Rec'd 4/8/86 with ltr. dated 9/3/86 to JPohle
D1021

DATA MANAGEMENT REPORT UPDATE

Basalt Waste Isolation Project
Subtask 2.2
Data Inventory and Management

Prepared by

Terra Therma Inc.

for

Nuclear Waste Consultants

TERRA THERMA, INC.

WATER CONSULTANTS AND ENGINEERS

September, 1986

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September 3, 1986

Nuclear Waste Consultants, Inc.
8341 So. Sangre de Cristo Road
Littleton, Colorado 80127

Attention: Mr. Mark Logsdon, Project Manager

Re: Data Management Report, Subtask 2.2 (Update)

Dear Mr. Logsdon:

This letter report with attachments serves as our semi-annual update of the Subtask 2.2 Data Inventory and Management task, as required by our subcontract with Nuclear Waste Consultants (NWC).

BACKGROUND

As a subcontractor to NWC for NRC Project RS-NMS-85-009 entitled "Technical Assistance in Hydrology - Project B - Analysis", Terra Therma, Inc. (TTi) is responsible for review of hydrogeologic investigations of the BWIP site. Terra Therma is required by contract to submit semi-annual updates in the form of a letter report describing progress in establishing a hydrogeologic data base, in addition to providing an inventory of data compiled. This letter report fulfills those contractual requirements.

INTRODUCTION

The guiding basis of the various hydrogeologic data bases established and maintained by Terra Therma is that the data bases be responsive to data needs

of the team. Analyses performed under the various subtasks are not only dependent upon the data bases, but they also direct the data bases. All data used in the analyses must reside on the data bases, yet data requirements of any analysis can redirect or alter the data base. This results in the directed growth of the data bases, while maintaining documentation of all data used in other subtasks.

Informal comments from the NRC, provided in April, 1986, have been addressed in this update. The headings used in the data bases have either been clarified or a legend has been provided. Because of the large amount of data for BWIP, many of the data bases require additional pages, both horizontally and vertically. We have attempted to clarify this situation by using page numbers in the data base titles. The numbers indicate vertical pages and the letters indicate horizontal pages.

The Terra Therma team has evaluated the suggestion that a data base be compiled of well stratigraphy, completions, geophysical logs, etc. for all BWIP wells for eventual use in cross-sections and fence diagrams. With respect to the BWIP site geology and cross-sections that have been prepared by BWIP, it is our opinion that a data base for this purpose is not necessary. The stratigraphic data which is available would not permit any more detail in cross-sections than are already available. The stratigraphy appears to be very consistent on a RRL scale, whereas the smaller structures are so variable that correlation across the RRL would not be possible with the present data. However, having available summary sheets for each well with the stratigraphy

and well completion information might be useful as a reference during discussions and analyses. We are in the process of developing a data base with this level of detail, however, much of this information may have to be collected during the proposed Data Review at BWIP.

QUALITY ASSURANCE

The TTi team has submitted to NWC a QA Task Plan for the 2.2 Subtask. However, because of the timing of the NRC approved QA Manual, QA procedures have not been fully implemented at this time. The TTi team is in the process of a QA review of the 2.2 data bases. Should this result in any significant changes in the data bases, updates will be provided as they become available.

DATA BASE DESCRIPTION

Six computer-based data bases have been maintained and updated by TTi. They are listed below:

1. Bibliography
2. Geologic
3. Hydraulic - single hole tests
4. Hydraulic - multiple hole tests
5. Water Quality
6. Water Level Data

The bibliographic data base contains approximately 543 documents, including documents prepared by NWC and its subcontractors (Attachment A). The data base has proven to be valuable in document searches during various subtask analyses.

The other data bases have either been updated or expanded, depending upon available data or data needs. The full data inventories to this date are provided in Attachment B.

DATA BASE USE

Examples of possible graphical representations using data from various data bases are provided in Attachments C and D. The graphs in Attachment C were developed from the water level data base and are being used in preparation of further Mini-Report analyses of aquifer responses to drilling. Attachment D is a graphical presentation of location data which reside in the database. Coordinates provided by BWIP for each well have been used to produce well plots at any desired scale, several examples of which are included. All wells for which we have coordinates have been plotted in these examples, although only a few are labeled for demonstration purposes. Additional information, such as water surface elevation or hydraulic conductivity, can be added to the plots and then contoured. Wells to be plotted can be selected on some basis, such as monitoring interval.

SUMMARY

As the Terra Therma team prepares for the site characterization reviews, additional data will be added to the data base system. The data bases will continue to evolve as the needs of the team change in response to our review and analytical requirements.

If you have any questions or comments, please do not hesitate to contact us.

Sincerely,
TERRA THERMA, INC.

Michael Galloway
Project Manager

Attachments as noted

ATTACHMENT A

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

, , PARTS - TABLES, FIGURES, MAPS FROM DOC. - A.B. FILE 823-2106 (82/11)
RHO-BWI-ST-14 NWC #: 1037

, , ISSUES FOR SIA DEVELOPMENT RE: GROUNDWATER FLOW, A.B. FILE - 823-2106
(82/11)
NWC #: 1040

, , BOREHOLE INFORMATION AND DATA (84/01)
NWC #: 1082

, , THIRD QUARTERLY PROGRESS REPORT, PROJECT FIN NO. B8956, STOCHASTIC ANALYSIS
OF SOLUTE TRANSPORT IN UNSATURATED SOILS (84/07)
NWC #: 1095

, , SKAGIT/HANFORD NUCLEAR PROJECT
SITE CHARACTERIZATION REPORT FOR THE BWIP (DRAFT), CHAPTER 13 (82/08)
NWC #: 1308

, , DRAFT AGENDA FOR JANUARY 12,1982 MEETING (81/12)
NWC #: 1317

, , NEPTUNIUM AND AMERICIUM SPECIATION IN SELECTED BASALT, GRANITE, SHALE, AND
TUFF GROUND WATERS (83/07)
PP. 271-273 NWC #: 1384

, , CODE OF FEDERAL REGULATIONS
TITLE 10
ENERGY
PARTS 0 TO 199
(2 COPIES) (84/01)
NWC #: 1402

, , NUCLEAR WASTE POLICY ACT OF 1982
GENERAL GUIDELINES FOR THE RECOMMENDATION OF SITES FOR
THE NUCLEAR WASTE REPOSITORIES
FINAL SITING GUIDELINES PART 3 (84/12)
NWC #: 1521

, , QA COMMENTS ON BWIP ES DOCUMENTS (85/11)
NWC #: 1546

, , UNCONFINED AQUIFER MEASUREMENTS FOR THE HANFORD SITE, DECEMBER 1984
(2 COPIES) (84/12)
NWC #: 1673

, , PROPOSED RULES
FEDERAL REGISTER
VOL. 51, NO. 118
THURSDAY, JUNE 18, 1986 (86/06)
NWC #: 1699

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

AHN, J., NUCLIDE MIGRATION THROUGH A PLANAR FISSURE WITH MATRIX DIFFUSION (85/04)
LBL-19429 NWC #: 1745

ALTENHOFEN, M.K., WASTE PACKAGE HEAT-TRANSFER ANALYSIS: MODEL DEVELOPMENT AND TEMPERATURE ESTIMATES FOR WASTE PACKAGES IN A REPOSITORY LOCATED IN BASALT (81/10)
RHO-BWI-ST-18 NWC #: 1158

AMES, L.L., HIGH-TEMPERATURE DETERMINATION OF RADIONUCLIDE DISTRIBUTION COEFFICIENTS FOR COLUMBIA RIVER BASALTS (80/12)
RHO-BWI-C-111, PNL-3250 NWC #: 1163

APPS, J., GEOHYDROLOGICAL STUDIES FOR NUCLEAR WASTE ISOLATION AT THE HANFORD RESERVATION, VOLUME I: EXECUTIVE SUMMARY, VOLUME II: FINAL REPORT (79/07)
LBL-8764 2 VOL. NWC #: 1186

APTED, M.J., GEOCHEMICAL CHARACTERIZATION OF BASALT/GROUNDWATER INTERACTION FOR A NUCLEAR WASTE REPOSITORY AT THE HANFORD SITE, WASHINGTON (82/10)
RHO-BW-SA-215AP NWC #: 1132

APTED, M.J., LABORATORY AND FIELD DATA NEEDS FOR SITE-SPECIFIC REPOSITORY MODELING (83/11)
RHO-BW-SA-321P NWC #: 1142

ARNETT, R.C., RADIONUCLIDE RELEASE SCENARIO SELECTION PROCESS FOR A POSSIBLE REPOSITORY IN BASALT (80/09)
RHO-BWI-SA-83 NWC #: 1167

ARNETT, R.C., PASCO BASIN HYDROLOGIC MODELING AND FAR-FIELD RADIONUCLIDE MIGRATION POTENTIAL (2 COPIES) (81/06)
RHO-BWI-LD-44 NWC #: 1172

ARNETT, R.C., PRELIMINARY HYDROLOGIC RELEASE SCENARIOS FOR A CANDIDATE REPOSITORY SITE IN THE COLUMBIA RIVER BASALTS (80/11)
RHO-BWI-ST-12 NWC #: 1216

ARNETT, R.C., CALCULATION OF GROUNDWATER TRAVEL TIME: A COMPARISON OF SIMPLE, HAND METHODS WITH MORE COMPLEX DETERMINISTIC AND STOCHASTIC METHODS (84/12)
SD-BWI-TA-014 NWC #: 1256

ASME, , QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR NUCLEAR FACILITIES (83/07)
ANSI/ASME NQA-1-1983 EDITION NWC #: 1588

BACA, R.G., PERFORMANCE ASSESSMENT FOR A REPOSITORY IN BASALT: A SUMMARY OF PRELIMINARY RESULTS (82/09)
RHO-BW-SA-248P NWC #: 1130

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

BACA, R.G., PERFORMANCE ANALYSIS OF A NUCLEAR WASTE REPOSITORY IN A BASALT GEOLOGY (82/11)
RHO-BW-SA-222AP NWC #: 1131

BACA, R.G., MODELING FLUID FLOW IN FRACTURED-POROUS ROCK MASSES BY FINITE-ELEMENT TECHNIQUES (83/04)
RHO-BW-SA-297P NWC #: 1143

BACA, R.G., ANALYSIS OF HOST ROCK PERFORMANCE FOR A NUCLEAR WASTE REPOSITORY USING COUPLED FLOW AND TRANSPORT MODELS (81/11)
RHO-BWI-SA-140 NWC #: 1162

BACA, R.G., NUMERICAL MODELING OF FLOW AND TRANSPORT PROCESSES IN A FRACTURED-POROUS ROCK SYSTEM (81/06)
RHO-BWI-SA-113 NWC #: 1204

BACA, R.G., COUPLED GEOMECHANICAL/HYDROLOGICAL MODELING: AN OVERVIEW OF BASALT WASTE ISOLATION PROJECT STUDIES (81/01)
RHO-BWI-SA-82 NWC #: 1215

BACA, R.G., ANALYSIS OF FRACTURE FLOW AND TRANSPORT IN THE NEAR-FIELD OF A NUCLEAR WASTE REPOSITORY (81/01)
RHO-BWI-SA-81 NWC #: 1217

BAILEY, C.E., PARAMETRIC STUDY OF GEOHYDROLOGIC PERFORMANCE CHARACTERISTICS FOR GEOLOGIC WASTE REPOSITORIES (80/11)
DP-1555 NWC #: 1408

BARNEY, G.S., RADIONUCLIDE SORPTION AND DESORPTION MECHANISMS IN INTERBED-GROUNDWATER SYSTEMS OF THE COLUMBIA RIVER BASALTS (82/10)
RHO-BW-SA-276P NWC #: 1125

BARNEY, G.S., IDENTIFICATION OF KEY RADIONUCLIDES IN A NUCLEAR WASTE REPOSITORY IN BASALT (80/05)
RHO-BWI-ST-9 NWC #: 1193

BELA, J., ANNOTATED BIBLIOGRAPHY OF THE GEOLOGY OF THE COLUMBIA PLATEAU (COLUMBIA RIVER BASALT) AND ADJACENT AREAS OF OREGON (79/01)
RHO-BWI-C-30 NWC #: 1605

BELL, N.M., A PRELIMINARY EVALUATION OF WATER RESOURCE DEVELOPMENT AND POTENTIAL WITHIN THE PASCO BASIN (80/11)
RHO-BWI-LD-33 NWC #: 1154

BELL, P., SCIENTIFIC TIMESHARING COURSE T5
INTRODUCTION TO THE CDC CYBER-176 COMPUTER SYSTEM AT THE IDAHO NATIONAL ENGINEERING LAB
PARTS ONE AND TWO (85/09)
NWC #: 1651

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

BENTLEY, R.D., STRATIGRAPHY OF THE YAKIMA BASALTS AND STRUCTURAL EVOLUTION OF THE YAKIMA RIDGES IN THE WESTERN COLUMBIA PLATEAU (76/01)
NWC #: 1151

BERGSTROM, K.A., PRELIMINARY INTERPRETATION OF THE TECTONIC STABILITY OF THE REFERENCE REPOSITORY LOCATION, COLD CREEK SYNCLINE, HANFORD SITE (83/03)
RHO-BW-ST-19 P NWC #: 1597

BERNREUTER, D.L., SEISMIC HAZARD CHARACTERIZATION OF THE EASTERN UNITED STATES: METHODOLOGY AND PRELIMINARY RESULTS FOR TEN SITES (PRELIMINARY) (84/02)
NWC #: 1501

BIERSCHENK, W.H., AQUIFER CHARACTERISTICS AND GROUND-WATER MOVEMENT AT HANFORD (59/06)
HW-60601 NWC #: 1601

BJORNSTAD, B.N., SEDIMENTOLOGY AND DEPOSITIONAL ENVIRONMENT OF THE TOUCHET BEDS, WALLA WALLA RIVER BASIN, WASHINGTON (80/06)
RHO-BWI-SA-44 NWC #: 1210

BLACK, R.F., CLASTIC DIKES OF THE PASCO BASIN, SOUTHEASTERN WASHINGTON (79/01)
RHO-BWI-C-64 NWC #: 1197

BMI, , PREFERRED USAGE GUIDE
NWTS-RELATED WORDS AND ABBREVIATIONS (83/01)
NWC #: 1509

BROOKINS, D.G., RETENTION OF TRANSURANIC AND ACTINIDE ELEMENTS AND BISMUTH AT THE
OKLO NATURAL REACTOR, GABON: APPLICATION OF Eh/pH DIAGRAMS (78/)
PP. 309-323 NWC #: 1379

BROOKINS, D.G., Eh/pH DIAGRAMS FOR ELEMENTS FROM Z=40 TO Z=52: APPLICATION TO THE
OKLO NATURAL RECTOR, GABON (78/)
PP. 325-342 NWC #: 1380

BROOKS, D.J., VISIT TO THE BASALT WASTE ISOLATION PROJECT (BWIP)
HANFORD,WASHINGTON (2 COPIES) (81/11)
NWC #: 1029

BROWN, A., DRAFT TECHNICAL LETTER REPORT: LIMITATIONS OF PACKER TESTING FOR HEAD EVALUATION IN HANFORD BASALTS (82/10)
823-1033 D243 NWC #: 1004

BROWN, A., DRAFT TECHNICAL LETTER REPORT: LIMITATIONS OF USING PACKER TECHNOLOGY HEAD EVALUATION IN HANFORD BASALTS (82/10)
823-1033 D223 NWC #: 1010

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

BROWN, A., FINAL DRAFT, APPENDIX G, LIMITATIONS OF PACKER TESTING FOR HEAD EVALUATION IN HANFORD BASALTS (2 COPIES) (82/12)
NWC #: 1018

BROWN, A., MEMORANDUM TO NRC RE: SCENARIOS FOR GROUNDWATER FLOW MODELING AT BWIP (82/12)
NWC #: 1021

BROWN, A., LETTER TO NRC RE: VISIT TO RHO (82/02)
813-1176A NWC #: 1023

BROWN, A., NOTES RE: BWIP POST WORKSHOP HYDROLOGY MEETINGS SEPTMBER 21-22,1985 AND JULY 20-27,1985 (82/09)
823-1033 NWC #: 1024

BROWN, A., LBL'S REPORT REVIEW: "SELECTED HYDROLOGICAL AND GEOCHEMICAL ISSUES IN SITE CHARACTERIZATION FOR NUCLEAR WASTE DISPOSAL: FLOOD BASALTS AT THE HANFORD RESERVATION" (81/11)
813-1176A D/240 NWC #: 1027

BROWN, A., MEMORANDUM RE: DETAILED COMMENTS ON CHAPTERS 5 AND 12 OF THE BWIP SCR - LETTER #23 (83/01)
823-1033 NWC #: 1041

BROWN, A., BOREHOLE INFORMATION AND NOTES FOR BWIP, BWIP FILE 1984 (84/01)
NWC #: 1042

BROWN, A., PEER REVIEW OF NRC REVIEW OF BWIP ENVIRONMENTAL ASSESSMENT (85/03)
NWC #: 1067

BROWN, A., TRIP REPORT: VISIT TO HANFORD FOR EXPLORATORY SHAFT TEST PLAN WORKSHOP - NOVEMBER 29, 1983 - DECEMBER 1, 1983 (83/12)
NWC #: 1071

BROWN, A., MEMORANDUM RE: SITE VISIT REPORT: BWIP VISIT OF JULY 11-15, 1983 (DRAFT) (83/07)
NWC #: 1106

BROWN, A., SCENARIOS (82/12)
NUREG-0960 (DRAFT) NWC #: 1121

BROWN, A., NOTES: SITING REQUIREMENTS (82/10)
NWC #: 1318

BROWN, A., MEMO (83/12)
NWC #: 1523

BROWN, A., DISCUSSIONS RE: EXPLORATORY SHAFT MATERIAL IN NWC-1546 (85/11)
NWC #: 1546

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AUGUST 30, 1986

BROWN, A., BWIP DOCUMENT REVIEW - SD-BWI-TP-007: EXPLORATORY SHAFT TEST PLAN (86/01)
SD-BWI-TP-007 - REVIEW NWC #: 1574

BROWN, A., TRIP REPORT: ATTENDANCE AT WORKSHOP ON "VALIDATION OF MATHEMATICAL MODELS FOR WASTE REPOSITORY PERFORMANCE ASSESSMENT - CONFIDENCE BUILDING THROUGH SYNTHESIS OF..."
JANUARY 27-29, 1986 (86/02)
009/5/MEETINGS.001 NWC #: 1581

BROWN, A., LETTER TO WRIGHT: VISIT TO ROCKWELL HANFORD OPERATIONS(82/01) (82/02)
813-1176A NWC #: 1591

BROWN, A., MEETING NOTES FROM A. BROWN INCL. ST-14, TC-016, DP-042 (83/11)
SD-BWI-TC-016
-DP-042
-ST-14 NWC #: 1665

BROWN, J., EVALUATION OF BASALT WASTE ISOLATION GEOLOGIC STUDIES HANFORD SITE, WASHINGTON (2 COPIES) (82/10)
NWC #: 1005

BROWN, R.E., A REVIEW OF WATER-WELL DATA FROM THE UNCONFINED AQUIFER IN THE EASTERN AND SOUTHERN PARTS OF THE PASCO BASIN (79/09)
RHO-BWI-C-56 NWC #: 1152

