754 1.005 0.200 0.750  | 2.005<br>1.918<br>1.889<br>2.030<br>1.895<br>2.030<br>1.707<br>1.836<br>1.676<br>1.688<br>1.688<br>1.794<br>1.792<br>1.646<br>1.794<br>1.791<br>1.897<br>1.791<br>1.897<br>1.792<br>1.648<br>1.793<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.793<br>1.897<br>1.897<br>1.897<br>1.897<br>1.897<br>1.897<br>1.897<br>1.897<br>1.897<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998<br>1.998 | 3.299 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.298 0.000 3.297 0.000 3.297 0.000 3.297 0.000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.0000 3.298 0.00000 3.298 0.00000 3.298 0.00000 3.298 0.000000 3.298 0.00000000000000000000000000000000000  | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0 0000 0   | 0.000 0.252 0.000 0.252 0.000 0.000 0.253 0.000 0.000 0.253 0.000 0.000 0.253 0.000 0.000 0.254 0.000 0.000 0.254 0.000 0.000 0.254 0.000 0.000 0.255 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000 | 0.342<br>0.384<br>0.371<br>0.333<br>0.371<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.389<br>0.393<br>0.393<br>0.393<br>0.393<br>0.393<br>0.406<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400  | 0.285   0.28   | 4268 133 4707 126 4707 126 4707 126 4708 126 470   |
| 185   1859   18537   18590   18537   18590   18537   18590   18537   18590     | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037  | 0,000   0   0,000   0   0,000   0   0,000   0  |  | 88   | 2.353<br>2.253<br>2.291<br>2.351<br>2.351<br>2.351<br>2.351<br>2.352<br>2.351<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352<br>2.352  | 0 000 000 000 000 000 000 000 000 000  | 3.588 1.1 3.534 1.1 3.534 1.1 3.534 1.1 3.545 1.1 3.555  | \$22 875 777 8 388 777 8 388 777 8 388 777 8 388 777 8 388 777 8 388 777 8 778   | 0.601 0.552 0.613 0.591 0.628 0.529 0.628 0.628 0.621 0.600 0.638  | 0.754 1.005 0.200 0.750  | 2.006 1.918 1.869 2.030 1.707 1.889 2.030 1.707 1.886 1.688 1.688 1.784 1.586 1.704 1.586 1.704 1.586 1.704 1.581 1.701 1.808 1.717 1.608 1.772 1.608 1.773 1.611 1.810 1.773 1.988 1.998   | 3.259 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.260 0.000 3.270 0.000 3.271 0.000 3.271 0.000 3.272 0.000 3.273 0.000 3.273 0.000 3.274 0.000 3.274 0.000 3.275 0.000  | 0.000   0.00   | 6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000<br>6.000 | 0 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.000  | 0.342<br>0.364<br>0.354<br>0.351<br>0.363<br>0.363<br>0.363<br>0.363<br>0.385<br>0.385<br>0.382<br>0.385<br>0.382<br>0.385<br>0.382<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385  | 0.486   0.491   0.481   0.485   0.481   0.485   0.481   0.481   0.485   0.481   0.485   0.48   | 4 6 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  |
| 187    | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037  | 0,000   0   0,000   0   0,000   0   0,000   0  |  | 88   | 2.353<br>2.251<br>2.251<br>2.238<br>2.361<br>2.361<br>2.306<br>2.306<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316  | 0 0000 0000 0000 0000 0000 0000 0000 0000  | 3.588 1.1 3.534 1.1 3.534 1.1 3.534 1.1 3.545 1.1 3.555  | \$22 875 777 8 387 777 8 387 777 8 387 778 3 877 778 3 877 778 3 877 778 3 877 778 3 877 778 3 877 778 778   | 0.601 0.532 0.532 0.532 0.533 0.591 0.591 0.592 0.593  | 0.7924 0.1005 0.200 0.792 0.792 0.192 0.292 0.292 0.793 0.706 0.176 0.868 0.189 0.189 0.794 0.794 0.874 0.874 0.874 0.874 0.874 0.875 0.192 0.292 0.793 0.706 0.775 0.77 | 2.005<br>1.918<br>1.889<br>2.030<br>1.707<br>1.895<br>1.668<br>1.688<br>1.688<br>1.688<br>1.686<br>1.702<br>1.741<br>1.751<br>1.873<br>1.751<br>1.873<br>1.752<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.752<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753 | 3.299 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.287 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.280 0.000 3.280 0.000 3.280 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.282 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.284 0.000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.00000 3.285 0.00000 3.285 0.00000000000000000000000000000000000 | 0.000   0.00   | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.253  | 0.342<br>0.384<br>0.371<br>0.383<br>0.383<br>0.383<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.382<br>0.387<br>0.389<br>0.399<br>0.399<br>0.399<br>0.399<br>0.406<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400<br>0.400  | 0.486   0.471   0.481   0.485   0.481   0.485   0.481   0.485   0.481   0.485   0.481   0.485   0.48   | 4 6 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  |
| 185   1859   18537   18590   18537   18590   18537   18590   18537   18590   18537   18590     | 3 3 3 | 3 0 3 1           | 111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369<br>111.369            | 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.039 1.037  | 0,000   0   0,000   0   0,000   0   0,000   0  | .000 0.99 .000 0 | 88   | 2.353<br>2.251<br>2.251<br>2.238<br>2.361<br>2.361<br>2.306<br>2.306<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.306<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.314<br>2.397<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316<br>2.316  | 0.0000 0. | 3.588 1.1 3.534 1.1 3.534 1.1 3.534 1.1 3.534 1.1 3.534 1.1 3.667  | \$22 875 777 8 387 777 8 387 777 8 387 778 3 877 778 3 877 778 3 877 778 3 877 778 3 877 778 3 877 778 778   | 0.601 0.532 0.532 0.532 0.533 0.591 0.591 0.592 0.593  | 0.752   0.1705   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.200   0.750   0.750   0.200   0.750   0.750   0.200   0.750   0.200   0.750   0.200 | 2.005<br>1.918<br>1.889<br>2.030<br>1.707<br>1.895<br>1.668<br>1.688<br>1.688<br>1.688<br>1.686<br>1.702<br>1.741<br>1.751<br>1.873<br>1.751<br>1.873<br>1.752<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.873<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.751<br>1.752<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753<br>1.753 | 3.299 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.281 0.000 3.282 0.000 3.282 0.000 3.283 0.000 3.283 0.000 3.285 0.000 3.286 0.000 3.286 0.000 3.286 0.000 3.287 0.000 3.287 0.000 3.288 0.000 3.288 0.000 3.288 0.000 3.280 0.000 3.281 0.000 3.282 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.283 0.000 3.284 0.000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.0000 3.285 0.00000 3.285 0.00000 3.285 0.00000000000000000000000000000000000 | 0.000  | 0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000<br>0.000 | 0 000 0 000 0 000 0 000 0 000 0 000 0 000 0   | 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.252 0.000 0.000  | 0.342<br>0.364<br>0.354<br>0.351<br>0.363<br>0.363<br>0.363<br>0.363<br>0.385<br>0.385<br>0.382<br>0.385<br>0.382<br>0.385<br>0.382<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385<br>0.385  | 0.285   0.28   | 4263 333 4709 367 4707 368 4707 488 4707 488 4708 367 4708 367 4708 367 4708 367 4708 367 4708 3708 4708 3   |