BROWN, R.E., THE SURFACE OF THE BASALT SERIES IN THE PASCO BASIN, WASHINGTON (59/04)
NWC #: 1182

BROWN, R.E., DESIRABLE NEW GEOLOGIC RESEARCH IN SUPPORT OF RADIOACTIVE WASTE DISPOSAL AS INDICATED BY HANFORD EXPERIENCE (59/)
NWC #: 1185

BROWN, R.E., REPORTED FAULTING IN THE PASCO BASIN (68/03)
BNWL-SA-1704 NWC #: 1232

BROWN, R.E., SOME SUGGESTED RATES OF DEFORMATION OF THE BASALTS IN THE PASCO BASIN, AND THEIR IMPLICATIONS (70/01)
NWC #: 1235

BROWN, W.R., HYDROLOGIC TEST RESULTS FOR THE UPPER COHASSETT FLOW INTERIOR AT BOREHOLE DC-16A HANFORD SITE, WASHINGTON (84/02)
SD-BWI-TI-166 NWC #: 1279

BRYCE, R.W., WATER-LEVEL, DOWNHOLE PRESSURE, AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19, DC-20 AND DC-22
MARCH 1 THROUGH MARCH 31, 1985 (85/06)
SD-BWI-DP-066 REV 0 NWC #: 1049

NUCLEAR WASTE CONSULTANTS
BWIP LIBRARY INVENTORY
AUGUST 30, 1986

BRYCE, R.W., DEPTH-TO-WATER, DOWNHOLE PRESSURE AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19, DC-20 AND DC-22
JUNE 1 THROUGH JUNE 30, 1984 (2 COPIES) (84/08)
SD-BWI-DP-049 NWC #: 1274

BRYCE, R.W., WATER-LEVEL, DOWNHOLE PRESSURE AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19,DC-20 AND DC-22
JULY 1 THROUGH JULY 31, 1984 (2 COPIES) (84/09)
SD-BWI-DP-050 NWC #: 1275

BRYCE, R.W., WATER-LEVEL, DOWNHOLE PRESSURE AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19, DC-20 AND DC-22
AUGUST 1 THROUGH AUGUST 31, 1984 (2 COPIES) (84/10)
SD-BWI-DP-052 NWC #: 1276

BRYCE, R.W., WATER-LEVEL DATA COLLECTED FROM PIEZOMETER CLUSTERS DC-19, DC-20 AND DC-22
APRIL 1 THROUGH APRIL 30, 1984 (2 COPIES) (85/01)
SD-BWI-DP-045 NWC #: 1277

BRYCE, R.W., WATER-LEVEL, DOWNHOLE PRESSURE AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19, DC-20, AND DC-22, FEBRUARY 1 THROUGH FEBRUARY 28, 1985 (85/04)
SD-BWI-DP-063 NWC #: 1603

BRYCE, R.W., WATER-LEVEL, DOWNHOLE PRESSURE AND ATMOSPHERIC PRESSURE MEASUREMENTS FROM PIEZOMETER CLUSTERS DC-19, DC-20, AND DC-22, JANUARY 1 THROUGH JANUARY 31, 1985 (85/05)
SD-BWI-DP-062 NWC #: 1604

CAGGIANO, J.A., DEVELOPMENT OF FAULT PARAMETERS FOR USE IN RISK ASSESSMENT MODELING IN THE PASCO BASIN, COLUMBIA PLATEAU, SOUTH-CENTRAL WASHINTON--A PRELIMINARY STUDY (82/03)
RHO-BW-SA-185 P NWC #: 1228

CAMP, V.E., DESCRIPTIVE SUMMARY OF THE GRANDE RONDE BASALT TYPE SECTION, COLUMBIA RIVER BASALT GROUP (78/10)
RHO-BWI-LD-15 NWC #: 1190

CAMPBELL, J.E., RISK METHODOLOGY FOR GEOLOGIC DISPOSAL OF RADIOACTIVE WASTE: THE NWFT/DVM COMPUTER CODE USERS MANUAL
(3 COPIES) (81/11)
NUREG/CR-2081
SAND81-0886 NWC #: 1680

CAMPBELL, N.P., QUATERNARY AND HOLOCENE FAULTING, TOPPENISH RIDGE, SOUTH-CENTRAL WASHINGTON PRELIMINARY INVESTIGATION (79/11)
RHO-BWI-SA-38-A NWC #: 1213

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CANNON, J.A., FINAL ENVIRONMENTAL STANDARDS FOR SPENT NUCLEAR FUEL, HIGH-LEVEL AND TRANSURANIC RADIOACTIVE WASTES (40 CFR PART 191)
(2 COPIES) (84/04)
NWC #: 1342

CARNAHAN, C.L., SELECTED HYDROLOGIC AND GEOCHEMICAL ISSUES IN SITE CHARACTERIZATION FOR NUCLEAR WASTE DISPOSAL: FLOOD BASALTS AT THE HANFORD RESERVATION (4 COPIES - 2 DRAFT) (81/09)
NUREG/CR-2983, LBL-15029 NWC #: 1309

CARPENTER, D.W., SEISMIC EFFECTS ON WASTE REPOSITORIES
(ATT. TO LETTER TO M. LOGSDON) (84/03)
NWC #: 1499

CARPENTER, D.W., THE EFFECTS OF EARTHQUAKES ON UNDERGROUND STRUCTURES
(ATT. TO LETTER TO M. LOGSDON) (84/03)
NWC #: 1500

CHANG, W.Y., EVALUATION OF REGULATORY GUIDES POTENTIALLY USEFUL TO GEOLOGIC REPOSITORY DEVELOPMENT (86/01)
BMI/ONWI-588 NWC #: 1618

CHAPMAN, C.C., COMPARISON OF THE TROTARY CALCINER-METALLIC MELTER AND THE SLURRY-FED CERAMIC MELTER TECHNOLOGIES FOR VITRIFYING WEST VALLEY HIGH-LEVEL WASTES (83/02)
DOE/NE/44139-6(DE86010532) NWC #: 1718

CHERRY, J., DRAFT TECHNICAL LETTER REPORT: HYDROCHEMISTRY FOR FLOW SYSTEM CHARACTERIZATION (82/10)
823-1033 D223 NWC #: 1009

CHERRY, J., FINAL DRAFT APPENDIX F: HYDROCHEMISTRY FOR FLOW SYSTEM CHARACTERIZATION IN HANFORD BASALTS (82/10)
NWC #: 1016

CHERRY, J., FINAL DRAFT, APPENDIX F: REVIEW OF HYDROCHEMICAL CHARACTERIZATION RELATED TO FLOW SYSTEM INTERPRETATION IN HANFORD BASALTS (82/12)
NWC #: 1017

CHUNG, D.H., LETTER TO M. LOGSDON RE: SEISMIC HAZARD ANALYSIS FOR CRITICAL FACILITIES INCLUDING ENCLOSURES LISTED IN REC.#228-231 (84/03)
NWC #: 1497

CHUNG, D.H., SEISMOLOGICAL PROBLEMS ASSOCIATED WITH REPOSITORIES
(ATT. TO LETTER TO M. LOGSDON) (84/03)
NWC #: 1498

CLARK, J.E., AQUIFER TEST MONITORING BY ELECTRICAL PRESSURE TRANSDUCER IN COMPARISON WITH THE HAND-HELD TAPE METHOD (83/01)
ONWI-337 NWC #: 1410

NUCLEAR WASTE CONSULTANTS
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CLAWSON, T.S., DRILLING HISTORY OF THE EXTENSION BY CORING OF BOREHOLE DC-7 (81/01)
RHO-BWI-LD-37 NWC #: 1192

CLEVELAND, J.M., PLUTONIUM SPECIATION IN SELECTED BASALT, GRANITE, SHALE, AND TUFF
GROUNDWATERS (83/09)
PP. 298-310 NWC #: 1382

CLIFTON, P.M., GROUNDWATER TRAVEL TIME UNCERTAINTY ANALYSIS -- SENSITIVITY OF RESULTS TO MODEL GEOMETRY, AND CORRELATIONS AND CROSS CORRELATIONS AMONG INPUT PARAMETERS (2 COPIES) (85/03)
RHO-BW-ST-70P NWC #: 1140

CLIFTON, P.M., STOCHASTIC GROUNDWATER TRAVELTIME MODELING USING A MONTE CARLO TECHNIQUE (84/03)
RHO-BW-SA-366P NWC #: 1141

CLIFTON, P.M., NUMERICAL MODELING OF GROUNDWATER FLOW AND SOLUTE TRANSPORT FOR A NUCLEAR WASTE REPOSITORY IN BASALT (82/05)
RHO-BW-SA-188 NWC #: 1226

CLIFTON, P.M., GROUNDWATER TRAVEL TIME UNCERTAINTY ANALYSIS - SENSITIVITY OF RESULTS TO MODEL GEOMETRY, AND CORRELATIONS AND CROSS CORRELATIONS AMONG INPUT PARAMETERS (84/12)
SD-BWI-TI-256 NWC #: 1257

CLIFTON, P.M., PRELIMINARY UNCERTAINTY ANALYSIS OF PRE-WASTE EMPLACEMENT GROUNDWATER TRAVEL TIMES FOR A PROPOSED REPOSITORY IN BASALT (84/12)
SD-BWI-TA-013 NWC #: 1258

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SD-BWI-DP-064 NWC #: 1096

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SD-BWI-DP-042 NWC #: 1261

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VOLUME 2 - TECHNICAL REVIEW
FINAL REPORT (TASK 2) (84/09)
NUREG/CR-4026 VOL. 2
813-1177 NWC #: 1412

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EVALUATION OF UNDERGROUND FACILITY DESIGN AND PERFORMANCE (82/07)
813-1179F D230A NWC #: 1311

TANAKA, H., REGIONAL BASALT HYDROLOGY OF THE COLUMBIA PLATEAU IN WASHINGTON (79/10)
RHO-BWI-C-60 NWC #: 1155

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RHO-BWI-C-14 NWC #: 1175

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BMI/ONWI-535 NWC #: 1437

TASC, , DEFINITION OF DESIGN PERFORMANCE CRITERIA FOR A GEOLOGIC WASTE REPOSITORY (77/06)
TP-1210 NWC #: 1492

THOMAS, J.M., REVIEW OF TASC REPORT TR-3677 "BOREHOLE ASSESSMENT NEEDS PLAN" (83/12)
NWC #: 1085

THOMAS, J.M., KRIGING PERMEABILITY MEASUREMENTS (83/12)
NWC #: 1086

THOMAS, R.E., A FEASIBILITY STUDY USING HYPOTHESIS TESTING TO DEMONSTRATE CONTAINMENT OF RADIONUCLIDES WITHIN WASTE PACKAGES (86/04)
BMI/ONWI-599 NWC #: 1663

THOMAS, S.D., A SUMMARY OF REPOSITORY SITING MODELS (82/07)
NUREG/CR-2782 NWC #: 1613

THORNE, P.D., HYDROLOGIC TEST RESULTS FOR THE ROCKY COULEE FLOW INTERIOR AT BOREHOLE DC-4 (83/12)
SD-BWI-TI-175 NWC #: 1288

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RHO-BWI-SA-54 A NWC #: 1199

VERMA, T.R., PRE-SCR HYDROGEOLOGY MEETING WITH CONTRACTORS - NRC/WMSS/WMHT (2 COPIES) (82/11)
NWC #: 1026

VIETH, D.L., NRC-NNWSI PROJECT EXPLORATORY SHAFT DESIGN/CONSTRUCTION MEETING SUMMARY
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AUGUST 27-28, 1985 (85/11)
NWC #: 1546

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GL-80-12 (MISC. PAPER) NWC #: 1378

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POSITION EVALUATION AND CRITERIA DEVELOPMENT (82/10)
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(3 COPIES) (84/04)
NUREG/CR-3316
SAND83-1154 NWC #: 1678

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(2 COPIES) (84/02)
NUREG/CR-3636 NWC #: 1329

WATERS, A.C., BASALT STRATIGRAPHY - PASCO BASIN (79/10)
RHO-BWI-SA-26 NWC #: 1196

WATKINS, D.J., PRELIMINARY FINDINGS AND RECOMMENDATIONS FOR APPLICATION OF GEOCHEMICAL DATA TO INTERPRETATION OF THE HYDROLOGY OF THE BWIP SITE
(2 COPIES) (82/12)
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WEBER, M., USER'S MANUAL FOR GNET/DVM (83/05)
NWC #: 1394

WICK, E.A., HOW RELIABLE DOES THE WASTE PACKAGE CONTAINMENT HAVE TO BE?
(86/07)
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(3 COPIES) (86/01)
NUREG/CR-4369
SAND85-1774 NWC #: 1676

WILLIAMS, R., BOREHOLE REVIEW FORMS AND ATTACHED INFORMATION (82/07)
NWC #: 1032

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FIN-B-7372-3 NWC #: 1113

WILLIAMS, R.E., COMMENTS ON VERTICAL K MEASUREMENTS AT THE BWIP (84/06)
NWC #: 1114

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NWC #: 1320

WILLIAMS, R.E., REVIEW OF DRAFT GENERIC TECHNICAL POSITIONS: INTERPRETATION AND IDENTIFICATION OF THE EXTENT OF THE DISTURBED ZONE IN THE HIGH-LEVEL WASTE RULE (10 CFR 60) AND GROUNDWATER... (85/12)
10 CFR 60 NWC #: 1704

WILLIAMS & ASSOC., , DRILLING MUD EFFECTS ON HYDROGEOLOGIC TESTING (2 COPIES) (82/10)
NWC #: 1006

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NWC #: 1014

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NWC #: 1046

WILLIAMS & ASSOC., , STATISTICAL EVALUATION OF HYDROCHEMICAL DATA FROM THE SADDLE MOUNTAINS, WANAPUM AND GRANDE RONDE BASALTS (83/08)
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WILLIAMS & ASSOC., , REVIEW: SD-BWI-TP-040, "TEST PLAN FOR MULTIPLE-WELL HYDRAULIC TESTING OF SELECTED HYDROGEOLOGIC UNITS AT THE RRL-2 SITE..." (85/11)
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HANFORD SITE (85/08)
NWC #: 1653

WINTCZAK, T.M., PRINCIPAL BOREHOLE REPORT BOREHOLE RRL-2 (83/01)
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WINTER, C.L., PREDICTION OF FAR-FIELD SUBSURFACE RADIONUCLIDE DISPERSION COEFFICIENTS FROM HYDRAULIC CONDUCTIVITY MEASUREMENTS A MULTIDIMENSIONAL STOCHASTIC THEORY WITH APPLICATION TO FRACTURED... (84/03)
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FIN #B7372-3 NWC #: 1054

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WINTER, G., LETTER: REVIEW OF SD-BWI-TI-176: "EFFECTS OF DRILLING FLUID INVASION ON HYDRAULIC CHARACTERIZATION OF LOW PERMEABILITY BASALT HORIZONS--A FIELD EVALUATION" (84/06)
FIN-B-7372-3 NWC #: 1116

WINTER, G., REPORT ON SYSTEM-PACKER COMPLIANCY EFFECTS (84/06)
FIN B-7372-3 #83 NWC #: 1117

WINTER, G., LETTER: COPIES OF THE LOGS FOR RRL-6 AND RRL-14 (83/07)
NWC #: 1120

WINTER, G.V., REVIEW: PRELIMINARY EVALUATION OF PIEZOMETER RESPONSES AT DC-19, DC-20, AND DC-22, DURING CONSTRUCTION OF DC-23W (SD-BWI-TI-313) (86/05)
SD-BWI-TI-313 NWC #: 1702

WINTERS, G.V., REVIEW: GROUNDWATER TRAVEL TIME ANALYSIS FOR THE REFERENCE REPOSITORY LOCATION AT THE HANFORD SITE (SD-BWI-TI-303) (86/05)
SD-BWI-TI-303 NWC #: 1703

WITHERSPOON, P.A., LETTER TO DOE RE: INSITU TEST FACILITY FOR BWIP (79/11)
NWC #: 1022

WOOD, B.J., ESTIMATION OF WASTE PACKAGE PERFORMANCE REQUIREMENTS FOR A NUCLEAR WASTE REPOSITORY IN BASALT (80/07)
RHO-BWI-ST-10 NWC #: 1181

WOOD, T.J., MCGEE WELL REPORT (84/11)
SD-BWI-TI-227 NWC #: 1148

WOODWARD-CLYDE CONS., , STUDY TO IDENTIFY A REFERENCE REPOSITORY LOCATION FOR A NUCLEAR WASTE REPOSITORY ON THE HANFORD SITE VOL. I (81/05)
RHO-BWI-C-107 VOL. I NWC #: 1231

WRIGHT, R., NRC COMMENTS ON DOE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE HANFORD SITE (85/03)
NWC #: 1047

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WRIGHT, R.J., COMMENTS ON BWIP HYDROGEOLOGIC TEST DATA, ALSO ATTACHED: TRIP REPORT (84/05)
NWC #: 1074

WRIGHT, R.J., SD-BWI-TS-007 REVIEW: "APPLICABILITY OF THE VAN DER KAMP METHOD IN SLUG TEST ANALYSIS (83/11)
NWC #: 1090

WRIGHT, R.J., LICENSING INFORMATION NEEDS FOR A HIGH-LEVEL WASTE REPOSITORY (2 COPIES) (84/10)
NWC #: 1340

WRIGHT, R.J., MEMOS ( )
NWC #: 1524

YEATMAN, R.A., WATER-LEVEL DATA COLLECTED FROM PIEZOMETER CLUSTERS DC-19, DC-20 AND DC-22
MAY 1 THROUGH MAY 31, 1984 (2 COPIES) (84/07)
SD-BWI-DP-048 NWC #: 1278

YEH, T.C.J., UNSATURATED FLOW IN HETEROGENEOUS SOILS (84/07)
NWC #: 1094

YOOK, H.R., REPOSITORY PRECLOSURE ACCIDENT SCENARIOS (84/09)
BMI/ONWI-551 NWC #: 1447

ATTACHMENT B

DATA BASE LEGEND

(The legend applies to abbreviations used in all data bases.)

LEGEND

SM	= SADDLE MOUNTAINS	BG	= BEST GUESS
RR	= RATTLESNAKE RIDGE	COND	= CONDUCTIVITY
POM	= POMONA	TEMP	= TEMPERATURE
ESQ	= ESQUATZEL	TRAN	= TRANSMISSIVITY
CC	= COLD CREEK	MP ELEV	= MAP POINT ELEVATION (NEGATIVE NUMBERS INDICATE FEET ABOVE SEA LEVEL)
UMAT	= UMATILLA		
MAB	= MABTON		
WN	= WANAPUM		
PR	= PRIEST RAPIDS	Q	= FLOWRATE
RZ	= ROZA	DIST	= DISTANCE (R)
FR	= FRENCHMAN SPRINGS	PROD	= PRODUCTION HOLE
SENT	= SENTINEL GAP	OBS	= OBSERVATION HOLE
VT	= VANTAGE	TEST	= TYPE TEST DONE
		QA	= QUALITY ASSURANCE
GR	= GRANDE RONDE		
RC	= ROCKY COULEE		
CH	= COHASSETT	ERR	= INDICATE
BK	= BIRKETT	NA	= UNAVAILABLE DATA
UM	= UMTANUM	?	=

CE	= COLONNADE ENTABLATURE
COMP	= COMPOSITE INTERBED/INTERFLOW
FB	= FLOW BOTTOM
FRAC	= FRACTURE
FT	= FLOWTOP
IB	= INTERBED
IF	= INTERFLOW
UN	= UNCONFINED

MEASURING TYPES:

U	= UPHOLE INSTRUMENTS
D	= DOWNHOLE INSTRUMENTS

DEPTHS IN GEOLOGICAL DATA ARE GIVEN TO TOP OF FORMATION

MULTIPLE BOREHOLE DATABASE HAS A RATINGS COLUMN BASED ON ROCKWELL'S RATINGS (SD-BWI-DP-051)

PMC	= PERCENT MODERN CARBON	pH	= FIELD pH
ORP	= OX-REDOX POTENTIAL	Tu	= TRITIUM UNITS
su	= STANDARD UNITS	cm	= CENTIMETER
mv	= MILLIVOLT	mg	= MILLIGRAM
umho	= MILLIMHO	l	= LITER

GEOLOGICAL STATISTICS

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TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	MP ELEV	SADDLE MOUNTAINS DEPTH	SADDLE MOUNTAINS % IF	WANAPUM PRIEST RAPIDS DEPTH	PRIEST RAPIDS % IF	ROZA DEPTH	ROZA % IF	FRENCHMAN SPRINGS DEPTH	FRENCHMAN SPRINGS % IF	GRANDE RONDE GR (ABOVE RC) DEPTH	GR (ABOVE RC) % IF	ROCKY COULEE IF DEPTH	ROCKY COULEE IF FRAC	ROCKY COULEE CE DEPTH	ROCKY COULEE CE FRAC	GR (BETWEEN RC & CH) IF DEPTH	GR (BETWEEN RC & CH) IF FRAC	GR (BETWEEN RC & CH) CE DEPTH	GR (BETWEEN RC & CH) CE FRAC
DC-02	N47,968	W48,255	-174.3	62.5	28.2	254.4	32.1	349.0	14.8	410.6	14.1	623.6	12.7	659.9	ERR	661.1	ERR	706.5	ERR	706.5	ERR
DC-04	N49,386	W85,208	-227.1	189.9	37.1	421.8	37.0	532.5	1.2	584.0	12.3	811.7	12.8	852.2	ERR	860.8	ERR	904.0	ERR	904.0	ERR
DC-06	N54,137	W17,721	-122.5	108.2	7.1	302.7	44.5	390.8	15.8	443.2	7.2	656.8	3.0	689.8	ERR	691.3	ERR	733.0	ERR	734.6	ERR
DC-12	N10,125	W53,687	-157.3	64.0	22.6	303.0	37.1	408.1	6.2	463.0	14.6	683.8	1.7	736.1	ERR	742.5	ERR	784.3	ERR	784.9	ERR
DC-14	N84,489	W33,860	-120.1	107.9	23.1	296.0	34.7	394.4	9.2	454.5	9.4	654.7	2.8	665.4	ERR	665.4	ERR	721.8	ERR	723.0	ERR
DC-15	S15,134	E14,990	-122.5	94.8	47.4	309.7	21.5	378.0	33.3	429.0	17.0	645.4	20.7	690.4	ERR	699.2	ERR	744.3	ERR	744.6	ERR
DC-7/8	N14,956	W14,862	-166.1	214.0	25.0	458.7	31.6	545.6	22.2	609.9	9.5	818.1	9.5	857.1	ERR	860.1	ERR	904.0	ERR	904.6	ERR
DDH-3	S30,383	E15,232	-121.9	91.1	22.0	340.8	27.5	393.8	26.3	445.9	14.7	669.6	16.0	722.7	ERR	723.3	ERR	784.6	ERR	784.9	ERR
DH-4	N117,000	W10,000	-280.4	6.4	6.0	122.2	16.7	189.3	11.5	246.6	25.0	450.8	45.3	484.6	ERR	487.1	ERR	500.5	ERR	502.9	ERR
DH-5	N114,000	W127,000	-284.1	64.9	32.3	173.7	36.2	277.4	3.6	319.4	4.4	513.9	25.9	551.4	ERR	553.5	ERR	598.9	ERR	600.2	ERR
RRL-14	N41,473	W91,228	-199.6	207.9	43.3	451.1	38.1	559.9	3.0	613.6	14.6	850.1	23.0	884.5	ERR	888.2	ERR	888.2	ERR	888.2	ERR
RRL-2	N39,212	W84,040	-193.2	184.4	31.9	426.4	36.2	533.2	5.1	585.8	7.9	817.8	2.8	860.5	ERR	865.6	ERR	865.6	ERR	865.6	ERR
RRL-6	N33,507	W88,816	-196.0	198.4	33.5	451.1	36.0	561.1	13.3	615.8	11.9	841.7	13.9	891.2	ERR	894.6	ERR	894.6	ERR	894.6	ERR
RRL-15	N39,200	W78,750																			
DC-19A	N28,532	W70,338																			
RRL-12	N21,510	W83,399																			
RRL-11	N35,247	W94,608																			
RRL-10	N37,029	W88,639																			
RRL-9	N39,665	W79,978																			
RRL-8	N47,410	W91,631																			
RRL-7	N45,720	W84,815																			
RRL-5	N42,314	W88,475																			
RRL-4	N35,498	W78,251																			
RRL-3	N44,578	W84,174																			
DC-23	N57,020	W82,993																			
DC-22D	N43,461	W91,140																			
DC-22C	N43,531	W91,025																			
DC-22B	N43,451	W90,899																			
DC-22A	N43,369	W90,775																			
DC-20D	N46,984	W80,038																			
DC-20C	N46,785	W79,920																			
DC-20B	N46,909	W79,836																			
DC-20A	N46,704	W79,817																			
DC-19D	N28,724	W70,122																			
DC-19C	N28,808	W70,245																			
DC-16C	N31,290	W84,238																			
DC-16A	N31,316	W83,729																			
DC-12	N10,125	W53,687																			
DC-11	N60,653	W53,026																			
DC-10	N62,468	W53,244																			
DC-5	N49,453	W85,131																			
DC-3	N43,802	W70,156																			
CH#	N60,334	W52,760																			
DH-28	N49,716	W96,425																			
DH-27	N49,720	W98,742																			
DH-26	N25,739	W83,249																			
DH-25	N40,345	W84,146																			

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TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	COHASSETT IF DEPTH	COHASSETT IF FRAC	COHASSETT CE DEPTH	COHASSETT CE FRAC	GRANDE RONDE 6R (BETWEEN CH & UM) DEPTH	6R (BETWEEN CH & UM) % IF	UMTANUM DEPTH	UMTANUM % IF	TWO FLOWS BELOW UMTANUM DEPTH	TWO FLOWS BELOW UMTANUM % IF	BOTTOM	REFERENCES	COMMENTS
DC-02	N47,968	W48,255	716.0	ERR	720.2	ERR	800.4	5.2	901.6	16.7	968.7	10.2	1005.8	NWC-1136/NWC-1635	
DC-04	N49,386	W85,208	904.0	ERR	908.6	ERR	985.7	6.0	1097.3	27.2	1159.8	14.0	1218.6	NWC-1136/NWC-1635	
DC-06	N54,137	W17,721	749.2	ERR	751.0	ERR	821.4	9.9	925.4	12.1	993.0	17.0	1076.9	NWC-1136/NWC-1635	
DC-12	N10,125	W53,687	794.2	ERR	805.0	ERR	862.0	16.3	978.9	22.4	1050.8	0.0	1076.1	NWC-1136/NWC-1635	
DC-14	N54,489	W33,860	739.7	ERR	745.5	ERR	818.7	7.2	936.3	41.7	975.4	19.5	1000.0	NWC-1136/NWC-1635	
DC-15	S15,134	E14,890	763.5	ERR	769.0	ERR	810.5	5.6	913.2	42.0	991.5	17.6	1051.3	NWC-1136/NWC-1635	COORDS ARE ESTIMATES
DC-7/8	N14,956	W14,862	924.8	ERR	937.0	ERR	983.0	18.6	1084.9	32.3	1158.5	8.6	1191.0	NWC-1136/NWC-1635	COORDS FROM DC-8
DDH-3	S30,383	E15,232	791.3	ERR	801.6	ERR	841.2	3.3	935.4	21.7	1022.3	0.0	1077.2	NWC-1136/NWC-1635	
DH-4	N117,000	W10,000	509.0	ERR	513.3	ERR	587.0	4.9	701.6	32.5	742.2	1.4	785.8	NWC-1136/NWC-1635	COORDS ARE ESTIMATES
DH-5	N114,000	W127,000	613.3	ERR	616.9	ERR	684.6	12.5	796.7	14.4	860.8	1.5	961.0	NWC-1136/NWC-1635	COORDS ARE ESTIMATES
RRL-14	N41,473	W91,228	939.4	ERR	944.4	ERR	1011.9	15.9	1134.9	33.9	1194.8	29.9	1219.2	NWC-1136/NWC-1635	
RRL-2	N39,212	W84,040	912.3	ERR	914.1	ERR	992.1	17.3	1099.4	64.1	1169.8	38.9	1211.0	NWC-1136/NWC-1635	
RRL-6	N33,507	W88,816	942.6	ERR	945.5	ERR	1019.3	17.1	1132.5	40.6	1202.7	4.9	1231.4	NWC-1136/NWC-1635	COORDS FROM RRL-6B
RRL-15	N39,200	W78,750												NWC-1635	COORDS ARE ESTIMATES
DC-19A	N28,532	W70,338												NWC-1635	RRL-13=DC-19A
RRL-12	N21,510	W83,399												NWC-1635	
RRL-11	N35,247	W94,608												NWC-1635	
RRL-10	N37,029	W88,639												NWC-1635	
RRL-9	N39,665	W79,978												NWC-1635	
RRL-8	N47,410	W91,631												NWC-1635	
RRL-7	N45,720	W84,815												NWC-1635	
RRL-5	N42,314	W88,475												NWC-1635	
RRL-4	N35,498	W78,251												NWC-1635	
RRL-3	N44,578	W84,174												NWC-1635	
DC-23	N57,020	W82,993												NWC-1635	
DC-22D	N43,461	W91,140												NWC-1635	
DC-22C	N43,531	W91,025												NWC-1635	
DC-22B	N43,451	W90,899												NWC-1635	
DC-22A	N43,369	W90,775												NWC-1635	
DC-20D	N46,984	W80,038												NWC-1635	
DC-20C	N46,785	W79,920												NWC-1635	
DC-20B	N46,909	W79,836												NWC-1635	
DC-20A	N46,704	W79,817												NWC-1635	
DC-19D	N28,724	W70,122												NWC-1635	
DC-19C	N28,808	W70,245												NWC-1635	
DC-16C	N31,290	W84,238												NWC-1635	
DC-16A	N31,316	W83,729												NWC-1635	
DC-12	N10,125	W53,687												NWC-1635	
DC-11	N60,693	W53,026												NWC-1635	
DC-10	N62,468	W53,244												NWC-1635	
DC-5	N49,453	W85,131												NWC-1635	
DC-3	N43,802	W70,156												NWC-1635	
CH#	N60,334	W52,760												NWC-1635	COORDS ARE CH6
DH-28	N49,716	W76,425												NWC-1635	
DH-27	N49,720	W98,742												NWC-1635	
DH-26	N25,739	W93,249												NWC-1635	
DH-25	N40,345	W84,146												NWC-1635	

GEOLOGICAL STATISTICS PAGE 2A

TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	MP ELEV	SADDLE MOUNTAINS DEPTH	SADDLE MOUNTAINS % IF	WANAPUM PRIEST RAPIDS DEPTH	WANAPUM PRIEST RAPIDS % IF	WANAPUM ROZA DEPTH	WANAPUM ROZA % IF	WANAPUM FRENCHMAN SPRINGS DEPTH	WANAPUM FRENCHMAN SPRINGS % IF	GRANDE RONDE GR (ABOVE RC) DEPTH	GRANDE RONDE GR (ABOVE RC) % IF	GRANDE RONDE ROCKY COULEE IF DEPTH	GRANDE RONDE ROCKY COULEE IF FRAC	GRANDE RONDE ROCKY COULEE CE DEPTH	GRANDE RONDE ROCKY COULEE CE FRAC	GRANDE RONDE GR (BETWEEN RC & CH) IF DEPTH	GRANDE RONDE GR (BETWEEN RC & CH) IF FRAC	GRANDE RONDE GR (BETWEEN RC & CH) CE DEPTH	GRANDE RONDE GR (BETWEEN RC & CH) CE FRAC
DH-24	N43,315	W84,341																			
DH-23	N46,491	W84,555																			
DH-22	N36,579	W91,788																			
DH-21	N37,120	W84,153																			
DH-20	N29,256	W83,312																			
DH-8A	N60,720	W55,336																			
DH-8B	N60,800	W55,300																			
DH-9	N49,426	W100,348																			
DH-9A	N43,049	W41,716																			
DH-9B	N53,873	W17,345																			
DH-10	N59,282	W55,205																			
DH-11	N39,988	W78,091																			
DH-12	N60,003	W75,002																			
DH-13	N40,100	W71,800																			
DH-13A	N40,098	W71,795																			
DH-14	N42,200	W55,800																			
DH-15	N42,300	W52,000																			
DH-16	N42,155	W48,055																			
DH-17	N38,065	W56,023																			
ENYEART	N50,285	W111,396																			
O'BRIAN	N52,647	W114,053																			
FORD	N52,993	W111,403																			
MCGEE	N52,747	W103,405																			
BENSON RAN	N19,847	W82,645																			
LEMCKE	N52,000	W119,500																			
NW-6	S8,850	W63,170																			
RSH-1	S0	W112,000																			
399-5-2	S26,299	W9,870																			
511-E12A	S10,692	W12,261																			
92-14	N92,000	W14,000																			
113-38	N113,000	W38,000																			
114-60	N114,000	W60,000																			
BH-17	N80,816	W62,076																			
ARH-DC-1	N48,000	W48,200																			
DB-1	N1,633	E13,573																			
DB-2	N15,323	E12,713																			
DB-3	N1,962	E18,926																			
DB-4	N34,673	W27,437																			
DB-5	N51,889	W52,377																			
DB-6	N1,420	W17,594																			
DB-7	N16,279	W23,534																			
DB-8	N41,994	W42,063																			
DB-9	N62,200	W56,200																			
DB-10	N51,236	W35,886																			
DB-11	N49,426	W100,348																			
DB-12	N63,009	W95,020																			
DB-13	N17,333	W47,318																			

GEOLOGICAL STATISTICS PAGE 2B

TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	GRANDE RONDE: COHASSETT IF DEPTH	COHASSETT IF FRAC	COHASSETT CE DEPTH	COHASSETT CE FRAC	GR (BETWEEN CH & UM) DEPTH	GR (BETWEEN CH & UM) % IF	UMTANUM DEPTH	UMTANUM % IF	TWO FLOWS BELOW UMTANUM DEPTH	TWO FLOWS BELOW UMTANUM % IF	BOTTOM	REFERENCES	COMMENTS
DH-24	N43,315	W84,341												NWC-1635	
DH-23	N46,491	W84,555												NWC-1635	
DH-22	N36,579	W91,785												NWC-1635	
DH-21	N37,120	W84,153												NWC-1635	
DH-20	N29,256	W83,312												NWC-1635	
DH-8A	N60,720	W55,336												NWC-1635	
DH-8B	N60,800	W55,300												NWC-1635	
DH-9	N49,426	W100,348												NWC-1635	
DH-9A	N43,049	W41,716												NWC-1635	
DH-9B	N53,873	W17,345												NWC-1635	
DH-10	N59,282	W55,205												NWC-1635	
DH-11	N39,988	W78,091												NWC-1635	
DH-12	N60,003	W75,002												NWC-1635	
DH-13	N40,100	W71,800												NWC-1635	COORDS ARE ESTIMATES
DH-13A	N40,098	W71,795												NWC-1635	
DH-14	N42,200	W55,800												NWC-1635	COORDS ARE ESTIMATES
DH-15	N42,300	W52,000												NWC-1635	COORDS ARE ESTIMATES
DH-16	N42,155	W48,055												NWC-1635	
DH-17	N38,065	W56,023												NWC-1635	
ENYEART	N50,285	W111,396												NWC-1635	
O'BRIAN	N52,647	W114,053												NWC-1635	
FORD	N52,993	W111,403												NWC-1635	
MCGEE	N52,747	W103,405												NWC-1635	
BENSON RAN	N19,847	W82,645												NWC-1635	
LEMCKE	N52,000	W119,500												NWC-1635	
WW-6	S8,850	W63,170												NWC-1635	
RSH-1	S0	W112,000												NWC-1635	COORDS ARE ESTIMATES
399-5-2	S26,299	W9,870												NWC-1635	
511-E12A	S10,692	W12,261												NWC-1635	
92-14	N92,000	W14,000												NWC-1635	
113-38	N113,000	W38,000												NWC-1635	
114-60	N114,000	W60,000												NWC-1635	
BH-17	N80,816	W62,076												NWC-1635	
ARH-DC-1	N48,000	W48,200												NWC-1635	
DB-1	N1,633	E13,573												NWC-1635	
DB-2	N15,323	E12,713												NWC-1635	
DB-3	N1,962	E18,926												NWC-1635	
DB-4	N34,673	W27,437												NWC-1635	
DB-5	N51,889	W52,377												NWC-1635	
DB-6	N1,420	W17,594												NWC-1635	
DB-7	N16,279	W23,534												NWC-1635	
DB-8	N41,994	W42,063												NWC-1635	
DB-9	N62,200	W56,200												NWC-1635	
DB-10	N51,236	W35,886												NWC-1635	
DB-11	N49,426	W100,348												NWC-1635	
DB-12	N63,009	W95,020												NWC-1635	
DB-13	N17,333	W47,318												NWC-1635	

GEOLOGICAL STATISTICS **PAGE 3A**

TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	MP ELEV	SADDLE MOUNTAINS DEPTH	SADDLE MOUNTAINS % IF	WANAPUM PRIEST RAPIDS DEPTH	WANAPUM PRIEST RAPIDS % IF	WANAPUM ROZA DEPTH	WANAPUM ROZA % IF	WANAPUM FRENCHMAN SPRINGS DEPTH	WANAPUM FRENCHMAN SPRINGS % IF	GRANDE RONDE GR (ABOVE RC) DEPTH	GRANDE RONDE GR (ABOVE RC) % IF	GRANDE RONDE ROCKY COULEE IF DEPTH	GRANDE RONDE ROCKY COULEE IF FRAC	GRANDE RONDE ROCKY COULEE CE DEPTH	GRANDE RONDE ROCKY COULEE CE FRAC	GRANDE RONDE GR (BETWEEN RC & CH) IF DEPTH	GRANDE RONDE GR (BETWEEN RC & CH) IF FRAC	GRANDE RONDE GR (BETWEEN RC & CH) CE DEPTH	GRANDE RONDE GR (BETWEEN RC & CH) CE FRAC
DB-14	N25,080	W79,512																			
DB-15	N47,310	W41,772																			
DDH-1	N49,367	W48,347																			
DH-2	S0	W112,000																			