|                        | _      | р.             |                    | D.                 |                    |                |                    |        |          |                |        | V      |        | 1 1/4 |                    | 0              |                |                | Гр             |                | T .              |                  | - V              |                  |                    | _              | 7                  | 1                | AB               | AC.                | AD               | A.E.               | A.E.           | 40               | AM               | AI.              | Α1               | I AV           | A1                 | T 444          | AN    | 10             | AD               | 40                 | AD                 |
|------------------------|--------|----------------|--------------------|--------------------|--------------------|----------------|--------------------|--------|----------|----------------|--------|--------|--------|-------|--------------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|--------------------|----------------|--------------------|------------------|------------------|--------------------|------------------|--------------------|----------------|------------------|------------------|------------------|------------------|----------------|--------------------|----------------|-------|----------------|------------------|--------------------|--------------------|
| 201 7.35               | 24     | 1.114          | -7.350             | -24.114            | 7.193              | 0.074          | 144.690            | 0 1.02 | 19       | 1              | 3      | 3      | 3      | 0     | 111.369            | 1.386          | 1.386          | 0.000          | 0.000          | 0.868          | 3.446            | 2.990            | 0.000            | 0.000            | 4.191              | 1.274          | 5.807              | 0.628            | 0.778            | 0.930              | 0.256            | 1.932              | 3.141          | 0.000            | 0.000            | 0.000            | 0.000            | 0.000          | 0.000              | 0.387          | 0.565 | 0.938          | 0.598            | 5.981              | 4.191              |
| 202 7.40<br>203 7.45   | 24     |                | -7.400<br>-7.450   | -24.278<br>-24.442 | 7.433<br>7.580     | 0.072          | 150.520            | 0.96   | 16       | 1              | 3      | 3      | 3      | 1     | 111.369            | 1.405          | 1.396          | 0.000          | 0.000          | 0.865<br>0.862 | 3.560<br>3.631   | 3.130            | 0.000            | 0.000            | 4.328<br>4.398     | 1.192          | 6.038<br>6.176     | 0.614<br>0.620   | 0.761            | 1.055              | 0.276            | 2.052              | 3.116          | 0.000            | 0.000            | 0.000            | 0.000            | 0.000          | 0.000              | 0.403          | 0.588 | 0.965          | 0.616            | 6.160<br>6.261     | 4.328<br>4.398     |
| 204 7.50               |        | 1.606          | -7.500<br>-7.550   | -24.606<br>-24.770 | 7.576<br>8.300     | 0.091          | 156.400            | 1.20   | 17       | 5              | 3      | 3      | 3      | 0     | 114.551            | 1.414          | 1.414          | 0.000          | 0.000          | 0.859          | 3.629            | 3.119            | 2.715            | 1.631            | 4.361              | 1.477          | 6.163              | 0.645            | 0.792            | 0.905              | 0.258            | 1.906              | 3.153          | 69.397           | 0.000            | 0.000            | 0.000            | 0.000          | 0.000              | 0.411          | 0.611 | 0.972          | 0.624            | 6.238              | 4.361              |
| 206 7.60               | 24     | 1.934          | -7.600             | -24.934            | 20.370             | 0.270          | 187.340            | 1.32   | 26       | 6              | 4      | 4      | 3      | 4     | 114.551            | 1.433          | 1.433          | 0.000          | 0.000          | 0.854          | 7.806            | 6.664            | 5.621            | 3.809            | 13.223             | 1.426          | 18.937             | 0.287            | 0.309            | 9.138              | 1.391            | 10.140             | 2.721          | 41.584           | 0.000            | 31.038           | 0.016            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.666            | 16.660             | 13.223             |
| 207 7.65               |        |                |                    | -25.098<br>-25.262 | 26.626<br>31.474   | 0.478          | 93.790             |        |          | 6              | 4      | 6      | 5      | 4     | 114.551            | 1.442          | 1.439          |                | 0.098          |                | 10.203           | 8.691<br>10.259  | 7.204<br>8.591   | 4.945<br>5.929   | 17.507<br>20.809   | 1.898          | 25.184<br>30.023   | 0.110            | 0.116            | 15.474             | 2.270            | 16.474             | 2.684          | 39.605<br>40.483 | 0.000            | 32.307<br>33.099 | -0.058<br>-0.101 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.173            | 21.729<br>25.647   | 17.507             |
| 209 7.75               |        |                |                    | -25.426<br>-25.590 | 33.523<br>31.815   | 0.888          |                    |        |          | 6              | 4      | 6      | 5      | 4     | 114.551            | 1.461          | 1.448          |                |                |                | 12.846           | 10.911           | 9.136            | 6.303            | 22.158             | 2.770          | 32.063             | 0.088            | 0.092            | 20.116             | 2.927            | 21.117             | 2.698          | 40.326           | 30.038           | 33.394           | -0.124<br>-0.120 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.728            | 27.277             | 22.158             |
| 211 7.85               | 25     | 5.754          | -7.850             | -25.754            | 30.668             | 0.818          | 163.090            | 2.66   |          | 6              | 4      | 5      | 4      | 4     | 114.551            | 1.480          | 1.456          | 0.024          | 0.755          | 0.847          | 11.752           | 9.952            | 8.525            | 5.819            | 20.053             | 2.802          | 29.189             | 0.113            | 0.174            | 16.571             | 2.450            | 17.572             | 2.735          | 42.340           | 0.000            | 32.954           | -0.101           | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.488            | 24.880             | 20.053             |
| 212 7.90               |        |                | -7.900<br>-7.950   | -25.918<br>-26.082 | 29.092             | 0.710          | 165.260<br>280.170 | 2.44   |          | 6              | 4      | 5      | 4      | 4     | 114.551            | 1.489          | 1.460          | 0.029          | 1.083          |                | 11.148           | 9.427            | 8.078<br>8.276   | 5.480            | 18.908<br>19.569   | 2.572          | 27.603<br>28.651   | 0.176            | 0.186            | 15.393             | 2.293            | 16.394<br>14.619   | 2.733          | 42.226           | 0.000            | 32.695<br>32.859 | -0.084<br>-0.066 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.357            | 23.567             | 18.908             |