TEST HOLE	HANFORD COORD N/S	HANFORD COORD E/W	COHASSETT IF DEPTH	COHASSETT IF FRAC	COHASSETT CE DEPTH	COHASSETT CE FRAC	GRANDE RONDE GR (BETWEEN CH & UM) DEPTH	GR (BETWEEN CH & UM) % IF	UMTANUM DEPTH	UMTANUM % IF	TWO FLOWS BELOW UMTANUM DEPTH	TWO FLOWS BELOW UMTANUM % IF	BOTTOM	REFERENCES	COMMENTS
DB-14	N25,080	W79,512												NWC-1635	
DB-15	N47,310	W41,772												NWC-1635	
DDH-1	N49,367	W48,347												NWC-1635	
DH-2	S0	W112,000												NWC-1635	COORDS ARE ESTIMATES

SINGLE BOREHOLE TEST DATA

PAGES 1 THROUGH 5

IDENTIFIER			INPUT DATA												CALCULATED DATA						
	TEST INTERVAL		EFFECTIVE INTERVAL					TRANSMISSIVITY									EFFECTIVE CONDUCTIVITY				
TEST HOLE	TOP	BOTTOM	TOP	BOTTOM	GROUP	UNIT	BASALT STRUCTURE	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	LOG TRAN	EFFECTIVE THICKNESS	MIN	MAX	BG	LOG COND	COMMENTS
47-50	79.2	89.9	79.2	89.9	SM	RATTLE	IB	ERR	ERR	7.85E-04	?	0	Y	ST-38	-3.105	10.7	ERR	ERR	7.33E-05	-4.135	
50-45	40.5	54.3	40.5	54.3	SM	RATTLE	IB	ERR	ERR	1.61E-04	?	0	Y	ST-38	-3.792	13.8	ERR	ERR	1.17E-05	-4.932	
50-48	64.9	76.2	64.9	76.2	SM	RATTLE	IB	ERR	ERR	3.44E-04	?	0	Y	ST-38	-3.463	11.3	ERR	ERR	3.04E-05	-4.517	
51-46	36.6	50.3	36.6	50.3	SM	RATTLE	IB	ERR	ERR	7.42E-05	?	0	Y	ST-38	-4.130	13.7	ERR	ERR	5.41E-06	-5.266	
52-46	50.3	68.6	50.3	68.6	SM	RATTLE	IB	ERR	ERR	1.72E-04	?	0	Y	ST-38	-3.764	18.3	ERR	ERR	9.40E-06	-5.027	
52-48	44.2	59.4	44.2	59.4	SM	RATTLE	IB	ERR	ERR	3.98E-05	?	0	Y	ST-38	-4.400	15.2	ERR	ERR	2.62E-06	-5.582	
53-50	44.5	58.8	44.5	58.8	SM	RATTLE	IB	ERR	ERR	6.34E-04	?	0	Y	ST-38	-3.198	14.3	ERR	ERR	4.44E-05	-4.353	
BH-16	249.9	281.9	265.2	280.4	SM	SELAH	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	15.2	7.07E-07	7.07E-06	1.97E-06	-5.705	
BH-17	312.4	334.1	313.6	318.2	SM	ASOTIN	IF	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-84/11	-6.523	4.6	2.34E-08	2.34E-07	6.52E-08	-7.186	
DB-01	297.5	301.8	ERR	ERR	WN	MABTON	IB	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	ERR	ERR	ERR	ERR	ERR	
DB-01	329.2	347.2	ERR	ERR	WN	PRIEST	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	ERR	ERR	ERR	ERR	ERR	
DB-02	274.3	281.6	274.3	281.6	WN	MABTON	IB	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	7.3	1.47E-04	ERR	ERR	ERR	
DB-02	313.3	362.7	313.3	338.3	WN	PRIEST	COMP	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	25.0	4.30E-06	4.30E-05	1.20E-05	-4.921	
DB-02	355.4	362.7	356.0	359.7	WN	ROZA	FT	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	3.7	2.91E-06	2.91E-05	8.11E-06	-5.091	
DB-02	363.3	388.0	363.3	388.3	WN	ROZA	CE	ERR	ERR	3.55E-10	?	0	Y	TI-176	-9.450	25.0	ERR	ERR	1.42E-11	-10.848	
DB-04	414.5	427.6	415.4	427.6	WN	MABTON	IB	1.08E-03	ERR	ERR	?	?	N	B-84/11	ERR	12.2	8.81E-05	ERR	ERR	ERR	
DB-05	248.1	276.8	253.9	276.8	WN	MABTON	IB	1.07E-04	1.08E-03	3.00E-04	?	?	N	B-84/11	-3.523	22.9	4.69E-06	4.69E-05	1.31E-05	-4.883	
DB-07	182.0	247.5	236.5	247.5	WN	MABTON	IB	1.08E-03	ERR	ERR	?	?	N	B-84/11	ERR	11.0	9.77E-05	ERR	ERR	ERR	
DB-09	140.5	179.5	149.4	179.5	WN	MABTON	IB	1.07E-04	1.08E-03	3.00E-04	?	?	N	B-84/11	-3.523	30.1	3.57E-06	3.57E-05	9.97E-06	-5.001	
DB-10	242.0	272.2	256.9	272.2	WN	MABTON	IB	1.08E-07	1.08E-06	3.00E-07	?	?	N	B-84/11	-6.523	15.3	7.03E-09	7.03E-08	1.96E-08	-7.708	
DB-11	216.1	315.8	264.0	307.2	WN	MABTON	IB	1.09E-07	1.08E-05	1.08E-06	?	1	N	B-84/11	-5.969	43.2	2.49E-09	2.49E-07	2.49E-08	-7.604	
DB-12	114.6	156.4	114.6	156.4	WN	MABTON	IB	ERR	ERR	1.72E-03	?	1	N	B-84/11	-2.764	41.8	ERR	ERR	4.11E-05	-4.386	
DB-12	159.7	199.0	178.6	179.8	WN	PRIEST	IF	1.07E-02	ERR	ERR	?	1	N	B-84/11	ERR	1.2	8.96E-03	ERR	ERR	ERR	
DB-12	201.2	215.5	207.0	210.0	WN	PRIEST	IF	1.07E-02	ERR	ERR	?	1	N	B-84/11	ERR	3.0	3.58E-03	ERR	ERR	ERR	
DB-13	115.2	116.1	ERR	ERR	SM	ELEPHANT	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	ERR	ERR	ERR	ERR	ERR	
DB-13	141.1	163.4	ERR	ERR	SM	RATTLE	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	ERR	ERR	ERR	ERR	ERR	
DB-13	219.5	225.2	ERR	ERR	SM	SELAH	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	ERR	ERR	ERR	ERR	ERR	
DB-13	264.3	287.1	ERR	ERR	SM	COLD	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	ERR	ERR	ERR	ERR	ERR	
DB-13	364.2	393.8	364.2	393.8	WN	MABTON	IB	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	29.6	3.63E-05	3.63E-04	1.01E-04	-3.994	
DB-14	64.0	87.8	64.0	87.8	SM	RATTLE	IB	ERR	ERR	1.18E-05	?	0	Y	LD-67	-4.927	23.8	ERR	ERR	4.97E-07	-6.304	
DB-14	136.9	150.0	137.8	150.0	SM	SELAH	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	12.2	8.81E-07	8.81E-06	2.46E-06	-5.609	
DB-14	187.8	202.4	188.4	202.4	SM	COLD	IB	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	14.0	7.68E-05	7.68E-04	2.14E-04	-3.669	
DB-14	279.5	315.2	279.5	315.2	WN	MABTON	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	35.7	3.01E-06	3.01E-05	8.40E-06	-5.076	
DB-14	316.4	371.2	369.4	371.2	WN	PRIEST	IF	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	1.8	5.97E-05	ERR	ERR	ERR	
DB-15	45.7	67.7	50.6	67.7	SM	RATTLE	IB	5.04E-04	5.30E-04	5.16E-04	U	0	Y	B-83/07	-3.287	17.1	2.95E-05	3.10E-05	3.02E-05	-4.520	
DB-15	112.8	128.6	121.9	128.6	SM	SELAH	IB	ERR	ERR	8.30E-06	U	0	Y	B-83/08	-5.081	6.7	ERR	ERR	1.24E-06	-5.907	
DB-15	155.4	187.8	157.9	187.1	SM	COLD	IB	1.69E-03	1.95E-03	1.80E-03	U	0	Y	B-83/10	-2.745	29.2	5.79E-05	6.68E-05	6.16E-05	-4.210	
DB-15	195.1	207.9	202.7	207.9	SM	UMATILLA	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	5.2	2.07E-05	2.07E-04	5.77E-05	-4.239	
DB-15	207.3	257.3	229.8	257.3	WN	MABTON	IB	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	27.5	3.91E-05	ERR	ERR	ERR	
DB-15	207.3	229.8	210.0	229.8	SM	UMATILLA	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	19.8	5.43E-06	5.43E-05	1.52E-05	-4.820	
DB-15	318.5	336.8	323.4	336.8	WN	ROZA	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	13.4	8.02E-05	ERR	ERR	ERR	
DB-15	338.3	349.6	338.3	349.6	WN	ROZA	CE	1.07E-13	1.08E-11	1.07E-12	?	1	N	B-84/11	-11.969	11.3	9.51E-15	9.51E-13	9.51E-14	-13.022	
DB-15	396.2	409.3	399.3	409.3	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	10.0	1.08E-05	1.07E-04	3.00E-05	-4.523	
DB-15	412.4	418.5	413.6	417.6	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	4.0	2.69E-05	2.69E-04	7.50E-05	-4.125	
DB-15	424.6	439.8	431.3	437.7	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	6.4	1.68E-05	1.68E-04	4.69E-05	-4.329	
DB-15	442.0	466.3	444.7	466.3	WN	FRENCH	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	21.6	4.98E-07	4.98E-06	1.39E-06	-5.857	
DB-15	478.5	513.0	481.3	506.0	WN	FRENCH	IF	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	24.7	4.35E-06	ERR	ERR	ERR	
DB-15	524.3	548.6	532.2	535.2	WN	FRENCH	IF	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-84/11	-8.523	3.0	3.58E-10	3.58E-09	1.00E-09	-9.000	
DB-15	588.9	600.8	596.8	600.8	GR	VANTASE	IB	1.07E-12	1.08E-10	1.08E-11	?	1	N	B-86/02	-10.969	4.0	2.69E-13	2.69E-11	2.69E-12	-11.571	

IDENTIFIER			INPUT DATA												CALCULATED DATA						
	TEST INTERVAL		EFFECTIVE INTERVAL					TRANSMISSIVITY									EFFECTIVE CONDUCTIVITY				
TEST HOLE	TOP	BOTTOM	TOP	BOTTOM	GROUP	UNIT	BASALT STRUCTURE	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	LOG TRAN	EFFECTIVE THICKNESS	MIN	MAX	BG	LOG COND	COMMENTS
DC-03	1092.4	1107.9	1092.4	1107.9	GR	UMTANUM	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-86/02	-11.523	15.5	6.94E-14	6.94E-13	1.94E-13	-12.713	
DC-04	882.1	896.7	882.1	896.7	GR	ROCKY	CE	8.49E-13	1.83E-12	1.29E-12	D	0	Y	B-83/12	-11.889	14.6	5.82E-14	1.25E-13	8.84E-14	-13.054	
DC-04	899.2	915.6	904.0	908.6	GR	COHASSETT	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-84/11	-6.523	4.6	2.34E-08	2.34E-07	6.52E-08	-7.186	
DC-05	899.2	915.3	904.0	908.6	GR	COHASSETT	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	4.6	2.34E-08	2.34E-07	6.52E-08	-7.186	
DC-05	964.1	976.3	964.1	976.3	GR	COHASSETT	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-84/11	-11.523	12.2	8.81E-14	8.81E-13	2.46E-13	-12.609	
DC-06	688.8	1320.7	688.8	1320.7	GR	?	COMP	ERR	ERR	1.07E-04	?	1	N	B-84/11	-3.969	631.9	ERR	ERR	1.70E-07	-6.769	
DC-06	730.3	822.0	730.3	822.0	GR	?	COMP	1.08E-05	1.08E-06	3.00E-05	?	1	N	B-84/11	-4.523	91.7	1.17E-07	1.17E-08	3.27E-07	-6.485	
DC-06	822.0	881.8	821.1	871.7	GR	?	IF	ERR	ERR	1.08E-05	?	1	N	B-84/11	-4.969	50.6	ERR	ERR	2.12E-07	-6.673	
DC-06	912.0	938.2	925.4	933.9	GR	UMTANUM	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	8.5	1.26E-08	1.26E-07	3.53E-08	-7.452	
DC-06	937.9	988.8	937.9	988.8	GR	UMTANUM	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-84/11	-11.523	50.9	2.11E-14	2.11E-13	5.89E-14	-13.230	
DC-06	968.2	1075.6	993.0	1033.3	GR	UMTANUM	FB	ERR	ERR	1.08E-05	?	1	N	B-84/11	-4.969	40.3	ERR	ERR	2.67E-07	-6.574	
DC-06	1075.9	1165.6	1076.9	1158.8	GR	?	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	81.9	1.31E-07	1.31E-06	3.66E-07	-6.436	
DC-06	1165.6	1270.7	1165.6	1270.7	GR	?	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-84/11	-11.523	105.1	1.02E-14	1.02E-13	2.85E-14	-13.544	
DC-06	1270.7	1320.7	1275.3	1286.0	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	10.7	1.00E-07	1.00E-06	2.80E-07	-6.552	
DC-07	1255.8	1297.5	1255.8	1297.5	GR	?	COMP	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-84/11	-8.523	41.7	2.58E-11	2.58E-10	7.19E-11	-10.143	
DC-07	1298.8	1351.5	1310.9	1343.9	GR	?	IF	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-84/11	-8.523	33.0	3.26E-11	3.26E-10	9.09E-11	-10.041	
DC-07	1354.5	1406.7	1366.7	1395.7	GR	?	COMP	1.08E-08	1.08E-07	3.00E-08	?	1	N	B-84/11	-7.523	29.0	3.71E-10	3.71E-09	1.03E-09	-8.985	
DC-07	1427.7	1471.3	1430.4	1466.4	GR	?	IF	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-84/11	-8.523	36.0	2.99E-11	2.99E-10	8.33E-11	-10.079	
DC-12	370.9	382.2	373.4	382.2	WN	PRIEST	IF	ERR	ERR	1.29E-04	?	?	N	B-84/11	-3.889	8.8	ERR	ERR	1.47E-05	-4.834	
DC-12	404.8	415.7	405.4	415.7	WN	ROZA	IF	ERR	ERR	1.29E-04	?	?	N	B-84/11	-3.889	10.3	ERR	ERR	1.25E-05	-4.902	
DC-12	459.6	467.6	463.0	467.0	WN	FRENCH	IF	1.08E-05	1.61E-05	1.32E-05	?	?	N	B-84/11	-4.880	4.0	2.69E-06	4.03E-06	3.29E-06	-5.482	
DC-12	514.4	521.2	515.1	519.4	WN	FRENCH	IF	ERR	ERR	4.41E-05	?	?	N	B-84/11	-4.356	4.3	ERR	ERR	1.03E-05	-4.989	
DC-12	582.0	604.7	583.7	604.7	WN	FRENCH	IF	ERR	ERR	8.60E-07	?	?	N	B-84/11	-6.066	21.0	ERR	ERR	4.10E-08	-7.388	
DC-12	625.0	633.7	627.0	633.7	WN	FRENCH	IF	3.66E-05	8.39E-05	5.54E-05	?	?	N	B-84/11	-4.257	6.7	5.46E-06	1.25E-05	8.26E-06	-5.083	
DC-12	676.0	688.8	677.0	681.5	GR	?	IF	3.01E-07	8.60E-07	5.09E-07	?	?	N	B-84/11	-6.293	4.5	6.69E-08	1.91E-07	1.13E-07	-6.947	
DC-12	691.0	701.3	694.3	701.3	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	7.0	1.54E-07	1.54E-06	4.29E-07	-6.368	
DC-12	734.0	745.5	735.8	743.1	GR	ROCKY	FT	1.08E-05	1.07E-04	3.00E-05	?	?	N	B-86/02	-4.523	7.3	1.47E-06	1.47E-05	4.11E-06	-5.386	
DC-12	734.0	745.5	735.8	743.1	GR	ROCKY	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	7.3	1.47E-06	1.47E-05	4.11E-06	-5.386	
DC-12	781.8	811.2	784.3	807.1	GR	COHASSETT	COMP	1.08E-07	8.60E-07	3.04E-07	?	?	N	B-84/11	-6.517	22.8	4.71E-09	3.77E-08	1.33E-08	-7.875	
DC-12	858.9	866.5	862.0	865.3	GR	?	FT	1.08E-03	3.23E-03	1.86E-03	?	?	N	B-84/11	-2.730	3.3	3.26E-04	9.77E-04	5.64E-04	-3.249	
DC-12	858.9	866.5	862.0	865.3	GR	?	FT	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-86/02	-2.523	3.3	3.26E-04	3.26E-03	9.09E-04	-3.041	
DC-12	865.0	872.6	867.2	870.5	GR	?	FT	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-86/02	-3.523	3.3	3.26E-05	3.26E-04	9.09E-05	-4.041	
DC-12	865.0	872.6	867.2	870.5	GR	?	IF	8.60E-05	7.09E-04	2.47E-04	?	?	N	B-84/11	-3.607	3.3	2.61E-05	2.15E-04	7.48E-05	-4.126	
DC-12	907.7	961.0	912.6	952.5	GR	?	COMP	1.08E-07	2.15E-07	1.52E-07	?	?	N	B-84/11	-6.818	39.9	2.69E-09	5.39E-09	3.81E-09	-8.419	
DC-12	934.8	961.0	942.1	947.3	GR	MCCOY	FT	1.08E-08	1.08E-07	3.00E-08	?	1	N	B-86/02	-7.523	5.2	2.07E-09	2.07E-08	5.77E-09	-8.239	
DC-12	975.1	1000.4	978.7	994.9	GR	UMTANUM	FT	1.08E-10	1.06E-08	1.07E-09	?	1	N	B-86/02	-8.969	16.2	6.64E-12	6.64E-10	6.64E-11	-10.178	
DC-12	1018.3	1240.5	1018.3	1240.5	GR	?	COMP	5.38E-04	7.53E-04	6.36E-04	?	?	N	B-84/11	-3.197	222.2	2.42E-06	3.39E-06	2.86E-06	-5.543	
DC-12	1225.6	1240.5	1227.1	1232.0	GR	?	COMP	5.38E-04	7.53E-04	6.36E-04	?	?	N	B-84/11	-3.197	4.9	1.10E-04	1.54E-04	1.30E-04	-3.887	
DC-12	1244.8	1357.9	1244.8	1357.9	GR	?	COMP	ERR	ERR	1.07E-04	?	?	N	B-84/11	-3.969	113.1	ERR	ERR	9.50E-07	-6.022	
DC-12	1324.1	1357.9	1324.1	1357.9	GR	?	COMP	ERR	ERR	1.07E-04	?	?	N	B-84/11	-3.969	33.8	ERR	ERR	3.18E-06	-5.498	
DC-14	112.2	144.8	119.2	128.9	SM	ELEPHANT	IF	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	9.7	1.11E-07	1.11E-06	3.09E-07	-6.510	
DC-14	144.8	164.0	149.7	161.2	SM	RATTLE	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	11.5	9.35E-07	9.35E-06	2.61E-06	-5.584	
DC-14	205.7	234.1	213.7	232.9	SM	SELAH	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	19.2	5.60E-06	5.60E-05	1.56E-05	-4.806	
DC-14	268.2	276.5	270.7	275.5	SM	ASOTIN	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	4.8	2.24E-04	2.24E-03	6.25E-04	-3.204	
DC-14	277.4	281.0	279.2	281.0	SM	ASOTIN	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	1.8	5.97E-04	5.97E-03	1.67E-03	-2.778	
DC-14	281.9	295.4	288.0	294.1	SM	ASOTIN	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	6.1	1.76E-05	1.76E-04	4.92E-05	-4.308	
DC-14	295.4	330.1	296.0	329.2	WN	MABTON	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	33.2	3.24E-07	3.24E-06	9.04E-07	-6.044	
DC-14	364.5	370.9	365.8	370.0	WN	PRIEST	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	4.2	2.56E-04	2.56E-03	7.14E-04	-3.146	
DC-14	370.9	387.4	371.9	374.3	WN	PRIEST	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	2.4	4.48E-04	ERR	ERR	ERR	
DC-14	391.7	410.3	395.0	407.8	WN	ROZA	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	12.8	8.40E-05	8.40E-04	2.34E-04	-3.630	