| 214 8.00<br>215 8.05   |        |                | -8.000<br>-8.050   | -26.246<br>-26.410 | 32.143<br>33.881   | 0.727          | 245.500            |        | 52       | 6              | 4      | 5      | 4      | 4     | 114.551            | 1.508          | 1.469          |                | 1.247          |                | 12.317<br>12.983 | 10.385           | 8.669<br>9.085   | 5.874<br>6.152   | 20.863<br>21.976   | 2.373          | 30.635<br>32.364   | 0.237            | 0.249            | 15.669<br>16.841   | 2.345            | 16.671<br>17.843   | 2.678<br>2.667 | 39.281           | 0.000<br>30.090  | 33.158<br>33.402 | -0.078<br>-0.089 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.596            | 25.962<br>27.326   | 20.863             |
| 216 8.10               |        | 5.574          | -8.100             | -26.574            | 39.524             | 0.945          | 293.800            |        | 91       | 6              | 4      | 5      | 4      | 4     | 114.551            | 1.527          | 1.478          | 0.049          | 1.576          | 0.841          | 15.146           | 12.733           | 10.337           | 7.024            | 25.727             | 2.487          | 37.998             | 0.223            | 0.240            | 19.549             | 2.908            | 20.552             | 2.618          | 36.228           | 34.464           | 34.131           | -0.108           | 3.839          | 151.785            | 0.000          | 0.000 | 0.000          | 3.183            | 31.832             | 25.727             |
| 217 8.15               | 26     |                | -8.150<br>-8.200   | -26.739<br>-26.903 | 42.938<br>66.334   | 1.366<br>1.572 | 267.130            | 3.18   | 70       | 5              | 4<br>5 | 5<br>7 | 5<br>6 | 4     | 114.551            | 1.536          | 1.482          | 0.054          | 1.740          |                | 20.567<br>25.419 | 17.266<br>21.308 | 11.521<br>15.420 | 7.829<br>12.926  | 27.951<br>43.614   | 3.299<br>2.426 | 41.402<br>64.789   | 0.193            | 0.200            | 22.357<br>40.611   | 3.315<br>5.922   | 23.359<br>41.612   | 2.668<br>2.370 | 38.765<br>25.195 | 0.000<br>49.223  | 0.000<br>36.591  | 0.000<br>-0.190  | 0.000<br>3.006 | 0.000<br>199.498   | 2.761<br>0.000 | 1.036 | 10.000         | 3.453<br>5.327   | 34.531<br>53.270   | 27.951<br>53.270   |
| 219 8.25               |        | 7.067          | -8.250<br>-8.300   | -27.067<br>-27.231 | 88.611             | 1.677          | 27.400             |        | 13       | 7              | 5      | 8      | 6      | 5     | 117.733            | 1.555          | 1.491          |                | 2.068          | 0.837          | 28.296<br>33.236 | 23.685           | 19.221           | 16.088<br>18.251 | 58.431<br>68.599   | 1.926          | 87.057             | 0.009            | 0.009            | 57.900<br>68.645   | 8.407<br>9.971   | 58.901<br>69.645   | 2.210          | 19.326           | 57.480<br>62.049 | 37.968<br>38.729 | -0.201<br>-0.207 | 2.613          | 231.650            | 0.000          | 0.000 | 0.000          | 7.105<br>8.333   | 71.055<br>83.332   | 71.055<br>83.332   |
| 221 8.35               | 27     | 7.395          | -8.350             | -27.395            | 181.254            | 1.388          | 0.720              | 0.76   |          | 9              | 6      | 9      | 6      | 6     | 124.097            | 1.575          | 1.500          | 0.075          | 2.396          | 0.834          | 34.728           | 28.978           | 32.571           | 27.178           | 119.849            | 0.772          | 179.681            | -0.000           | -0.000           | 119.883            | 17.362           | 120.883            | 1.715          | 6.399            | 77.904           | 41.371           | -0.181           | 2.027          | 367.606            | 0.000          | 0.000 | 0.000          | 14.489           | 144.890            | 144.890            |
| 222 8.40<br>223 8.45   |        | 7.723          |                    | -27.559<br>-27.723 | 237.731            | 1.009<br>0.391 | -4.590<br>-4.970   |        | 37       | 10             | 7      | 10     | 7      | 7     | 127.279            | 1.585          | 1.505          | 0.080          | 2.561<br>2.725 | 0.832          | 37.958<br>45.623 |                  | 39.307<br>43.179 | 32.741<br>35.904 | 156.969<br>188.208 | 0.427          | 236.147<br>284.144 | -0.001           | -0.001           | 157.117<br>188.367 | 22.788<br>27.389 | 158.117            | 1.464          | 0.000            | 85.629<br>90.851 | 42.659<br>43.529 | -0.154<br>-0.076 | 1.999<br>0.000 | 475.440<br>0.000   | 0.000          | 0.000 | 0.000          | 18.971<br>22.762 | 189.708<br>227.615 | 189.708<br>227.615 |
| 224 8.50               |        |                |                    | -27.887<br>-28.051 | 286.574<br>102.587 | 0.656<br>0.856 | -5.740<br>10.710   |        |          | 10             | 6      | 10     | 7      | 7     | 127.279            | 1.606          | 1.516          |                |                |                | 45.756<br>24.570 | 37.980<br>20.360 | 44.422<br>19.967 | 36.872<br>16.546 | 188.092<br>66.424  | 0.230          | 284.969<br>100.972 | -0.001<br>0.002  | -0.001<br>0.002  | 188.269<br>66.266  | 27.471           | 189.269<br>67.266  |                | 0.000            | 90.884           | 43.535<br>38.619 | -0.118<br>-0.134 | 0.000<br>2.469 | 0.000<br>253.409   | 0.000          | 0.000 | 0.000          | 22.788           | 227.880<br>81.440  | 227.880<br>81.440  |
| 226 8.60               | 28     | 3.215          |                    | -28.215<br>-28.379 | 272.200            | 0.910          | 4.850              |        | 14       | 10             | 6      | 10     | 7      | 6     | 127.279            | 1.626          | 1.526          |                |                |                | 43.461           | 35.955           | 43.550           | 36.028           | 177.406            | 0.336          | 270.575            | 0.000            | 0.000            | 177.373            | 26.062           | 178.373            |                | 1.049            | 89.314<br>88.714 | 43.273           | -0.144<br>-0.135 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 21.573           | 215.731            | 215.731            |
| 227 8.65               |        | 3.379<br>3.543 | -8.700             | -28.543            | 259.718            | 0.813          | -1.920             | 0.31   | 12       | 10             | 6      | 10     | 6      | 6     | 127.279            | 1.647          | 1.531          | 0.111          | 3.545          | 0.824          | 41.468           | 34.187           | 42.537           | 35.129<br>34.284 | 168.037            | 0.306          | 258.072            | -0.000           | -0.000           | 168.148            |                  | 169.148            |                | 1.078            | 87.868           | 43.1/3           | -0.134           | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 21.126           | 205.124            | 205.124            |
| 229 8.75               |        |                |                    | -28.707<br>-28.871 | 248.073<br>249.111 | 0.970<br>1.153 | -1.200<br>0.120    |        | 3        | 10             | 6      | 10     | 6      | 6     | 127.279            | 1.658          | 1.542          | 0.116          | 3.710          | 0.823          |                  | 32.598<br>32.678 | 40.611           | 33.423<br>33.955 | 159.893<br>160.008 | 0.394          | 246.416            | -0.001<br>-0.000 | -0.001<br>-0.000 | 159.993<br>160.084 | 23.769<br>23.864 | 160.993<br>161.084 | 1.433          | 1.935            | 86.504<br>86.574 | 42.805<br>42.816 | -0.149<br>-0.163 | 2.049          | 508.547<br>511.957 | 0.000          | 0.000 | 0.000          | 19.559<br>19.607 | 195.588            | 195.588<br>196.069 |
| 231 8.85               | 29     | 9.035          | -8.850             | -29.035<br>-29.199 | 253.025            | 1.065          | 2.440              | 0.42   | 21       | 10             | 6      | 10     | 6      | 6     | 127.279            | 1.678          | 1.552          | 0.126          | 4.038          | 0.820          |                  | 33.135           | 41.588           | 34.109<br>34.706 | 161.976            | 0.424          | 251.348            | -0.000           | -0.000           | 162.008            |                  | 163.008            | 1.446          | 2.098            | 86.972<br>88.336 | 42.883<br>43.110 | -0.156<br>-0.132 |                | 527.623            | 0.000          | 0.000 | 0.000          | 19.881           | 198.808            | 198.808            |
| 233 8.95               | 29     | 9.363          | -8.950             | -29.363            | 249.635            | 0.560          | 16.860             | 0.22   | 24       | 10             | 6      | 9      | 6      | 7     | 127.279            | 1.689          | 1.563          | 0.136          | 4.366          | 0.817          | 39.858           | 32.579           | 39.352           | 32.165           | 158.690            | 0.226          | 264.122            | 0.002            | 0.002            | 158.440            | 23.865           | 159.440            | 1.311          | 0.521            | 86.488           | 42.802           | -0.102           | 2.050          | 511.894            | 0.000          | 0.000 | 0.000          | 19.548           | 195.476            | 195.476            |
| 234 9.00               |        |                | -9.000<br>-9.050   | -29.527<br>-29.691 | 257.668            | 0.633          | 2.870<br>0.820     |        |          | 10             | 6      | 10     | 6      | 6     | 127.279            | 1.710          | 1.568          | 0.141          | 4.530<br>4.694 | 0.816          | 41.141<br>37.965 | 33.571<br>30.926 | 40.695<br>38.098 | 33.206<br>31.035 | 163.269<br>150.064 | 0.247          | 255.959<br>236.056 | -0.000<br>-0.001 | -0.000<br>-0.001 | 163.302<br>150.141 | 24.676<br>22.776 | 164.302<br>151.141 |                | 0.586            | 87.347<br>84.995 | 42.945<br>42.553 | -0.112<br>-0.111 | 0.000<br>1.982 | 0.000<br>471.537   | 0.000          | 0.000 | 0.000          | 20.142           | 201.423            | 201.423<br>185.558 |
| 236 9.10               |        |                | -9.100             | -29.855<br>-30.019 | 191.224            | 0.869          | 0.710              | 0.45   |          | 9              | 6      | 9      | 6      | 6     | 124.097            | 1.730          | 1.579          | 0.152          |                | 0.813          | 36.639<br>28.277 | 29.797           | 32.698           | 26.592           | 120.068            | 0.459          | 189.495            | -0.001           | -0.001           | 120.150            | 18.317           | 121.150            | 1.568          | 3.850            | 78.703<br>71.232 | 41.505           | -0.136<br>-0.136 |                | 386.446<br>324.724 | 0.000          | 0.000 | 0.000          | 14.898           | 148.985            | 148.985            |
| 238 9.20               | 30     | 0.183          | -9.200             | -30.183            | 116.935            | 1.073          | 0.860              | 0.91   | 18       | 8              | 6      | 9      | 6      | 5     | 124.097            | 1.751          | 1.589          | 0.162          | 5.187          | 0.811          | 28.006           | 22.705           | 22.651           | 18.363           | 72.525             | 0.932          | 115.185            | -0.001           | -0.001           | 72.610             | 11.200           | 73.610             | 1.923          | 10.967           | 64.515           | 39.140           | -0.151           | 2.380          | 278.452            | 0.000          | 0.000 | 0.000          | 9.082            | 90.819             | 90.819             |
| 239 9.25               |        | 0.347          |                    | -30.347<br>-30.511 | 82.872<br>34.019   | 1.452          | 0.380<br>-1.700    |        |          | 7              | 5      | 9 7    | 6<br>5 | 5     | 117.733            | 1.761          | 1.594          | 0.167          |                |                | 26.464<br>32.591 |                  | 18.058<br>10.610 | 14.618<br>6.574  | 50.922<br>20.192   | 1.790<br>5.833 | 81.113<br>32.250   | -0.002<br>-0.007 | -0.002<br>-0.007 | 51.020<br>20.333   | 7.938<br>3.264   | 52.020<br>21.333   |                | 19.696<br>54.384 | 54.604<br>0.000  | 37.488<br>0.000  | -0.179<br>0.000  | 2.762<br>0.000 | 228.952<br>0.000   | 0.000<br>2.151 | 0.000 |                | 6.427<br>2.635   | 64.269<br>26.347   | 64.269<br>20.192   |
| 241 9.35<br>242 9.40   |        |                |                    | -30.675<br>-30.840 | 27.153<br>15.431   | 1.426<br>0.527 | 50.210             |        | ~        | 3              | 3      | 6      | 5      | 3     | 111.369            | 1.779          | 1.602          | 0.177          | 5.679<br>5.843 |                | 26.013<br>9.855  | 21.003           | 8.829<br>5.397   | 5.379            | 15.848<br>8.499    | 5.620<br>3.863 | 25.375<br>13.643   | 0.051            | 0.055            | 14.979<br>5.588    | 2.451            | 15.980             | 3.005          | 58.853           | 0.000            | 0.000            | 0.000            | 0.000          | 0.000              | 1.692<br>0.910 | 0.174 | 4.949<br>2.039 | 2.100            | 21.003<br>11.920   | 15.848<br>8.499    |
| 243 9.45               | 31     | .004           | -9.450             | -31.004            | 17.686             | 0.141          | 122.740            | 0.79   | 97       | 6              | 4      | 5      | 3      | 4     | 114.551            | 1.798          | 1.610          | 0.187          | 6.007          | 0.805          | 6.777            | 5.458            | 4.923            | 2.868            | 9.872              | 0.887          | 15.889             | 0.206            | 0.229            | 7.607              | 1.327            | 8.608              | 2.737          | 42.471           | 0.000            | 30.085           | 0.064            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.364            | 13.645             | 9.872              |
| 244 9.50<br>245 9.55   | 31     | .332           | -9.550             | -31.168<br>-31.332 | 14.552<br>12.429   | 0.137<br>0.108 | 139.740            |        |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.807          | 1.615          | 0.198          | 6.336          | 0.803          | 5.576<br>4.763   | 4.485<br>3.825   | 4.338<br>3.843   | 2.457            | 7.898<br>6.559     | 1.075          | 12.746<br>10.614   | 0.287            | 0.327            | 5.313<br>3.345     | 0.976            | 6.314<br>4.346     |                | 49.581<br>53.469 | 0.000            | 29.147<br>28.387 | 0.086            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.121<br>0.956   | 11.212<br>9.564    | 7.898<br>6.559     |
| 246 9.60<br>247 9.65   | 31     |                | -9.600<br>-9.650   | -31.496<br>-31.660 | 11.903<br>12.229   | 0.099          | 187.830            |        | 12       | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.826          | 1.623          |                | 6.500          | 0.802          | 4.561<br>4.686   | 3.659<br>3.754   | 3.714<br>3.706   | 2.023            | 6.211<br>6.390     | 0.982          | 10.077             | 0.476            | 0.562            | 2.721<br>3.077     | 0.579            | 3.723<br>4.078     | 2.939          | 54.438<br>51.323 | 0.000            | 28.174<br>28.297 | 0.155            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.915<br>0.938   | 9.146<br>9.385     | 6.211              |