IDENTIFIER			INPUT DATA												CALCULATED DATA						
	TEST INTERVAL		EFFECTIVE INTERVAL					TRANSMISSIVITY									EFFECTIVE CONDUCTIVITY				
TEST HOLE	TOP	BOTTOM	TOP	BOTTOM	GROUP	UNIT	BASALT STRUCTURE	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	LOG TRAN	EFFECTIVE THICKNESS	MIN	MAX	BG	LOG COND	COMMENTS
DC-14	451.1	462.1	455.4	458.7	WN	FRENCH	IF	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	3.3	3.26E-05	ERR	ERR	ERR	
DC-14	480.1	497.4	487.7	496.2	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	8.5	1.26E-05	1.26E-04	3.53E-05	-4.452	
DC-14	499.9	520.6	512.1	516.9	WN	FRENCH	IF	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	4.8	2.24E-05	ERR	ERR	ERR	
DC-14	554.7	571.5	559.6	564.8	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	5.2	2.07E-05	2.07E-04	5.77E-05	-4.239	
DC-14	575.5	604.4	575.5	597.4	WN	FRENCH	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	21.9	4.91E-05	4.91E-04	1.37E-04	-3.863	
DC-14	646.2	681.2	653.5	675.4	GR	?	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	21.9	4.91E-06	4.91E-05	1.37E-05	-4.863	
DC-14	717.8	733.0	721.8	729.1	GR	?	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	7.3	1.47E-08	1.47E-07	4.11E-08	-7.386	
DC-14	734.6	766.0	747.1	754.7	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	7.6	1.41E-07	1.41E-06	3.95E-07	-6.404	
DC-14	809.9	876.0	819.0	871.1	GR	?	IF	1.07E-09	1.08E-07	1.08E-08	?	1	N	B-84/11	-7.969	52.1	2.06E-11	2.06E-09	2.06E-10	-9.685	
DC-14	841.2	876.0	861.4	871.1	GR	?	FT	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-86/02	-8.523	9.7	1.11E-10	1.11E-09	3.09E-10	-9.510	
DC-14	877.8	906.8	882.1	900.1	GR	?	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	18.0	5.97E-09	5.97E-08	1.67E-08	-7.778	
DC-14	932.7	958.3	936.3	956.5	GR	UMTANUM	FT	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-86/02	-4.523	20.2	5.32E-07	5.32E-06	1.49E-06	-5.828	
DC-14	969.3	983.0	975.4	979.9	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	4.5	2.39E-07	2.39E-06	6.67E-07	-6.176	
DC-14	993.6	1016.5	999.1	1015.3	GR	?	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	16.2	6.64E-07	6.64E-06	1.85E-06	-5.732	
DC-15	83.8	104.5	86.6	94.8	SM	LEVEY	IB	ERR	ERR	1.07E-04	?	1	N	B-84/11	-3.969	8.2	ERR	ERR	1.31E-05	-4.882	
DC-15	127.1	151.2	133.5	150.6	SM	RATTLE	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	17.1	6.29E-06	6.29E-05	1.75E-05	-4.756	
DC-15	182.6	192.0	183.2	188.1	SM	SELAH	IB	1.08E-06	1.07E-04	1.08E-05	?	1	N	B-84/11	-4.969	4.9	2.19E-07	2.19E-05	2.19E-06	-5.659	
DC-15	191.7	201.2	192.6	197.5	SM	ESQUATZEL	IF	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	4.9	2.19E-07	2.19E-06	6.12E-07	-6.213	
DC-15	217.3	239.9	219.8	239.9	SM	COLD	IB	3.00E-05	3.10E-05	3.10E-05	U	0	Y	B-83/08	-4.509	20.1	1.49E-06	1.54E-06	1.54E-06	-5.812	
DC-15	305.7	326.7	309.7	324.3	WN	MABTON	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	14.6	7.36E-07	7.36E-06	2.05E-06	-5.687	
DC-15	350.2	362.4	350.5	359.4	WN	PRIEST	IF	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-84/11	-6.523	8.9	1.21E-08	1.21E-07	3.37E-08	-7.472	
DC-15	371.6	394.1	375.5	391.7	WN	ROZA	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	16.2	6.64E-05	6.64E-04	1.85E-04	-3.732	
DC-15	413.6	423.7	417.3	420.3	WN	ROZA	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	3.0	3.58E-05	3.58E-04	1.00E-04	-4.000	
DC-15	425.2	449.0	428.9	431.3	WN	FRENCH	IF	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	2.4	4.48E-07	4.48E-06	1.25E-06	-5.903	
DC-15	451.4	459.0	452.6	458.1	WN	FRENCH	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	5.5	1.95E-04	1.95E-03	5.45E-04	-3.263	
DC-15	458.7	473.4	463.3	467.9	WN	FRENCH	IF	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	4.6	2.34E-05	2.34E-04	6.52E-05	-4.186	
DC-15	469.4	485.5	475.2	481.3	WN	FRENCH	IF	ERR	ERR	1.08E-03	?	1	N	B-84/11	-2.969	6.1	ERR	ERR	1.76E-04	-3.754	
DC-15	528.8	558.7	530.0	557.8	WN	FRENCH	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	27.8	3.87E-07	3.87E-06	1.08E-06	-5.967	
DC-15	559.0	575.2	561.4	573.0	WN	FRENCH	IF	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	11.6	9.27E-05	9.27E-04	2.59E-04	-3.587	
DC-15	639.5	670.3	641.3	661.4	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	20.1	5.35E-08	5.35E-07	1.49E-07	-6.826	
DC-15	678.8	714.1	684.9	698.9	GR	?	FT	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-86/02	-2.523	14.0	7.68E-05	7.68E-04	2.14E-04	-3.669	
DC-15	723.0	758.0	744.3	747.4	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	3.1	3.47E-07	3.47E-06	9.68E-07	-6.014	
DC-15	759.6	776.6	768.1	775.4	GR	?	FT	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-86/02	-3.523	7.3	1.47E-05	1.47E-04	4.11E-05	-4.386	
DC-15	808.0	823.0	810.5	811.7	GR	?	FT	ERR	1.07E-04	ERR	?	2	N	B-86/02	ERR	1.2	ERR	8.96E-05	ERR	ERR	
DC-15	857.4	874.2	862.0	873.3	GR	?	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	11.3	9.51E-08	9.51E-07	2.65E-07	-6.576	
DC-15	902.5	948.8	909.8	946.4	GR	?	FT	1.07E-04	ERR	ERR	?	1	N	B-86/02	ERR	36.6	2.94E-06	ERR	ERR	ERR	
DC-15	989.1	1004.6	991.2	1002.8	GR	?	FT	1.08E-06	1.07E-04	1.08E-05	?	1	N	B-86/02	-4.969	11.6	9.27E-08	9.27E-06	9.27E-07	-6.033	
DC-15	1006.1	1040.0	1016.2	1031.1	GR	?	FT	1.07E-04	ERR	ERR	?	1	N	B-86/02	ERR	14.9	7.21E-06	ERR	ERR	ERR	
DC-15	1100.6	1108.3	1102.2	1106.1	GR	?	FT	ERR	1.08E-08	ERR	?	1	N	B-86/02	ERR	3.9	ERR	2.76E-09	ERR	ERR	
DC-15	1140.3	1172.0	1141.5	1168.3	GR	?	FT	1.08E-08	1.08E-05	3.00E-07	?	1	N	B-86/02	-6.523	26.8	4.01E-10	4.01E-07	1.12E-08	-7.951	
DC-15	1261.3	1293.3	1267.1	1286.3	GR	?	IF	1.08E-06	1.07E-04	1.08E-05	?	1	N	B-84/11	-4.969	19.2	5.60E-08	5.60E-06	5.60E-07	-6.252	
DC-16A	203.6	254.5	208.5	246.3	SM	RATTLE	IB	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	37.8	2.84E-06	ERR	ERR	ERR	
DC-16A	282.9	311.2	287.1	306.3	SM	SELAH	IB	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	19.2	5.60E-07	5.60E-06	1.56E-06	-5.806	
DC-16A	329.2	369.4	337.1	367.0	SM	COLD	IB	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-84/11	-6.523	29.9	3.60E-09	3.60E-08	1.00E-08	-7.999	
DC-16A	425.2	477.9	432.5	461.8	WN	MABTON	IB	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	29.3	3.67E-06	3.67E-05	1.02E-05	-4.990	
DC-16A	515.1	526.7	520.6	521.2	WN	PRIEST	IF	1.08E-07	1.08E-05	1.08E-06	?	1	N	B-84/11	-5.969	0.6	1.79E-07	1.79E-05	1.79E-06	-5.747	
DC-16A	536.4	557.2	539.8	544.1	WN	ROZA	IF	1.07E-02	1.07E-01	3.00E-02	?	1	N	B-84/11	-1.523	4.3	2.50E-03	2.50E-02	6.98E-03	-2.156	
DC-16A	576.7	609.6	593.4	596.2	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	2.8	3.84E-04	ERR	ERR	ERR	
DC-16A	641.6	657.1	647.7	651.1	WN	FRENCH	IF	1.08E-06	1.07E-04	1.08E-05	?	1	N	B-84/11	-4.969	3.4	3.16E-07	3.16E-05	3.16E-06	-5.500	
DC-16A	670.9	689.2	681.5	684.0	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	2.5	4.30E-04	ERR	ERR	ERR	

IDENTIFIER			INPUT DATA												CALCULATED DATA						
	TEST INTERVAL		EFFECTIVE INTERVAL					TRANSMISSIVITY									EFFECTIVE CONDUCTIVITY				
TEST HOLE	TOP	BOTTOM	TOP	BOTTOM	GROUP	UNIT	BASALT STRUCTURE	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	LOG TRAN	EFFECTIVE THICKNESS	MIN	MAX	BG	LOG COND	COMMENTS
DC-16A	690.7	722.7	694.3	722.7	WN	FRENCH	IF	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	28.4	3.79E-07	3.79E-06	1.06E-06	-5.976	
DC-16A	754.7	780.0	762.2	780.0	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	17.8	6.04E-05	ERR	ERR	ERR	
DC-16A	787.9	802.2	792.2	802.2	WN	FRENCH	IF	1.07E-04	ERR	ERR	?	1	N	B-84/11	ERR	10.0	1.08E-05	ERR	ERR	ERR	
DC-16A	814.1	860.1	824.8	829.1	GR	?	FT	1.07E-04	ERR	ERR	?	1	N	B-86/02	ERR	4.3	2.50E-05	ERR	ERR	ERR	
DC-16A	864.1	897.9	868.7	885.4	GR	?	FT	1.08E-07	1.07E-04	3.00E-06	?	1	N	B-86/02	-5.523	16.7	6.44E-09	6.44E-06	1.80E-07	-6.746	
DC-16A	905.3	940.6	908.9	929.0	GR	COHASSETT	FT	1.08E-08	1.07E-04	1.08E-06	?	1	N	B-86/02	-5.969	20.1	5.35E-10	5.35E-06	5.35E-08	-7.272	
DC-16A	941.2	992.4	941.2	992.4	GR	COHASSETT	CE	ERR	ERR	2.58E-07	?	0	Y	TI-166	-6.588	51.2	ERR	ERR	5.04E-09	-8.298	
DC-16A	961.3	991.8	961.3	991.8	GR	COHASSETT	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-86/02	-11.523	30.5	3.52E-14	3.52E-13	9.84E-14	-13.007	
DC-16A	991.8	1024.1	999.7	1019.3	GR	COHASSETT	FB	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-86/02	-8.523	19.6	5.48E-11	5.48E-10	1.53E-10	-9.815	
DC-16A	1031.0	1065.3	ERR	ERR	GR	?	?	1.08E-11	1.08E-10	3.00E-11	?	1	N	B-84/11	-10.523	ERR	ERR	ERR	ERR	ERR	
DC-16A	1070.5	1091.7	ERR	ERR	GR	MCCOY	IF	1.08E-08	1.08E-05	3.00E-07	?	1	N	B-84/11	-6.523	ERR	ERR	ERR	ERR	ERR	
DC-16A	1104.3	1136.3	1104.9	1131.4	GR	UNTANUM	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	26.5	4.06E-08	4.06E-07	1.13E-07	-6.946	
DC-16A	1137.2	1177.7	1137.2	1177.7	GR	UNTANUM	CE	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-86/02	-8.523	40.5	2.65E-11	2.65E-10	7.41E-11	-10.130	
DC-16A	1193.0	1231.1	1202.4	1208.5	GR	?	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	6.1	1.77E-08	1.76E-07	4.92E-08	-7.308	
DC-16B	429.8	487.7	429.8	478.5	WN	MABTON	IB	1.08E-05	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	48.7	2.21E-07	2.21E-05	6.16E-06	-5.210	
MCGEE	247.5	250.5	247.5	250.5	WN	PRIEST	IF	1.07E-02	1.07E-01	3.00E-02	?	1	N	B-84/11	-1.523	3.0	3.58E-03	3.58E-02	1.00E-02	-2.000	
MCGEE	281.9	285.0	281.9	285.0	WN	ROZA	FT	1.07E-02	1.07E-01	3.00E-02	?	1	N	B-84/11	-1.523	3.1	3.47E-03	3.47E-02	9.68E-03	-2.014	
MCGEE	313.6	333.1	326.1	332.2	WN	ROZA	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	6.1	1.76E-04	ERR	ERR	ERR	
MCGEE	335.0	355.7	339.6	350.5	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	11.9	9.03E-05	ERR	ERR	ERR	
MCGEE	402.5	420.0	405.7	417.6	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	11.9	9.03E-05	ERR	ERR	ERR	
MCGEE	427.9	438.9	429.5	433.4	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	3.9	2.76E-04	ERR	ERR	ERR	
MCGEE	439.8	452.0	442.9	449.6	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	6.7	1.60E-04	ERR	ERR	ERR	
MCGEE	481.7	512.1	486.8	495.3	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	8.5	1.26E-04	ERR	ERR	ERR	
MCGEE	510.2	533.4	516.6	523.6	WN	FRENCH	IF	1.08E-03	ERR	ERR	?	1	N	B-84/11	ERR	7.0	1.54E-04	ERR	ERR	ERR	
MCGEE	538.0	562.1	555.0	559.9	WN	FRENCH	IF	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	4.9	2.19E-07	2.19E-06	6.12E-07	-6.213	
MCGEE	562.7	591.9	562.7	591.9	GR	VANTAGE	IB	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	29.2	3.68E-08	3.68E-07	1.03E-07	-6.988	
MCGEE	592.5	607.2	592.5	596.0	GR	?	FT	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	3.5	3.07E-05	3.07E-04	8.57E-05	-4.067	
MCGEE	606.9	637.6	608.4	630.9	GR	ROCKY	FT	1.08E-05	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	22.5	4.78E-07	4.78E-05	1.33E-05	-4.875	
MCGEE	648.6	670.3	657.8	663.9	GR	ROCKY	FB	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-84/11	-5.523	6.1	1.76E-07	1.76E-06	4.92E-07	-6.308	
MCGEE	666.9	712.3	670.6	709.0	GR	COHASSETT	FT	8.60E-05	3.01E-04	1.61E-04	?	1	N	B-84/11	-3.793	38.4	2.24E-06	7.84E-06	4.19E-06	-5.378	
MCGEE	729.4	769.3	737.6	760.2	GR	COHASSETT	FB	6.45E-07	1.83E-06	1.09E-06	?	1	N	B-84/11	-5.964	22.6	2.85E-08	8.10E-08	4.81E-08	-7.318	
MCGEE	798.6	841.2	798.6	835.8	GR	MCCOY	FT	ERR	ERR	3.23E-06	?	1	N	B-84/11	-5.491	37.2	ERR	ERR	8.67E-08	-7.062	
MCGEE	900.4	951.9	921.7	943.7	GR	UNTANUM	FB	ERR	ERR	1.08E-06	?	1	N	B-84/11	-5.969	22.0	ERR	ERR	4.89E-08	-7.311	
RRL-02	415.7	470.6	426.4	441.7	WN	MABTON	IB	1.08E-08	1.08E-07	3.00E-08	?	1	N	B-84/11	-7.523	15.3	7.03E-10	7.03E-09	1.96E-09	-8.708	
RRL-02	479.8	522.4	514.8	522.4	WN	PRIEST	FT	1.07E-04	1.08E-03	3.00E-04	?	1	N	B-84/11	-3.523	7.6	1.41E-05	1.41E-04	3.95E-05	-4.404	
RRL-02	528.8	540.4	533.1	536.1	WN	ROZA	FT	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	3.0	3.58E-04	3.58E-03	1.00E-03	-3.000	
RRL-02	581.3	677.3	585.8	677.3	WN	FRENCH	COMP	1.08E-03	1.07E-02	3.00E-03	?	1	N	B-84/11	-2.523	91.5	1.17E-05	1.17E-04	3.28E-05	-4.484	
RRL-02	684.0	805.9	691.9	799.8	WN	FRENCH	COMP	1.08E-03	1.07E-02	3.00E-03	?	2	N	B-84/11	-2.523	107.9	9.96E-06	9.96E-05	2.78E-05	-4.556	
RRL-02	812.3	826.9	814.4	819.9	GR	VANTAGE	IB	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	5.5	1.95E-07	1.95E-06	5.45E-07	-6.263	
RRL-02	828.8	887.9	829.1	865.6	GR	?	COMP	1.08E-05	1.07E-04	3.00E-05	?	1	N	B-84/11	-4.523	36.5	2.95E-07	2.95E-06	8.22E-07	-6.085	
RRL-02	893.7	908.9	893.7	908.9	GR	ROCKY	CE	1.08E-11	1.08E-10	3.00E-11	?	1	N	B-86/02	-10.523	15.2	7.07E-13	7.07E-12	1.97E-12	-11.705	
RRL-02	908.6	920.5	912.3	918.1	GR	COHASSETT	FT	1.00E-08	6.67E-08	4.51E-08	D	0	Y	B-83/01	-7.345	5.8	1.72E-09	1.15E-08	7.78E-09	-8.109	
RRL-02	931.8	966.8	931.8	966.8	GR	COHASSETT	CE	1.94E-12	1.83E-10	1.83E-10	D	0	Y	B-84/03	-9.738	35.0	5.53E-14	5.22E-12	5.22E-12	-11.282	
RRL-02	967.7	988.8	967.7	988.8	GR	COHASSETT	CE	3.40E-12	5.90E-11	4.70E-12	D	0	Y	B-82/11	-11.328	21.1	1.61E-13	2.80E-12	2.23E-13	-12.652	
RRL-02	989.7	1019.3	989.7	1002.2	GR	COHASSETT	FB	2.18E-04	9.11E-04	8.28E-04	D	0	Y	TI-095	-3.082	12.5	1.74E-05	7.29E-05	6.62E-05	-4.179	
RRL-02	1026.6	1055.2	1031.1	1047.0	GR	?	COMP	1.08E-10	1.07E-09	3.00E-10	?	1	N	B-84/11	-9.523	15.9	6.76E-12	6.76E-11	1.89E-11	-10.724	
RRL-02	1056.4	1074.1	1059.2	1064.7	GR	MCCOY	FT	1.08E-10	1.08E-09	3.00E-10	?	1	N	B-86/02	-9.523	5.5	1.95E-11	1.96E-10	5.45E-11	-10.263	
RRL-02	1087.5	1152.4	1096.4	1144.2	GR	UNTANUM	FT	2.62E-04	5.17E-04	5.16E-04	D	0	Y	B-82/11	-3.287	47.8	5.48E-06	1.08E-05	1.08E-05	-4.967	
RRL-02	1087.5	1095.1	1087.5	1095.1	GR	MCCOY	CE	1.08E-11	1.08E-10	3.00E-11	?	1	N	B-86/02	-10.523	7.6	1.41E-12	1.41E-11	3.95E-12	-11.404	
RRL-02	1146.7	1159.8	1146.7	1159.8	GR	UNTANUM	CE	9.70E-12	2.60E-10	1.70E-11	D	0	Y	B-82/11	-10.770	13.1	7.40E-13	1.98E-11	1.30E-12	-11.887	