| 248 9.70               | 31     | .824           | -9.700             | -31.824            | 11.763             | 0.086          | 176.720            |        | 31       | 6              | 4      | 3      | 3      | Ť     | 114.551            | 1.845          | 1.632          | 0.213          | 6.828          | 0.800          | 4.508            | 3.606            | 3.641            | 1.965            | 6.082              | 0.867          | 9.919              | 0.451            | 0.535            | 2.829              | 0.598            | 3.830              | 2.925          | 53.570           | 0.000            | 28.105           | 0.157            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.902            | 9.015              | 6.082              |
| 249 9.75<br>250 9.80   | 32     | 2.152          | -9.800             | -31.988<br>-32.152 | 12.080<br>12.573   | 0.090          | 194.350            | 0.66   |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.854<br>1.864 | 1.636<br>1.640 | 0.223          | 7.156          | 0.799          | 4.818            | 3.698<br>3.844   | 3.720<br>3.788   | 2.010            | 6.254<br>6.533     | 0.880<br>0.784 | 10.226<br>10.711   | 0.466<br>0.465   | 0.551<br>0.546   | 2.809<br>2.967     | 0.597<br>0.623   | 3.810<br>3.969     | 2.916<br>2.879 | 53.029           | 0.000            | 28.225<br>28.411 | 0.157<br>0.159   | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.925            | 9.246<br>9.611     | 6.254<br>6.533     |
| 251 9.85               |        |                | -9.850<br>-9.900   | -32.316<br>-32.480 | 12.648             | 0.105          | 201.520            |        |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.873          | 1.644          | 0.228<br>0.234 | 7.321          | 0.797          | 4.847<br>4.884   | 3.862            | 3.893<br>3.946   | 2.106<br>2.130   | 6.556              | 0.974          | 10.776             | 0.479            | 0.563            | 2.866<br>2.987     | 0.609            | 3.868<br>3.988     | 2.916          | 52.985<br>53.604 | 0.000            | 28.433<br>28.463 | 0.150            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.966            | 9.656<br>9.717     | 6.556<br>6.591     |
| 253 9.95               |        |                | -9.950             | -32.644<br>-32.808 | 12.509             | 0.102          | 195.250            |        | 15       | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.892          | 1.653          | 0.239          | 7.649          | 0.795          | 4.793            | 3.810            | 3.863            | 2.071            | 6.426              | 0.961          | 10.618             | 0.468            | 0.552            | 2.881              | 0.615            | 3.882              | 2.921          | 53.323           | 0.000            | 28.367           | 0.150            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.952            | 9.525              | 6.426              |
| 255 10.05              | 0 32   | 2.972          | -10.050            | -32.972            | 12.511             | 0.084          | 197.240            | 0.67   |          | 6              | 4      | 3      | 3      | ++    | 114.551            | 1.910          | 1.662          | 0.249          | 7.977          | 0.793          | 4.794            | 3.801            | 3.794            | 2.021            | 6.383              | 0.792          | 10.602             | 0.472            | 0.557            | 2.825              | 0.609            | 3.826              | 2.890          | 51.395           | 0.000            | 28.356           | 0.163            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.950            | 9.502              | 6.383              |
| 256 10.10<br>257 10.15 |        |                |                    | -33.136<br>-33.300 | 12.154<br>17.267   | 0.105<br>0.149 | 204.060            | 0.86   | 3        | 6              | 4      | 3      | 3      | 1 4   | 114.551            | 1.920          | 1.666          |                |                |                |                  | 3.687<br>5.232   | 3.820<br>4.925   | 2.017            | 6.146<br>9.188     | 1.026<br>0.971 | 10.235<br>15.338   | 0.503            | 0.598            | 2.472<br>6.237     | 0.554<br>1.158   | 3.474<br>7.238     |                | 55.211<br>44.987 | 0.000            | 28.211           | 0.161            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.922<br>1.308   | 9.219              | 6.146<br>9.188     |
| 258 10.20              |        |                |                    | -33.464<br>-33.628 | 16.817             | 0.167          | 106.900            |        |          | 6              | 4      | 5      | 3      | 4     | 114.551            | 1.939          | 1.674          |                |                |                | 6.444<br>5.065   | 5.089            | 4.906            | 2.707            | 8.890<br>6.717     | 1.122          | 14.879             | 0.183            |                  | 7.054              | 1.291            | 8.054<br>4.785     |                | 47.331<br>59.060 | 0.000            | 29.751           | 0.056            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.272            | 12.723             | 8.890<br>6.717     |
| 260 10.30              | 0 33   | 3.792          | -10.300            | -33.792            | 13.159             | 0.117          | 214.470            | 0.88   | 19       | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.957          | 1.683          | 0.275          | 8.798          | 0.788          | 5.042            | 3.972            | 4.066            | 2.148            | 6.659              | 1.044          | 11.202             | 0.488            | 0.573            | 2.841              | 0.619            | 3.843              | 2.922          | 53.395           | 0.000            | 28.567           | 0.147            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.993            | 9.930              | 6.659              |
| 261 10.35<br>262 10.40 | 0 34   |                |                    | -33.956<br>-34.120 | 12.939             | 0.099          | 201.610            |        |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 1.967          | 1.687          | 0.280          |                |                | 4.958<br>4.836   | 3.901            | 3.958<br>3.955   | 2.077            | 6.506<br>6.296     | 0.902<br>1.052 | 10.973             | 0.465            | 0.548            | 2.939<br>2.557     | 0.637<br>0.576   | 3.940<br>3.559     | 2.946          | 52.313<br>54.894 | 0.000            | 28.480<br>28.355 | 0.152            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.975<br>0.950   | 9.752<br>9.500     | 6.506              |
| 263 10.45<br>264 10.50 |        |                | -10.450<br>-10.500 | -34.284<br>-34.448 | 12.446<br>12.296   | 0.123<br>0.129 |                    |        |          | 6              | 3      | 3      | 3      | 1     | 114.551            | 1.986          | 1.696<br>1.700 | 0.290<br>0.295 |                |                | 4.769<br>4.712   | 3.743<br>3.693   | 3.969<br>3.967   | 2.054<br>2.042   | 6.171<br>6.062     | 1.176          | 10.461             | 0.493<br>0.503   | 0.587            | 2.549<br>2.420     | 0.577            | 3.550<br>3.422     |                | 56.758<br>58.015 | 0.000            | 28.282<br>28.218 | 0.152            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.936<br>0.923   | 9.356<br>9.232     | 6.171              |
| 265 10.55              | 0 34   | 1.612          | -10.550            | -34.612            | 12.677             | 0.135          | 206.160            | 0 1.06 | 5        | 6              | 3      | 3      | 3      | 1     | 114.551            | 2.004          | 1.704          | 0.300          | 9.619          | 0.783          | 4.858            | 3.803            | 4.062            | 2.096            | 6.265              | 1.265          | 10.673             | 0.484            | 0.575            | 2.662              | 0.598            | 3.664              | 2.982          | 57.289           | 0.000            | 28.358           | 0.145            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.951            | 9.506              | 6.265              |