IDENTIFIER			INPUT DATA												CALCULATED DATA						
	TEST INTERVAL		EFFECTIVE INTERVAL					TRANSMISSIVITY									EFFECTIVE CONDUCTIVITY				
TEST HOLE	TOP	BOTTOM	TOP	BOTTOM	GROUP	UNIT	BASALT STRUCTURE	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	LOG TRAN	EFFECTIVE THICKNESS	MIN	MAX	BG	LOG COND	COMMENTS
RRL-02	1152.4	1166.5	1163.7	1165.6	GR	UMTANUM	CE	2.20E-04	9.47E-04	9.46E-04	D	0	Y	B-83/02	-3.024	1.9	1.16E-04	4.98E-04	4.98E-04	-3.303	
RRL-02	1169.5	1185.4	1170.1	1177.7	GR	UMTANUM	FB	1.07E-04	1.08E-03	3.00E-04	D	1	N	B-86/02	-3.523	7.6	1.41E-05	1.41E-04	3.95E-05	-4.404	
RRL-06	640.7	652.6	647.1	651.1	WN	FRENCH	TB	1.08E-11	1.08E-10	3.00E-11	?	1	N	B-84/11	-10.523	4.0	2.69E-12	2.69E-11	7.50E-12	-11.125	
RRL-06	929.0	951.3	942.7	947.6	GR	COHASSETT	FT	1.08E-11	1.09E-10	3.00E-11	?	1	N	B-84/11	-10.523	4.9	2.19E-12	2.19E-11	6.12E-12	-11.213	
RRL-06	940.0	951.3	942.7	947.6	GR	COHASSETT	FT	1.08E-11	1.08E-10	3.00E-11	?	1	N	B-86/02	-10.523	4.9	2.19E-12	2.19E-11	6.12E-12	-11.213	
RRL-06	953.7	1015.6	953.7	1015.6	GR	COHASSETT	CE	1.07E-14	1.08E-11	3.00E-13	?	1	N	B-86/02	-12.523	61.9	1.74E-16	1.74E-13	4.85E-15	-14.315	
RRL-06	1015.0	1041.2	1018.9	1039.4	GR	COHASSETT	FB	1.08E-08	1.08E-07	3.00E-08	?	1	N	B-86/02	-7.523	20.5	5.24E-10	5.24E-09	1.46E-09	-8.835	
RRL-06	1103.7	1125.6	1103.7	1125.6	GR	MCCOY	CE	1.07E-13	1.08E-10	3.00E-12	?	1	N	B-86/02	-11.523	21.9	4.91E-15	4.91E-12	1.37E-13	-12.863	
RRL-06	1130.2	1165.3	1132.3	1161.0	GR	UMTANUM	FT	1.08E-07	1.08E-06	3.00E-07	?	1	N	B-86/02	-6.523	29.7	3.75E-09	3.75E-08	1.05E-08	-7.981	
RRL-06	1166.5	1200.3	1166.5	1200.3	GR	UMTANUM	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-86/02	-11.523	33.8	3.18E-14	3.18E-13	8.88E-14	-13.052	
RRL-06	1200.6	1231.4	1202.7	1220.7	GR	UMTANUM	FB	1.07E-09	1.08E-08	3.00E-09	?	1	N	B-86/02	-8.523	18.0	5.97E-11	5.97E-10	1.67E-10	-9.778	
RRL-14	937.9	959.2	939.4	949.8	GR	COHASSETT	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	10.4	1.03E-07	1.03E-06	2.88E-07	-6.540	
RRL-14	957.1	1009.8	957.1	1009.8	GR	COHASSETT	CE	1.07E-12	1.08E-11	3.00E-12	?	1	N	B-86/02	-11.523	52.7	2.04E-14	2.04E-13	5.69E-14	-13.245	
RRL-14	1004.0	1037.2	1012.2	1035.7	GR	COHASSETT	FB	1.08E-07	1.07E-04	3.00E-06	?	1	N	B-86/02	-5.523	23.5	4.57E-09	4.57E-06	1.28E-07	-6.894	
RRL-14	1132.3	1162.5	1135.4	1155.2	GR	UMTANUM	FT	1.08E-06	1.08E-05	3.00E-06	?	1	N	B-86/02	-5.523	19.8	5.43E-08	5.43E-07	1.52E-07	-6.820	
RRL-14	1164.0	1190.2	1164.0	1190.2	GR	UMTANUM	CE	1.07E-13	1.07E-12	3.00E-13	?	1	N	B-86/02	-12.523	26.2	4.10E-15	4.10E-14	1.15E-14	-13.941	
RRL-14	1180.8	1204.6	1193.6	1199.7	GR	UMTANUM	FB	1.08E-08	1.08E-07	3.00E-08	?	1	N	B-86/02	-7.523	6.1	1.76E-09	1.76E-08	4.92E-09	-8.308	
S11-E12A	68.6	86.0	72.5	80.8	SM	LEVEY	IB	ERR	ERR	2.15E-05	?	0	Y	LD-27	-4.668	8.3	ERR	ERR	2.59E-06	-5.587	

MULTIPLE BOREHOLE TEST DATA

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MULTIPLE BOREHOLE TEST DATA **PAGE 1A**

IDENTIFIER						INPUT DATA															
	PROD INTERVAL			OBS INTERVAL		PROD STRATA						OBS STRATA				TRANSMISSIVITY			STORATIVITY		
PROD HOLE	TOP	BOTTOM	OBS HOLE	TOP	BOTTOM	GROUP	UNIT	STRUCTURE	TEST TYPE	FLOWRATE Q	DIST R	GROUP	UNIT	STRUCTURE	AQUIF THICK	MIN	MAX	BG	MIN	MAX	BG
DC-07	ERR	ERR	DC-8	ERR	ERR	GR	MCCOY	IF	PUMP	ERR	ERR	GR	MCCOY	IF	ERR	1.00E-07	1.00E-06	3.00E-07	ERR	ERR	4.00E-05
ENYEART	ERR	ERR	FORD	ERR	ERR	WN	PRIEST	IF	PUMP	ERR	ERR	WN	PRIEST	IF	ERR	1.00E-02	1.00E-01	3.00E-02	1.00E-04	1.00E-03	3.00E-04
FORD	ERR	ERR	ENYEART	ERR	ERR	SM	PRIEST	IF	PUMP	ERR	ERR	WN	PRIEST	IF	ERR	1.00E-02	1.00E-01	3.00E-02	ERR	ERR	1.00E-04
FORD	ERR	ERR	OBRIAN	ERR	ERR	SM	PRIEST	IF	PUMP	ERR	ERR	WN	PRIEST	IF	ERR	1.00E-01	1.00E+00	3.00E-01	ERR	ERR	1.00E-04

MULTIPLE BOREHOLE TEST DATA **PAGE 1B** 26-Aug-86

IDENTIFIER													
	PROD INTERVAL			OBS INTERVAL			VERTICAL CONDUCTIVITY						
PROD HOLE	TOP	BOTTOM	OBS HOLE	TOP	BOTTOM	DIST	MIN	MAX	BG	MEAS TYPE	RATING	QA	REFERENCE	COMMENTS
DC-07	ERR	ERR	DC-8	ERR	ERR	ERR	ERR	ERR	ERR	U	0	Y	?	
ENYEART	ERR	ERR	FORD	ERR	ERR	ERR	ERR	ERR	ERR	U	0	N	?	
FORD	ERR	ERR	ENYEART	ERR	ERR	ERR	ERR	ERR	ERR	U	0	N	?	
FORD	ERR	ERR	OBRIAN	ERR	ERR	ERR	ERR	ERR	ERR	U	0	N	?	

GEOCHEMICAL DATA

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GEOCHEMICAL TEST DATA

PAGE 1A

IDENTIFIER											MAJOR CATIONS					MAJOR ANIONS			
	TEST INTERVAL						degrees(C)	(umho/cm)	(mv)	(su)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
TEST HOLE	TOP	BOTTOM	SAMPLING TYPE	GROUP	UNIT	BASALT STRUCTURE	TEMP	COND	ORP	pH	K	Na	Ca	Mg	SiO2	FIELD ALK AS CACO3	SO4	Cl	F
RSL-2	1574	1714	AIRLIFT	WN	PR	NA	6.5	910	-160	9.14	20.90	162	2.0	0.2	29.8	190	1.60	133.00	8.50
RSL-2	1735	1773	AIRLIFT	WN	RZ	NA	21.8	683	-385	9.32	15.50	140	1.9	0.1	33.7	155	2.00	123.00	9.00
RRL-2	2244	2644	AIRLIFT	WN	FR	NA	29.1	1408	NA	8.30	35.40	284	9.5	0.2	26.8	93	21.00	346.00	15.00
RRL-2	2719	2913	AIRLIFT	GR	U.GR/RC	NA	26.9	1856	-405	8.76	25.50	377	2.9	0.1	35.0	86	1.50	508.00	21.60
RRL-2	3247	3344	WINDMILL	GR	CH	FB	23.4	1616	-290	9.71	13.90	337	2.2	0.1	44.6	165	4.20	405.00	20.00
RRL-2	3247	3344	WINDMILL	GR	CH	FB	19.5	1632	-365	9.60	13.50	352	2.4	0.1	49.4	149	0.96	418.00	14.00
RRL-2	3568	3781	WINDMILL	GR	UM	FT	29.4	1740	-220	9.41	9.51	358	1.7	0.1	48.3	136	1.70	450.00	18.10
RRL-2	3781	3827	WINDMILL	GR	UM	NA	25.9	NA	NA	9.34	8.41	333	2.8	0.2	35.8	132	3.60	384.00	17.20
RRL-2	3837	3889	WINDMILL	GR	HIGH MG	NA	22.3	1747	-300	9.78	5.82	361	1.8	0.1	37.2	135	2.40	455.00	20.10
DC-16A	668	835	PUMP	SM	RR	IB	21.0	494	-330	8.32	4.20	104	10.8	4.9	22.2	224	22.10	3.62	0.48
DC-16A	928	1021	PUMP	SM	SELAH	IB	24.1	293	-245	7.25	6.40	47	14.9	3.5	9.9	148	4.43	3.58	0.47
DC-16A	1395	1568	PUMP	SM	MAB	IB	25.4	340	-310	8.86	11.60	69	6.0	1.5	33.9	184	4.60	5.10	0.70
DC-16A	1760	1828	PUMP	WN	PR/RZ	COMP	28.7	795	-450	9.14	17.00	165	2.0	-0.1	38.3	150	2.00	146.00	9.50
DC-16A	1892	2000	WINDMILL	WN	L.RZ/U.FR	COMP	21.5	878	-405	9.43	18.20	180	1.7	-0.1	36.1	151	1.200	170.00	9.90
DC-16A	2105	2156	WINDMILL	WN	FR	COMP	23.8	697	-335	9.39	20.30	142	1.7	-0.1	40.8	144	1.900	110.00	13.00
DC-16A	2201	2261	WINDMILL	WN	FR	COMP	22.4	1236	-425	9.44	34.40	232	4.8	-0.1	37.7	103	6.700	308.00	10.90
DC-16A	2266	2371	WINDMILL	WN	FR	COMP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-16A	2266	2371	AIRLIFT	WN	FR	COMP	31.6	1230	-170	9.07	30.20	217	3.9	-0.1	33.7	108	6.100	263.00	12.30
DC-16A	2476	2559	PUMP	WN	FR	COMP	34.2	1673	NA	9.11	32.00	324	3.9	-0.1	37.9	90	2.300	442.00	24.10
DC-16A	2585	2632	PUMP	WN	FR	COMP	26.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-16A	2585	2632	PUMP	WN	FR	COMP	36.0	1663	-375	9.30	29.40	323	4.4	-0.1	34.0	126	2.600	451.00	26.10
DC-16A	2670	2822	PUMP	WN/GR	VT/U.GR	COMP	23.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-16A	2671	2730	WINDMILL	WN/GR	VT/U.GR	COMP	23.4	1738	-390	9.46	20.00	346	2.7	-0.1		150	8.400	414.00	27.60
DC-16A	2836	2946	WINDMILL	GR	RC	COMP	25.0	1746	-350	9.51	24.30	355	2.6	-0.1	45.90	141	5.500	422.00	26.60
DC-1	362	416	SWAB	SM	POM	MIXED	NA	314	NA	8.10	8.80	60	4.7	1.2	11.00	122	19.000	11.00	0.50
DC-1	362	712	PUMP	SM	POM/UMAT	MIXED	NA	351	NA	8.50	8.00	79	2.2	0.3	25.00	180	0.400	3.90	1.00
DC-1	362	890	PUMP	SM/WN	POM/MAB	MIXED	NA	580	NA	9.62	9.60	124	2.0	0.4	34.00	168		68.00	10.00
DC-1	362	1190	PUMP	SM/WN	POM/U.RZ	MIXED	NA	664	NA	9.6	10.00	142	2.4	0.1	37.00	171	1.800	85.00	13.00
DC-1	362	2242	PUMP	SM/GR	POM/RC FT	MIXED	NA	707	NA	9.6	11.00	141	2.5	0.1	38.00	171	5.600	83.00	15.00
DC-1	450	530	SWAB	SM	POM/ESQ FT	MIXED	NA	353	NA	8.90	8.40	77	2.2	0.3	17.00	161	12.000	7.70	0.80
DC-1	540	620	SWAB	SM	ESQ/CC	MIXED	NA	344	NA	8.60	7.80	79	2.1	0.3	21.00	180	NA	4.20	1.00
DC-1	636	726	SWAB	SM	CC/UMAT	MIXED	NA	402	NA	8.90	9.90	90	1.7	0.4	26.00	192	NA	13.00	1.70
DC-1	720	810	SWAB	SM	UMAT	IF	NA	552	NA	9.30	14.00	114	1.7	0.4	27.00	182	1.600	49.00	7.50
DC-1	980	1120	SWAB	WN	PR		NA	773	NA	9.70	10.00	164	0.9	0.4	42.00	157	2.000	120.00	16.00
DC-1	1090	1280	SWAB	WN/ROZA	L.PR/RZ		NA	904	NA	10.48	12.00	177	5.8	0.1	42.00	153	10.000	120.00	20.00
DC-1	1330	1520	SWAB	WN	L. RZ/FR		NA	839	NA	9.94	15.00	163	5.0	0.1	38.00	168	12.000	110.00	20.00
DC-1	2600	2790	SWAB	GR	CH FB/DOWN	FB/MIXED	NA	408	NA	9.10	8.00	87	1.2	0.2	22.00	179	3.600	13.00	2.00
DC-1	3146	3236	SWAB	GR	UM FB/DOWN	FB/MIXED	NA	867	NA	10.12	3.30	182	0.8	NA	54.00	208	13.000	98.00	21.00
DC-1	3166	3196	SWAB	GR	UM FB/DOWN	FB/MIXED	NA	860	NA	9.78	3.90	181	0.7	0.1	56.00	208	12.000	94.00	20.00
DC-1	3206	3246	SWAB	GR			NA	852	NA	9.72	5.90	176	0.6	0.1	49.00	202	10.000	98.00	20.00
DC-1	3320	3451	SWAB	GR			NA	800	NA	9.70	4.70	166	0.2	0.1	29.00	180	14.000	90.00	18.10
DC-1	4080	4283	SWAB	GR			NA	630	NA	9.10	3.00	134	0.2	NA	31.00	161	21.000	68.90	11.00