| 266 10.60<br>267 10.65 | 0 34   | 1.941          | -10.600<br>-10.650 | -34.776<br>-34.941 | 13.254<br>14.636   | 0.135<br>0.123 | 234.450            | 0.84   |          | 6              | 4      | 3      | 3      | + 1   | 114.551<br>114.551 | 2.014          | 1.709          | 0.310          | 9.947          | 0.781          | 5.609            | 3.971<br>4.379   | 4.172<br>4.386   | 2.163<br>2.304   | 6.582<br>7.367     | 1.201<br>0.975 | 11.241<br>12.614   | 0.529<br>0.511   | 0.624            | 2.474<br>3.002     | 0.569<br>0.657   | 3.475<br>4.004     | 2.953<br>2.870 | 55.373<br>50.135 | 0.000            | 28.565<br>29.033 | 0.154<br>0.146   | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.993<br>1.095   | 9.926<br>10.948    | 6.582<br>7.367     |
| 268 10.70              |        |                | -10.700<br>-10.750 | -35.105<br>-35.269 | 14.965<br>14.267   | 0.112<br>0.126 | 231.490            | 0.74   |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 2.033          | 1.717          | 0.316          | 10.111         |                |                  | 4.472<br>4.258   | 4.407<br>4.336   | 2.316            | 7.535<br>7.105     | 0.866          | 12.933             | 0.462            | 0.535            | 3.507<br>3.202     | 0.741            | 4.509<br>4.204     |                | 48.312<br>51.640 | 0.000            | 29.133<br>28.899 | 0.138            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.118            | 11.180             | 7.535              |
| 270 10.80              | 0 35   | .433           |                    | -35.433<br>-35.597 | 13.783             | 0.125          | 229.560            |        |          | 6              | 4      | 3      | 3      | 11    | 114.551            | 2.051          | 1.726          | 0.326          | 10.439         | 0.778          |                  | 4.109            | 4.247            | 2.188            | 6.801              | 1.065          | 11.732             | 0.496            | 0.583            | 2.835              | 0.634            | 3.836              | 2.918          | 53.101           | 0.000            | 28.728           | 0.147            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.027            | 10.272             | 6.801              |
| 272 10.90              | 0 35   | 5.761          | -10.900            | -35.761            | 11.278             | 0.082          | 230.370            |        |          | 6              | 4      | 3      | 3      | 1     | 114.551            | 2.061          | 1.734          | 0.336          | 10.767         | 0.776          | 4.322            | 3.354            | 3.617            | 1.778            | 5.312              | 0.890          | 9.209              | 0.608            | 0.745            | 2.207<br>1.356     | 0.392            | 3.208<br>2.358     | 2.979          | 57.066<br>57.383 | 0.000            | 27.758           | 0.225            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.838            | 9.258<br>8.384     | 5.312              |
| 273 10.95              |        |                | -10.950<br>-11.000 | -35.925<br>-36.089 | 10.812             | 0.084          | 240.660            | 0.77   | 3        | 6              | 3      | 3      | 3      | 0     | 114.551            | 2.080          | 1.739          | 0.341          | 10.932         |                | 4.143<br>3.924   | 3.211            | 3.545            | 1.720            | 5.026<br>4.679     | 0.962          | 8.734<br>8.152     | 0.663            | 0.821            | 0.898              | 0.316            | 1.899              | 3.019          | 59.767<br>60.890 | 0.000            | 27.551           | 0.260            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.803            | 8.028<br>7.594     | 5.026<br>4.679     |
| 275 11.05              |        | 3.253          | -11.050            | -36.253<br>-36.417 | 9.768              | 0.076          | 211.090            | 0.77   | 8        | 6              | 3      | 3      | 3      | 0     | 114.551            | 2.098          | 1.747          | 0.351          | 11.260         |                | 3.743            | 2.894            | 3.327            | 1.561            | 4.392              | 0.991          | 7.670              | 0.639            | 0.814            | 0.819              | 0.305            | 1.820              | 3.078          | 63.876           | 0.000            | 27.054           | 0.268            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.723            | 7.235              | 4.392<br>5.286     |
| 276 11.10              |        |                | -11.100<br>-11.150 | -36.581            | 11.360             | 0.091          | 186.790            | 0.76   | 6        | 6              | 3      | 3      | 3      | +     | 114.551            | 2.117          | 1.756          | 0.362          | 11.588         | 0.771          | 3.980            | 3.069            | 3.515            | 1.782            | 4.712              | 1.100          | 8.270              | 0.541            | 0.662            | 1.595              | 0.465            | 2.776              | 3.068          | 63.192           | 0.000            | 27.769           | 0.197            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.767            | 7.674              | 4.712              |
| 278 11.20<br>279 11.25 | 0 36   | 5.745          | -11.200<br>-11.250 | -36.745<br>-36.909 | 11.259<br>14.283   | 0.122          | 192.130            | 0.68   | 6        | 6              | 3      | 3      | 3      | -     | 114.551            | 2.127          | 1.760          | 0.367          | 11.752         |                | 4.315<br>5.473   | 3.324<br>4.211   | 3.805<br>4.263   | 1.831<br>2.146   | 5.192<br>6.889     | 1.336          | 9.134              | 0.500            | 0.617            | 1.990<br>4.169     | 0.504            | 2.991<br>5.170     | 3.066<br>2.863 | 63.028<br>49.715 | 0.000            | 27.715           | 0.171            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 0.831<br>1.053   | 8.309<br>10.527    | 5.192<br>6.889     |
| 280 11.30              |        |                | -11.300<br>-11.350 | -37.073<br>-37.237 | 15.854             | 0.106          | 175.190            | 0.66   | 9        | 5              | 4      | 4      | 3      | 1.    | 114.551            | 2.145          | 1.768          | 0.377          | 12.081         | 0.768          | 6.075            | 4.668            | 4.588            | 2.342            | 7.755              | 0.773          | 13.709             | 0.321            | 0.372            | 4.874<br>7.733     | 0.995            | 5.875              | 2.808          | 46.477<br>38.363 | 0.000            | 29.338           | 0.114            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.167            | 11.671             | 7.755              |
| 282 11.40              | 0 37   | .401           | -11.400            | -37.401            | 20.947             | 0.138          | 198.140            | 0.65   | 9        | <del>;</del>   | 4      | 4      | 3      | 4     | 117.733            | 2.165          | 1.777          | 0.387          | 12.409         | 0.767          | 6.689            | 5.127            | 5.645            | 2.974            | 10.572             | 0.735          | 18.783             | 0.277            | 0.309            | 7.308              | 1.414            | 8.309              | 2.676          | 39.199           | 0.000            | 30.657           | 0.080            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.538            | 15.382             | 10.572             |
| 283 11.45<br>284 11.50 | 0 37   | 7.565          | -11.450<br>-11.500 | -37.565<br>-37.729 | 19.561<br>21.470   | 0.190<br>0.185 | 227.550            | 0.97   | 2        | 6              | 4      | 4      | 3      | 4     | 114.551            | 2.174          | 1.782          | 0.392<br>0.397 | 12.573         | 0.766          | 7.496<br>8.227   | 6.291            | 5.577            | 2.905<br>3.104   | 9.762<br>10.803    | 1.093<br>0.959 | 17.387<br>19.288   | 0.343            | 0.386            | 5.993<br>7.355     | 1.193<br>1.429   | 6.995<br>8.356     | 2.781          | 44.932<br>41.351 | 0.000            | 30.324<br>30.763 | 0.074            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.435            | 14.346<br>15.727   | 9.762              |
| 285 11.55              |        | 7.893          | -11.550<br>-11.600 | -37.893<br>-38.057 | 16.311             | 0.124          | 142.660            | 0.76   | 90<br>11 | 6              | 4      | 4      | 3      | 4     | 114.551            | 2.193          | 1.790          | 0.403          | 12.901         | 0.764          | 6.250            | 4.773<br>4.649   | 4.761            | 2.404            | 7.889              | 0.878          | 14.119             | 0.248            | 0.287            | 5.625              | 1.136            | 6.626<br>8.139     | 2.824          | 47.384           | 0.000            | 29.444           | 0.093            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.193            | 11.934             | 7.889              |
| 286 11.65              |        | 3.221          | -11.650            | -38.221            | 15.759             | 0.107          | 176.120            | 0.53   | 19       | 6              | 4      | 4      | 3      |       | 114.551            | 2.212          | 1.799          | 0.413          | 13.230         |                | 6.039            | 4.601            | 4.503            | 2.247            | 7.533              | 0.627          | 13.548             | 0.323            | 0.375            | 4.705              | 0.983            | 5.706              | 2.786          | 45.163           | 0.000            | 29.269           | 0.130            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.150            | 11.502             | 7.533              |
| 288 11.70              | 0 38   | 3.549          | -11.700<br>-11.750 | -38.549            | 15.361             | 0.073          | 200.860            | 0.47   | 2        | 7              | 4      | 4      | 3      | ++    | 117.733            | 2.221          | 1.803          | 0.423          | 13.558         | 0.760          | 5.886<br>6.171   | 4.690            | 4.376<br>5.220   | 2.168            | 9.459              | 0.556          | 13.141             | 0.354            | 0.414            | 6.222              | 1.251            | 7.224              | 2.780          | 44.853<br>39.441 | 0.000            | 29.141<br>30.231 | 0.147<br>0.110   | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.120            | 11.198             | 9.459              |
| 290 11.80              | 0 38   | 3.713          | -11.800<br>-11.850 | -38.713<br>-38.877 | 20.218             | 0.107          | 174.280            | 0.52   | 9        | 7              | 4      | 4      | 3      | 1 4   | 117.733            | 2.241<br>2.250 | 1.812          | 0.428          | 13.722         | 0.759          | 6.456<br>8.025   | 4.901<br>6.084   | 5.419            | 2.777            | 9.924              | 0.595          | 17.978             | 0.248            | 0.279            | 7.156<br>7.856     | 1.416            | 8.157<br>8.857     | 2.666          | 38.664<br>42.301 | 0.000            | 30.441           | 0.096            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.470            | 14.702             | 9.924              |
| 292 11.90              | 0 39   | 0.042          | -11.900            | -39.042            | 26.893             | 0.313          | 126.960            | 1.16   | 4        | <del>,</del>   | 4      | 5      | 4      | 4     | 117.733            | 2.260          | 1.821          | 0.438          | 14.050         | 0.757          | 8.588            | 6.503            | 7.290            | 3.829            | 13.532             | 1.2/1          | 24.634             | 0.131            | 0.143            | 11.595             | 2.197            | 12.596             | 2.687          | 39.790           | 0.000            | 31.792           | 0.000            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 1.951            | 19.508             | 13.532             |
| 293 11.95              |        | 9.370          | -11.950<br>-12.000 | -39.370            | 31.107             | 0.330          | 98.910<br>64.800   | 0.97   | 9        | <del>/  </del> | 5      | 7      | 5      | 5     | 117./33            | 2.2/9          | 1.830          | 0.449          | 14.379         |                | 9.934            | 7.513<br>8.132   | 8.034            | 4.299<br>6.069   | 15.802             | 1.050          | 31.436             | 0.085            | 0.092            | 16.322             | 3.036            | 17.322             | 2.011          | 27.418           | 0.000            | 32.861           | -0.015           | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.440            | 24.397             | 15.802<br>24.397   |
| 295 12.05<br>296 12.10 |        |                | -12.050<br>-12.100 | -39.534<br>-39.698 | 33.695<br>30.057   | 0.565<br>0.555 | 48.930<br>66.810   | 1.67   | 7        | 6              | 4      | 7      | 5      | 4     | 114.551            | 2.289          | 1.835          | 0.454          | 14.543         | 0.754          | 12.912<br>11.518 | 9.741<br>8.679   | 9.094<br>8.423   | 4.825<br>4.417   | 17.126<br>15.102   | 1.799          | 31.408             | 0.032            | 0.034            | 16.540             | 3.082<br>2.680   | 17.540             | 2.679          | 39.346<br>43.158 | 0.000            | 32.852<br>32.301 | -0.061<br>-0.053 | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.435            | 24.353<br>21.699   | 17.126<br>15.102   |
| 297 12.15              | 0 39   | 9.862          | -12.150<br>-12.200 | -39.862            | 34.072             | 0.010          | 56.340             | 0.02   | 9        | 8              | 0      | 7      | 5      | 0     | 120.915            | 2.308          | 1.844          | 0.464          | 14.871         |                | 8.160<br>7.00k   | 6.142            | 7.062            | 5.315            | 17.238             | 0.031          | 31.765             | 0.038            | 0.041            | 16.535             | 3.096            | 17.535             | 2.099          | 5.000            | 0.000            | 32.894           | 0.252            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.457            | 24.566             | 24.566             |
| 12.20                  | ~   4U | .020           | z.z0U              | ~0.026             | 33.36/             | 0.010          | 47.560             | 0.03   | ~        | ,              | v      |        |        | U     | 120.915            | 2.316          | 1.048          | 0.409          | 10.035         | 0.752          | 7.996            | 0.010            | 0.892            | U.Z10            | 10.617             | 0.032          | 31.070             | 0.030            | 0.033            | 10.207             | 3.000            | 17.207             | 2.10/          | 0.000            | 0.000            | 32.791           | 0.201            | 0.000          | 0.000              | 0.000          | 0.000 | 0.000          | 2.404            | £4.04 I            |                    |