IDENTIFIER			TRACERS						STABLE ISOTOPES					RADIOMETRIC ISOTOPES		GASES				
TEST HOLE	TEST INTERVAL TOP	TEST INTERVAL BOTTOM	(mg/l) TOC	(mg/l) B	(mg/l) Zn	(mg/l) Fe	(mg/l) Mn	(mg/l) Mo	(per mil) dO-18	(per mil) dD	(per mil) bicarb dC-13(b)	(per mil) methane dC-13(m)	(per mil) dS-34	(PMC) C-14	(Tu) H-3	(mol %) CH4	(mol %) N2	(mol %) Ar	(mol %) H2	(mol %) CO2
RRL-2	1574	1714	5.49	0.380	0.05	6.40	0.083	0.10	-17.0	-134	NA	NA	NA	NA	1.19	NA	NA	NA	NA	NA
RRL-2	1735	1773	6.08	0.360	-0.02	0.36	0.010	0.12	-16.0	-136	8.5	NA	NA	1.2	0.98	83.3	16.20	0.25	0.22	NA
RRL-2	2244	2644	67.99	1.100	-0.01	0.11	0.020	0.05	-13.2	-120	-0.3	NA	2.5	22.8	6.34	NA	NA	NA	NA	NA
RRL-2	2719	2913	2.65	2.640	-0.01	0.82	0.040	0.13	-11.5	-114	15.4	NA	1.8	24.3	0.90	NA	NA	NA	NA	NA
RRL-2	3247	3344	11.70	3.510	-0.01	0.13	0.005	0.28	-11.6	-116	15.3	NA	7.8	10.2	4.44	97.8	2.00	0.03	0.09	NA
RRL-2	3247	3344	2.81	2.910	-0.01	0.08	0.004	0.29	-10.8	-112	19.7	NA	11.2	8.3	0.79	98.7	1.30	0.02	0.02	NA
RRL-2	3568	3781	6.14	3.480	-0.01	0.07	0.001	0.28	-11.2	-110	16.9	-37.76	2.1	6.3	0.86	97.5	2.00	0.04	0.16	NA
RRL-2	3781	3827	19.90	3.120	0.02	0.13	0.008	0.24	NA	NA	NA	-38.35	NA	NA	NA	96.2	3.60	0.06	0.02	NA
RRL-2	3837	3899	4.68	3.500	-0.01	0.06	0.004	0.26	-11.1	-114	16.4	-38.28	5.8	11.2	0.68	98.2	1.70	0.03	0.02	NA
DC-16A	668	835	28.48	-0.02	-0.02	0.08	0.018	-0.02	-17.9	-142	-11.1	NA	-1.2	20.2	3.01	NA	NA	NA	NA	NA
DC-16A	928	1021	3.41	-0.02	-0.02	0.07	0.029	-0.02	-18.2	-144	-14.3	NA	33.1	20.3	1.45	-0.0	98.50	1.20	-0.01	0.30
DC-16A	1395	1568	9.74	0.05	-0.01	0.09	NA	-0.02	-18.3	-145	-11.8	NA	8.6	7.7	0.92	9.9	88.50	1.10	-0.01	0.41
DC-16A	1760	1828	8.44	0.50	-0.01	0.10	-0.003	0.15	-16.4	-138	9.4	-44.88	7.9	4.7	0.85	92.4	7.40	0.14	-0.01	0.03
DC-16A	1892	2000	3.55	0.60	-0.01	0.07	NA	0.20	-16.0	-136	10.7	NA	NA	3.2	0.40	94.4	5.48	0.13	0.02	0.01
DC-16A	2105	2156	4.91	0.63	-0.01	0.05	NA	0.10	-16.4	-137	-2.7	-63.99	8.9	5.0	0.43	69.0	30.20	0.46	0.18	0.12
DC-16A	2201	2261	8.61	0.61	-0.01	0.07	-0.003	0.13	-14.8	-124	5.4	-51.82	9.3	16.1	0.46	96.2	3.58	0.09	-0.01	0.01
DC-16A	2266	2371	NA	NA	NA	NA	NA	NA	NA	NA	NA	-52.88	NA	NA	NA	92.9	6.05	0.12	0.04	-0.01
DC-16A	2266	2371	11.18	0.54	-0.01	1.81	0.080	0.04	-14.4	-124	3.8	NA	8.5	30.7	0.53	89.4	8.82	0.14	NA	0.01
DC-16A	2476	2559	6.90	1.43	-0.01	0.03	-0.003	0.18	-12.1	-112	NA	-46.94	NA	NA	0.34	96.6	3.28	0.06	0.01	0.06
DC-16A	2585	2632	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	99.0	0.70	-0.10	0.20	-0.01
DC-16A	2585	2632	6.80	1.50	-0.01	9.30	0.140	0.15	NA	NA	NA	NA	NA	NA	0.30	NA	NA	NA	NA	NA
DC-16A	2670	2822	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	98.3	1.67	0.03	-0.01	-0.01
DC-16A	2671	2730	20.90	2.60	-0.01	0.10	0.007	0.25	-11.5	-114	5.1	-44.79	11.2	NA	0.85	98.0	1.78	0.03	0.04	0.02
DC-16A	2836	2946	12.32	2.57	-0.01	0.08	0.007	0.24	-11.8	-105	NA	-47.78	NA	NA	0.70	98.4	1.59	0.03	-0.01	-0.01
DC-1	362	416	NA	0.06	NA	0.25	NA	NA	-17.2	-145	-13.3	NA	NA	NA	23.00	NA	NA	NA	NA	NA
DC-1	362	712	NA	0.06	NA	0.05	NA	NA	NA	NA	-14.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-1	362	890	NA	0.56	NA	0.05	NA	NA	NA	NA	-2.9	NA	NA	NA	1.10	NA	NA	NA	NA	NA
DC-1	362	1190	NA	0.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00	NA	NA	NA	NA	NA
DC-1	362	2242	NA	0.58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-1	450	530	NA	0.05	NA	0.05	NA	NA	NA	NA	-14.2	NA	NA	NA	5.30	NA	NA	NA	NA	NA
DC-1	540	620	NA	0.06	NA	0.01	NA	NA	-18.3	-154	-14.3	NA	NA	NA	2.20	NA	NA	NA	NA	NA
DC-1	636	726	NA	0.10	NA	1.40	NA	NA	-17.7	150	-10.5	NA	NA	NA	2.20	NA	NA	NA	NA	NA
DC-1	720	810	NA	0.45	NA	0.57	NA	NA	-16.9	-142	-4.0	NA	NA	NA	2.30	NA	NA	NA	NA	NA
DC-1	980	1120	NA	0.94	NA	0.03	NA	NA	-15.5	-138	15.4	NA	NA	NA	6.20	NA	NA	NA	NA	NA
DC-1	1090	1280	NA	0.73	NA	NA	NA	NA	-15.6	-136	13.2	NA	NA	NA	1.30	NA	NA	NA	NA	NA
DC-1	1330	1520	NA	NA	NA	0.20	NA	NA	-15.9	-139	1.4	NA	NA	NA	108.00	NA	NA	NA	NA	NA
DC-1	2600	2780	NA	NA	NA	1.00	NA	NA	-17.8	-151	-12.6	NA	NA	NA	9.60	NA	NA	NA	NA	NA
DC-1	3146	3236	NA	0.72	NA	0.10	NA	NA	-16.0	-138	-7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
DC-1	3166	3196	NA	0.66	NA	0.15	NA	NA	-15.9	-148	-7.6	NA	NA	NA	2.00	NA	NA	NA	NA	NA
DC-1	3206	3246	NA	0.17	NA	0.65	NA	NA	-15.9	-138	-7.3	NA	NA	NA	4.40	NA	NA	NA	NA	NA
DC-1	3320	3451	NA	0.66	NA	1.80	NA	NA	NA	-138	-7.0	NA	NA	NA	17.80	NA	NA	NA	NA	NA
DC-1	4080	4283	NA	0.38	NA	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GEOCHEMICAL TEST DATA

03-Sep-86

IDENTIFIER				
TEST HOLE	TEST INTERVAL TOP	TEST INTERVAL BOTTOM	REFERENCE	COMMENTS
RRL-2	1574	1714	NWC-1619	
RRL-2	1735	1773	NWC-1619	
RRL-2	2244	2644	NWC-1619	
RRL-2	2719	2913	NWC-1619	
RRL-2	3247	3344	NWC-1619	SAMPLING EVENT B2-401
RRL-2	3247	3344	NWC-1619	SAMPLING EVENT B4-7
RRL-2	3568	3781	NWC-1619	
RRL-2	3781	3827	NWC-1619	
RRL-2	3837	3889	NWC-1619	
DC-16A	668	835	NWC-1619	
DC-16A	928	1021	NWC-1619	
DC-16A	1395	1568	NWC-1619	
DC-16A	1760	1828	NWC-1619	
DC-16A	1892	2000	NWC-1619	B2-188
DC-16A	2105	2156	NWC-1619	B2-124
DC-16A	2201	2261	NWC-1619	
DC-16A	2266	2371	NWC-1619	B2-214B .86% O2
DC-16A	2266	2371	NWC-1619	
DC-16A	2476	2559	NWC-1619	
DC-16A	2585	2632	NWC-1619	
DC-16A	2585	2632	NWC-1619	
DC-16A	2670	2822	NWC-1619	
DC-16A	2671	2730	NWC-1619	
DC-16A	2836	2946	NWC-1619	ALK. IS FROM LAB
DC-1	362	416	NWC-1619	pH IS FROM LAB
DC-1	362	712	NWC-1619	pH IS FROM LAB
DC-1	362	890	NWC-1619	pH(lab)=9.2
DC-1	362	1190	NWC-1619	pH(lab)=9.4
DC-1	362	2242	NWC-1619	pH(lab)=9.5
DC-1	450	530	NWC-1619	pH IS FROM LAB
DC-1	540	620	NWC-1619	pH(lab)=8.6
DC-1	636	726	NWC-1619	pH IS FROM LAB
DC-1	720	810	NWC-1619	pH IS FROM LAB
DC-1	980	1120	NWC-1619	pH(LAB)=9.5
DC-1	1090	1280	NWC-1619	pH(LAB)=10.2
DC-1	1330	1520	NWC-1619	pH(LAB)=9.7
DC-1	2600	2780	NWC-1619	pH(LAB)=8.9
DC-1	3146	3236	NWC-1619	pH(LAB)=9.6
DC-1	3166	3196	NWC-1619	pH(LAB)=9.9
DC-1	3206	3246	NWC-1619	pH(LAB)=9.9
DC-1	3320	3451	NWC-1619	pH(LAB)=9.7
DC-1	4080	4263	NWC-1619	pH(LAB)=8.9

HYDRAULIC HEAD DATA 1985/1986

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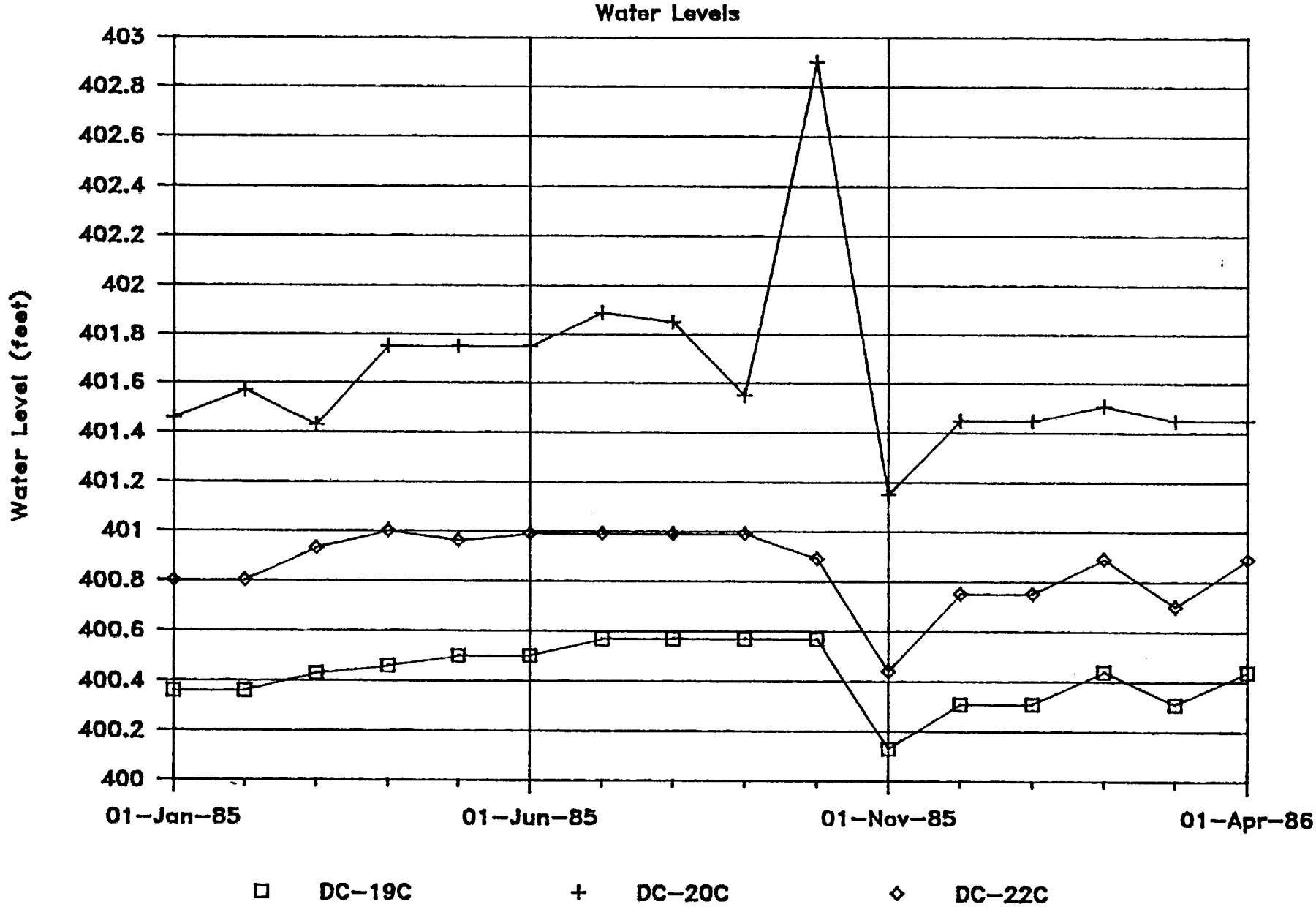
IDENTIFIER						WATER LEVEL ELEVATIONS (FEET ABOVE MEAN SEA LEVEL)															
	INTERVAL		STRATA																		
TEST HOLE	TOP	BOTTOM	GROUP	UNIT	STRUCTURE	JAN85	FEB85	MAR85	APR85	MAY85	JUN85	JUL85	AUG85	SEPT85	OCT85	NOV85	DEC85	JAN86	FEB86	MAR86	APR86
DB-12	524.0	707.0	WN	PR	COMP	398.0	401.5	401.7	400.2	399.6	400.9	400.1	397.6	396.5	396.2	397.1	ERR	ERR	ERR	ERR	ERR
DB-14	1038.0	1218.0	WN	PR	FT	399.8	400.0	400.2	400.4	400.4	400.4	400.4	400.5	400.5	400.5	400.1	ERR	ERR	ERR	ERR	ERR
DC-04	2767.0	2947.0	GR	RC	FT	438.3	431.7	428.3	425.9	424.2	422.4	420.8	419.8	419.0	417.9	417.3	ERR	ERR	ERR	ERR	ERR
DC-16C	1706.0	1756.0	WN	PR	FT	410.7	433.7	424.6	419.2	415.7	413.2	411.3	409.7	408.5	407.5	406.7	ERR	ERR	ERR	ERR	ERR
DC-19A	NA	NA	UN	RINGOLD	UN	451.0	451.0	451.0	450.9	450.8	450.8	450.8	450.7	450.6	450.4	450.4	ERR	ERR	ERR	ERR	ERR
DC-19A	NA	NA	SM	RR	IB	439.7	440.2	440.8	441.0	441.1	441.2	441.3	441.3	441.4	441.4	441.4	ERR	ERR	ERR	ERR	ERR
DC-19C	NA	NA	GR	RC	FT	401.4	401.5	401.6	401.6	401.7	401.7	401.8	401.8	401.8	401.8	401.8	401.9	402.0	402.0	402.0	402.0
DC-19C	NA	NA	WN	FR-SENT.	FT	400.4	400.4	400.4	400.5	400.5	400.5	400.6	400.6	400.6	400.6	400.1	400.3	400.3	400.4	400.3	400.4
DC-19C	NA	NA	WN	PR	?IF/FT	399.9	400.0	400.1	400.1	400.2	400.2	400.2	400.2	400.1	400.5	399.8	400.0	400.0	400.1	400.0	400.1
DC-19C	NA	NA	GR	UM	FT	401.9	402.0	402.0	402.1	402.1	402.1	402.2	402.2	402.2	402.2	402.2	402.2	402.2	402.2	402.2	402.2
DC-19C	NA	NA	WN	FR-GINKGO	?FT/IF	400.4	400.4	400.4	400.5	400.5	400.5	400.6	400.6	400.6	400.6	400.1	400.3	400.3	400.4	400.3	400.4
DC-19C	NA	NA	GR	CH	FT	401.1	401.2	401.2	401.2	401.3	401.3	401.4	401.4	401.4	401.4	401.1	401.2	401.2	401.2	401.2	401.2
DC-19D	NA	NA	WN	MABTON	IB	421.3	421.4	421.5	421.6	421.6	421.6	421.7	421.7	421.8	421.4	421.6	ERR	ERR	ERR	ERR	ERR
DC-20A	NA	NA	SM	RR	IB	444.3	444.4	444.4	444.4	444.5	444.5	444.5	444.5	444.5	444.5	444.4	ERR	ERR	ERR	ERR	ERR
DC-20A	NA	NA	UN	RINGOLD	?	454.8	454.9	454.9	454.8	454.8	454.8	454.8	454.8	454.8	454.7	454.7	ERR	ERR	ERR	ERR	ERR
DC-20C	NA	NA	GR	CH	FT	404.2	404.4	404.5	404.6	404.6	405.0	404.9	404.9	405.0	405.0	404.9	405.0	405.0	405.2	406.4	405.3
DC-20C	NA	NA	WN	FR-SENT.	FT	401.5	401.6	401.4	401.8	401.8	401.8	401.9	401.9	401.6	402.9	401.2	401.5	401.5	401.5	401.5	401.5
DC-20C	NA	NA	GR	UM	FT	405.3	405.4	405.6	405.6	405.7	406.0	405.9	406.0	406.0	405.9	405.9	406.0	406.1	406.2	406.5	406.4
DC-20C	NA	NA	WN	PR	?IF/FT	401.4	401.5	401.6	401.6	401.7	401.7	401.7	401.7	401.6	401.8	401.0	401.5	401.5	401.5	401.5	401.5
DC-20C	NA	NA	WN	FR-GINKGO	?IF/FT	401.4	401.5	401.6	401.6	401.7	401.7	401.7	401.7	401.6	401.8	401.0	401.6	401.7	401.7	401.5	401.7
DC-20C	NA	NA	GR	RC	FT	404.3	404.5	404.5	404.7	404.7	405.2	405.1	405.0	405.2	405.2	405.1	405.1	405.2	405.3	406.6	405.5
DC-20D	NA	NA	WN	MABTON	IB	414.2	414.3	414.3	414.3	414.2	414.1	414.1	414.1	414.1	414.1	414.1	ERR	ERR	ERR	ERR	ERR
DC-22A	NA	NA	SM	RR	IB	442.3	442.3	442.4	442.4	442.3	442.3	442.4	442.4	442.3	442.2	442.2	ERR	ERR	ERR	ERR	ERR
DC-22A	NA	NA	UN	RINGOLD	UN	443.7	442.2	443.5	443.5	443.6	443.5	443.5	443.5	443.4	443.2	443.2	ERR	ERR	ERR	ERR	ERR
DC-22C	NA	NA	WN	FR-GINKGO	?IF/FT	401.2	401.2	401.2	401.3	401.3	401.3	401.4	401.5	401.4	401.4	401.4	401.2	401.3	401.3	401.3	401.3
DC-22C	NA	NA	WN	PR	?IF/FT	400.5	400.5	400.6	400.7	400.7	400.7	400.7	400.7	400.6	400.7	400.5	400.5	400.5	400.5	400.4	400.6
DC-22C	NA	NA	GR	RC	FT	402.5	402.7	403.0	403.2	403.4	403.5	403.8	403.9	404.0	404.1	404.2	404.4	404.5	404.6	404.6	404.8
DC-22C	NA	NA	GR	UM	FT	403.9	404.0	404.1	404.2	404.2	406.4	405.9	405.2	404.9	404.8	404.8	404.9	404.6	404.7	404.8	404.9
DC-22C	NA	NA	WN	FR-SENT.	FT	400.8	400.8	400.9	401.0	401.0	401.0	401.0	401.0	401.0	400.9	400.4	400.8	400.8	400.9	400.7	400.9
DC-22C	NA	NA	GR	CH	FT	403.4	403.5	403.8	403.9	403.9	405.8	405.7	405.2	404.9	404.8	404.8	404.6	404.7	404.9	404.9	405.0
DC-22D	NA	NA	WN	MABTON	IB	410.4	410.4	410.5	410.6	410.6	410.6	410.6	410.6	410.4	410.2	410.1	ERR	ERR	ERR	ERR	ERR
MCGEE	NA	NA	GR	RC	FT	602.3	602.3	602.4	602.5	602.5	602.7	602.4	602.5	602.4	602.2	602.3	ERR	ERR	ERR	ERR	ERR
OBRIAN	597.0	707.0	WN	PR	FT	913.4	914.8	916.0	916.9	914.0	907.0	903.8	900.0	899.5	900.8	903.7	ERR	ERR	ERR	ERR	ERR
RRL-2C	NA	NA	GR	GR-5(BRK.)	IF	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	404.6	404.0	400.8	404.3	404.1	404.3	404.4	404.6
RRL-2C	NA	NA	GR	CH	IF	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	402.9	401.9	383.0	404.2	403.6	403.1	402.8	402.4
RRL-2C	NA	NA	GR	GR-5(BRK.)	FT	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	405.5	404.0	404.8	404.7	404.8	404.9	405.0	405.1
RRL-2C	NA	NA	GR	RC	IF	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	402.9	403.1	395.4	403.6	402.9	402.5	402.3	402.2
RRL-2C	NA	NA	GR	CH	FT	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	402.9	401.0	386.2	402.8	401.3	400.1	399.2	398.4
RRL-2C	2796.0	2949.0	GR	RC	FT	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	404.6	404.4	404.8	404.3	404.3	404.6	404.9	404.8

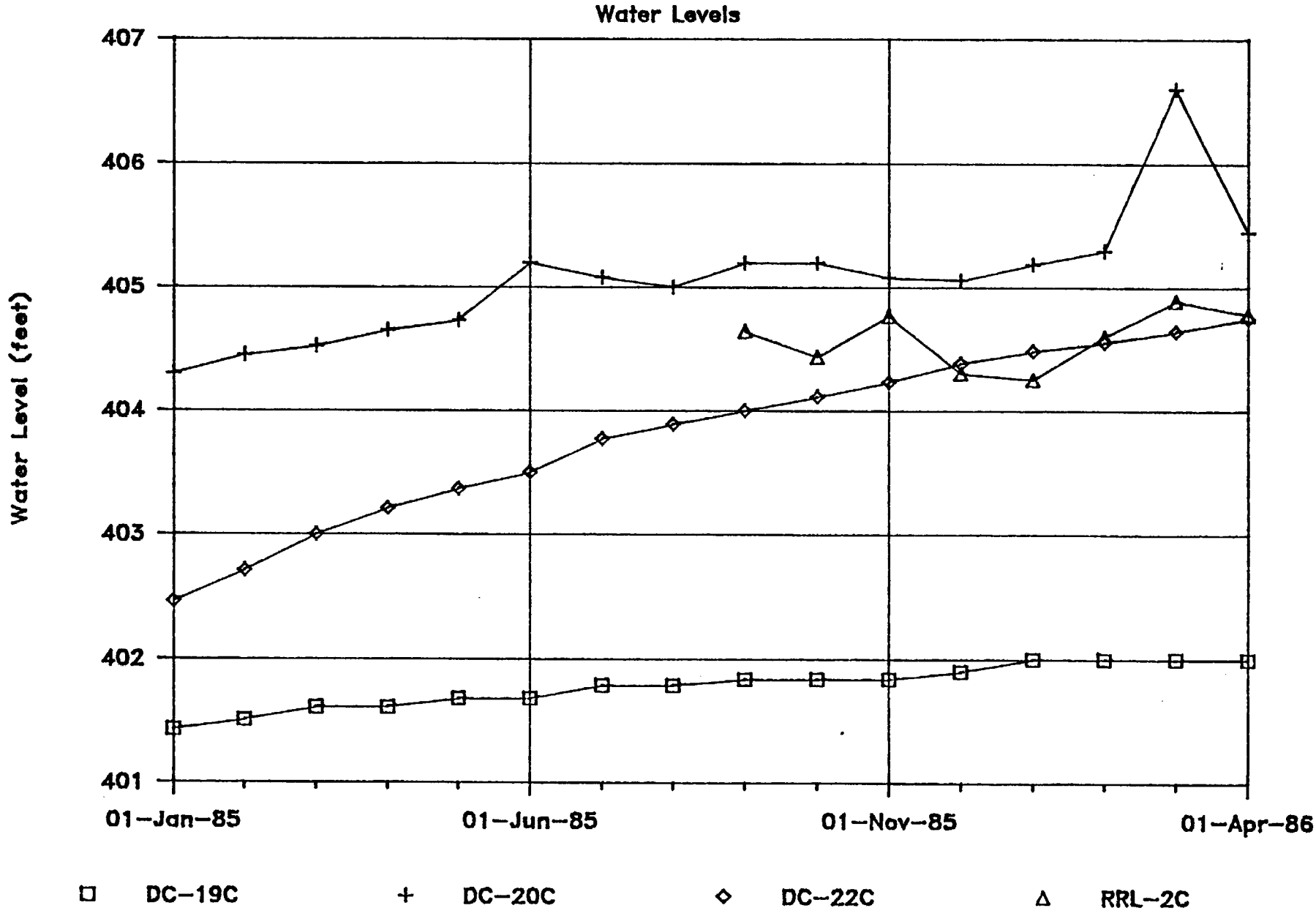
IDENTIFIER TEST HOLE	INTERVAL TOP	INTERVAL BOTTOM	WATER LEVEL ELEVATIONS (FEET ABOVE MEAN SEA LEVEL) MAY86	JUN86	JUL86	AUG86	SEPT86	OCT86	NOV86	DEC86	CORRECTED FOR ATM? (Y/N)	REFERENCE	REFERENCE CHECK	COMMENTS
DB-12	524.0	707.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NWC-1096(WL:J,F,M)	NA
DB-14	1038.0	1218.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NWC-1096(WL:F,M)	NA
DC-04	2787.0	2947.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NWC-1096(WL:J,F,M)	NA
DC-16C	1706.0	1756.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NWC-1096(WL:J,F,M)	NA
DC-19A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-19A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	IF/FT??READINGS AT SAME INTERVAL?
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-19C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-19D	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-20A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-20A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	IF/FT??READINGS AT SAME INTERVAL?
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-20C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-20D	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-22A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-22A	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518/NWC-1636	NA	NA
DC-22D	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	Y	NWC-1518	NA	NA
MCGEE	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NA	NA
OBRIAN	597.0	767.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N	NWC-1518/NWC-1261	NA	NA
RRL-2C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1636	NA	ATM. COND. CORRECTION DIFF.
RRL-2C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1636	NA	ATM. COND. CORRECTION DIFF.
RRL-2C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1636	NA	ATM. COND. CORRECTION DIFF.
RRL-2C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1636	NA	ATM. COND. CORRECTION DIFF.
RRL-2C	NA	NA	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1636	NA	ATM. COND. CORRECTION DIFF.
RRL-2C	2796.0	2949.0	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/Y	NWC-1518/NWC-1261/NWC-1636	NA	ATM. COND. CORRECTION DIFF.

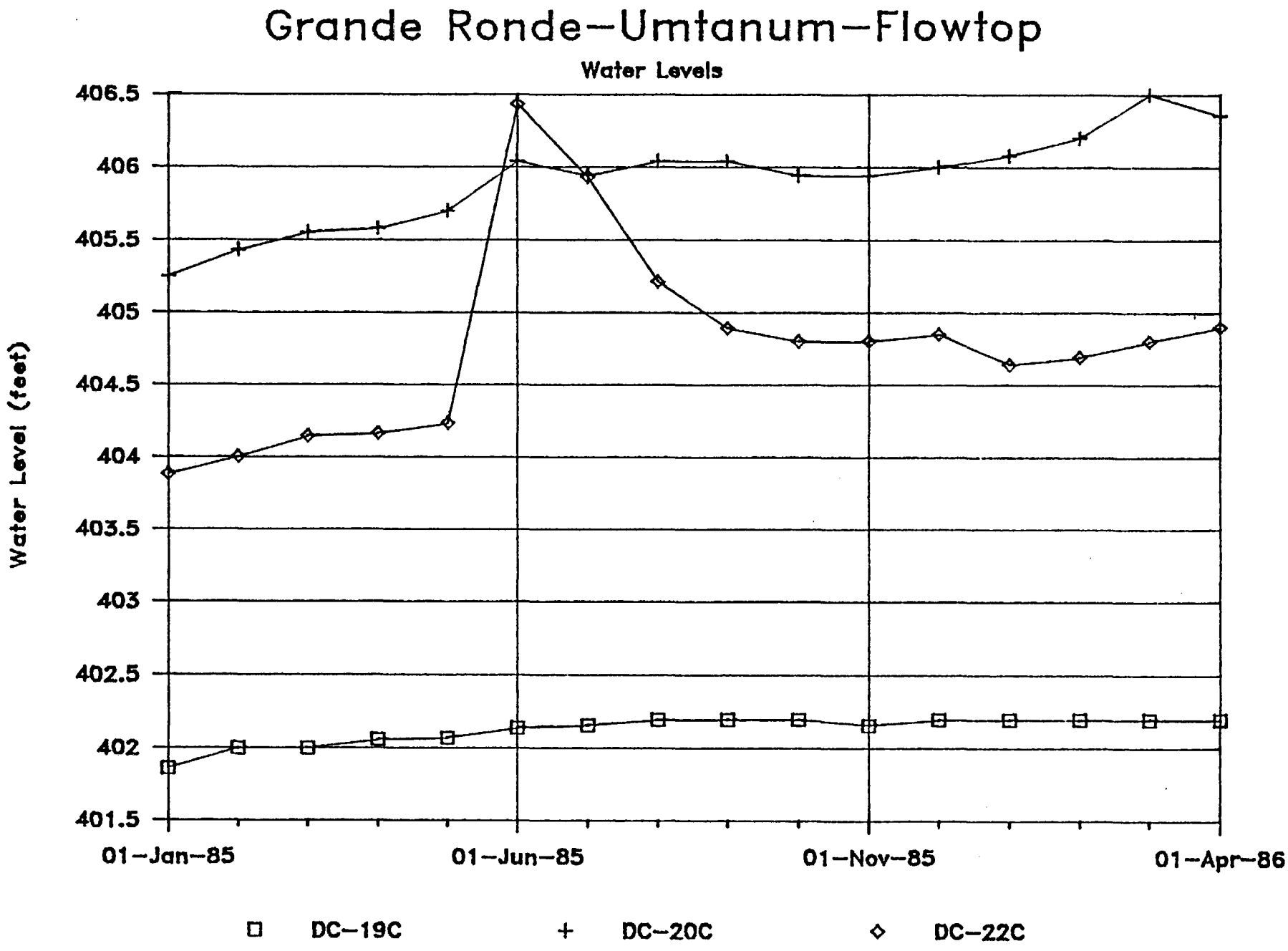
ATTACHMENT C

Wanapum–Frenchman Springs Sentinel Gap–Flowtop

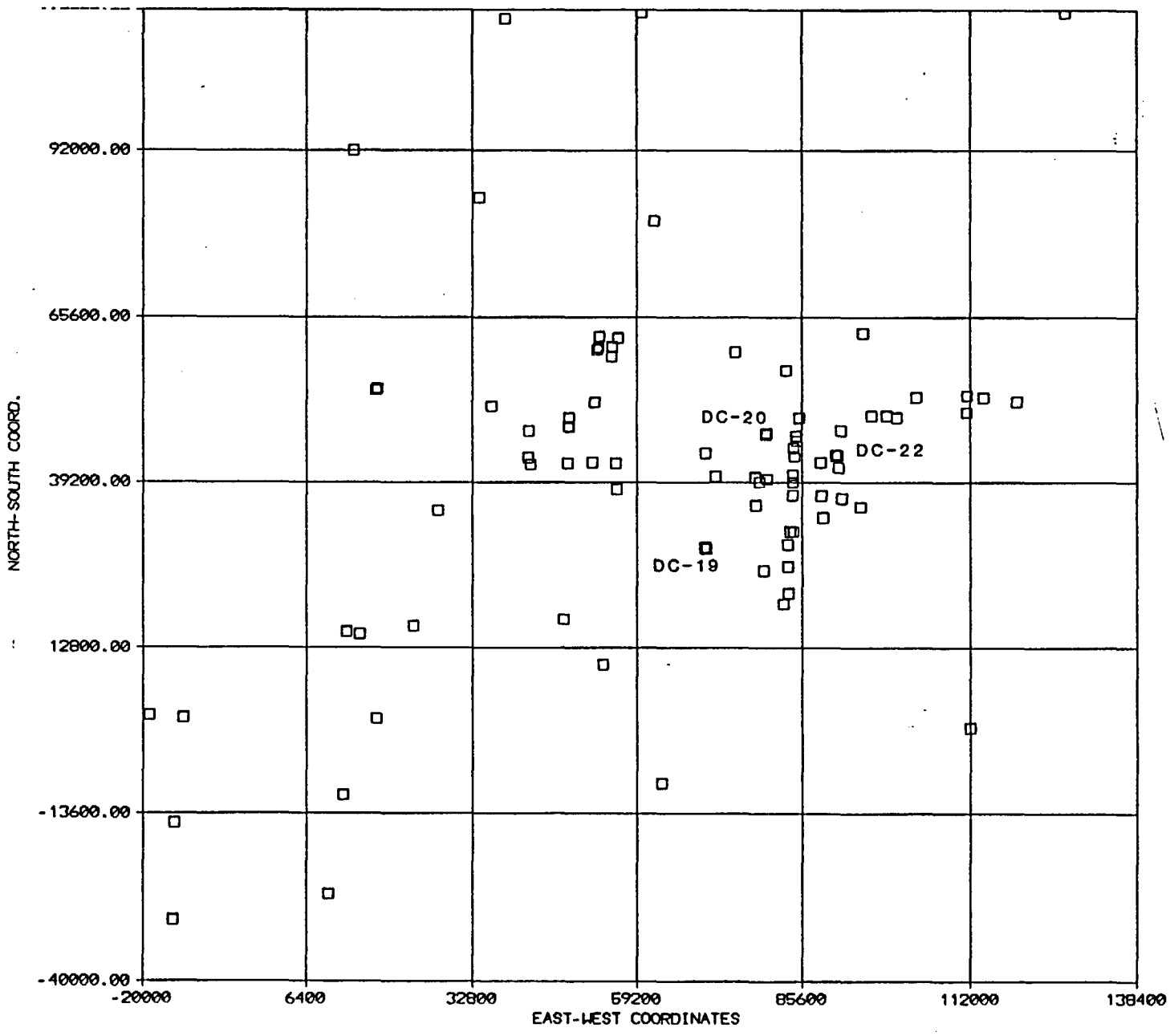


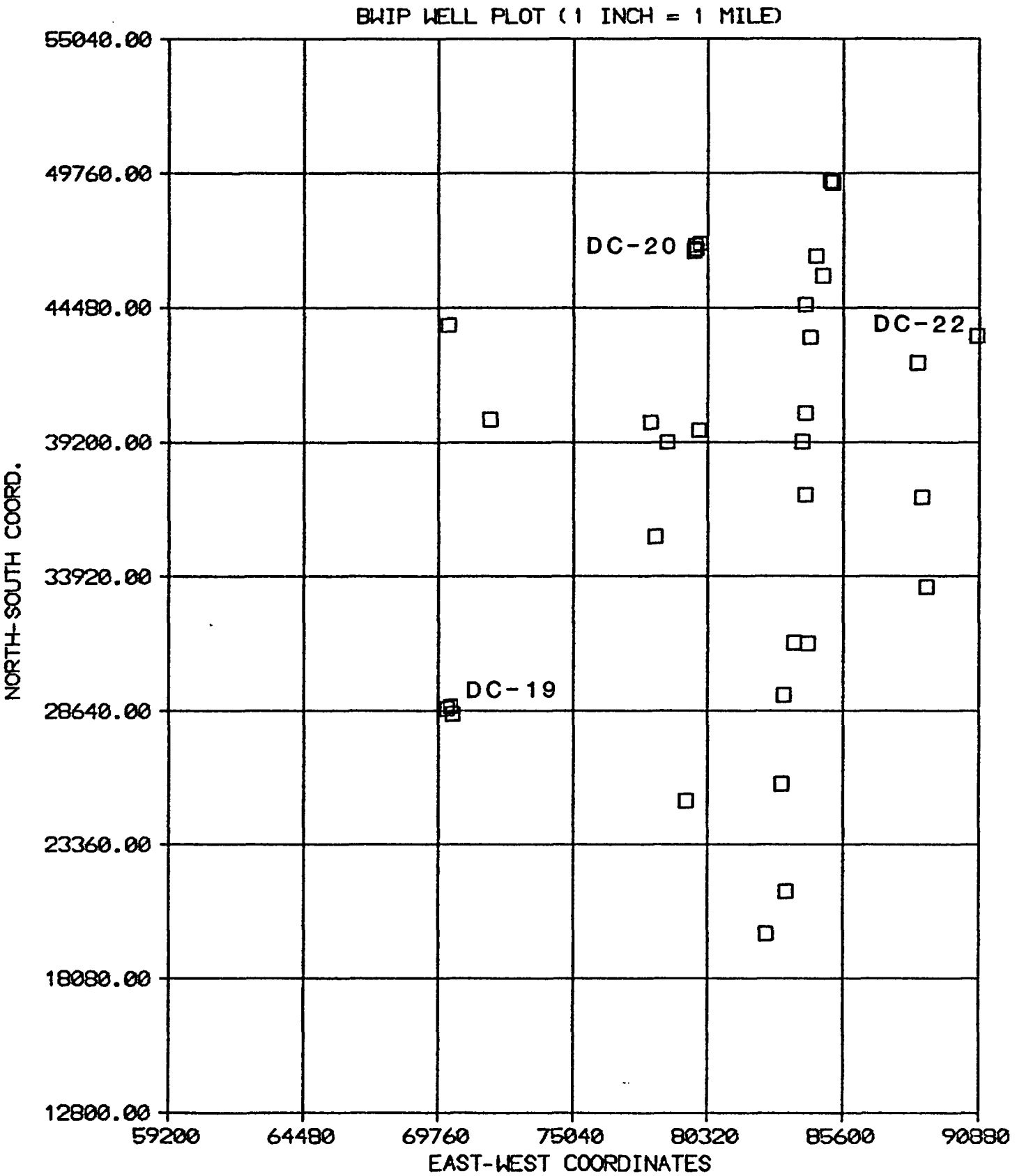
Grande Ronde–Rocky Coulee–Flowtop




Grande Ronde–Umtanum–Flowtop
Water Levels
Water Level (feet)
406.5
406
405.5
405
404.5
404
403.5
403
402.5
402
401.5
01–Jan–85
01–Jun–85
01–Nov–85
01–Apr–86
DC–19C
DC–20C
DC–22C

ATTACHMENT D


92000.00
65600.00
39200.00
12800.00
-13600.00
-40000.00
NORTH-SOUTH COORD.
-20000
6400
32800
59200
85600
112000
138400
EAST-WEST COORDINATES
DC-20
DC-22
DC-19


BWIP WELL PLOT (1 INCH = 1 MILE)
55040.00
49760.00
44480.00
39200.00
33920.00
28640.00
23360.00
18080.00
12800.00
NORTH-SOUTH COORD.
59200
64480
69760
75040
80320
85600
90880
EAST-WEST COORDINATES
DC-20
DC-22
DC-19