# NON-FEDERAL SPONSOR SUPPORT LETTER AND SELF-CERTIFICATION

# James River Shoreline, Newport News, VA Continuing Authority Program, Section 14 Emergency Streambank & Shoreline Protection

**APPENDIX D** 

**AUGUST 2021** 



# City of Newport News

Department of Engineering 2400 Washington Avenue Newport News, Virginia 23607

(757) 933-2311

Fax 926-8300

May 3, 2021

Colonel Patrick Kinsman, PE Commander, Norfolk District U.S. Army Corps of Engineers 803 Front Street Norfolk, VA 23510

Re:

Draft Integrated Feasibility Report James River Shoreline Stabilization Newport News, VA

#### Dear Colonel Kinsman:

This letter is to offer our support for the submittal of the Draft Integrated Feasibility Report and Environmental Assessment for stabilization of approximately 600 linear feet of the James River shoreline in Newport News from 9304 River Rd to North Ave. The City concurs with the recommended Alternative #1 which involves installing a stone sill and providing a more stable vegetated slope.

VMRC commented that a living shoreline option should be evaluated. The USACE did evaluate a living shoreline alternative and determined that it was not feasible due to site constraints at the top of slope and the need to minimize impacts to State-owned submerged land to the extent practicable. The USACE will continue to engage with VMRC as the design advances.

The City of Newport News intends to continue to serve as the Non-Federal sponsor, should federal funds be appropriated to preform work described in the recommended plan. These non-federal cost sharing funds would only be an obligation should we elect to execute an agreement with the USACE. As such, we understand that this letter is not a contractually binding agreement and is not a funding obligation of the City of Newport News.

For additional comments or questions, please contact me at (757)926-8655 or anglekk@nnva.gov.

Sincerely.

Kathie Angle, PE, CFM

**Engineering Supervisor-Stormwater** 

City of Newport News

Copy: Project Manager, J.C. Morgado Jofre

Supervising Engineer, K. Angle

# NON-FEDERAL SPONSOR'S SELF-CERTIFICATION OF FINANCIAL CAPABILITY FOR DECISION DOCUMENTS

| I,Susan Goodwin, do hereby certify that I am the <b>Director of Finance of the</b>              |
|---|
| City of Newport News (the "Non-Federal Sponsor"); that I am aware of the financial obligations  |
| of the Non-Federal Sponsor for the James River Shoreline Emergency Streambank and               |
| Shoreline Protection, James River Shoreline, Newport News, Virginia; and that the Non-          |
| Federal Sponsor will have the financial capability to satisfy the Non-Federal Sponsor's         |
| obligations for that project. I understand that the Government's acceptance of this self-       |
| certification shall not be construed as obligating either the Government or the City of Newport |
| News to implement a project.  |
| IN WITNESS WHEREOF, I have made and executed this certification this                            |
| BY: Sugar for dur TITLE: Director of Finance  |

DATE: 5/4/21

# NORFOLK DISTRICT LEGAL CERTIFICATION

# James River Shoreline, Newport News, VA Continuing Authority Program, Section 14 Emergency Streambank & Shoreline Protection

# **APPENDIX E**

**AUGUST 2021** 



# **CERTIFICATION OF LEGAL REVIEW**

The Continuing Authorities Program Section 14, Emergency Streambank and Shoreline Protection, James River Shoreline, Newport News, Virginia Draft Integrated Feasibility Report/Environmental Assessment has been reviewed by the Office of Counsel, Norfolk District, and has been determined to be legally sufficient.

Date: 29 April 2021

Thomas M. Emerick District Counsel