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Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

A Catalog of Geologic Data for the Hanford Site

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T. J Gilmore
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September 2001

Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RL01830

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Summary

This report catalogs the existing geologic data that can be found in various databases, published and unpublished reports, and in individuals' technical files. The scope of this catalog is primarily on the 100, 200, and 300 Areas, with a particular emphasis on the 200 Areas. Over 2,922 wells are included in the catalog. Nearly all of these wells (2,459) have some form of driller's or geologist's log. Archived samples are available for 1,742 wells. Particle size data are available from 1,078 wells and moisture data are available from 356 wells. Some form of chemical property data is available from 588 wells.

However, this catalog is by no means complete. Numerous individuals have been involved in various geologic-related studies of the Hanford Site. The true extent of unpublished data retained in their technical files is unknown. However, this data catalog is believed to represent the majority (>90%) of the geologic data that is currently retrievable.

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Table

Introduction

Site characterization and modeling activities to support the U.S. Department of Energy's (DOE) Hanford Site environmental restoration programs have been underway for several years and are expected to continue for many more years. Part of these characterization efforts is aimed at describing the physical and chemical nature of the vadose zone and aquifer sediment. Although it is necessary to collect new data, voluminous existing data have been collected for studies during the past 55 years. These existing data provide an essential starting point for future investigations and are critical for successful future site characterization and modeling efforts.

Unfortunately, existing data have not been consolidated into one library or database. Instead, existing data are found in several forms and locations. These include databases, published and unpublished reports, and in individuals' technical files.

The Characterization of Systems (CoS) Task under the Groundwater/Vadose Zone Integration Project is responsible for establishing a consistent set of data, parameters, and conceptual models to support efforts at the Hanford Site to estimate contaminant migration and impact (DeLamare 2000). As part of these efforts, CoS is assembling a series of catalogs to identify the depth and breadth of existing data and to facilitate access to those data. The preparation of these catalogs is aimed at facilitating the development of comprehensive, useable, and scientifically defensible database(s). However, it is also envisioned that these catalogs will be "living documents" that will continue to evolve, as other existing data is found and new data collected.

Three separate catalogs are being prepared in parallel to document the existing vadose zone data. These include the geologic data (this report), vadose-zone hydraulic-property data (in preparation), and geochemical data. These catalogs join an already existing catalog on surface and borehole geophysical data (Last and Horton 2000) and a catalog on release mechanisms (in preparation).

The purpose of this report is to gather, in one place, sources of existing geologic data for the Hanford Site, focusing on the 100, 200, and 300 Areas, with a particular emphasis on the 200 Areas. Over 2,922 wells are included in the catalog (only wells with associated data are included). However, the resulting data catalog (Appendix A) is by no means complete. Many individuals have been involved in geologic studies through the years, and the extent of unpublished data retained in their files is unknown. However, the catalog is estimated to represent the majority (>90%) of the geologic data currently available from the above mentioned areas.

The data catalog (Appendix A) included in this report contains the majority of existing lithologic data available for the Hanford Site. The emphasis is on raw data needed to support performance assessments of varying scales and dimensions. The catalog identifies sources for the various geologic parameters needed to support the understanding of hydrologic and geochemical processes in the vadose zone, such as three-dimensional simulations of multiphase flow and contaminant sorption. A bibliography of data sources is included in Appendix B.

Appendix A describes and summarizes the raw geologic data available for the Hanford Site, where the data can be found (e.g., published documents, formal databases, or informal databases), how the data can be accessed (and points of contact), and the procedures used to collect the data and/or the pedigree of the data if known. The major sources of data include those data generated by the characterization and remediation activities of Bechtel Hanford, Inc.; the waste management and environmental programs of Rockwell Hanford Operations and Westinghouse Hanford Company; the characterization and monitoring studies done by Pacific Northwest National Laboratory (PNNL); and studies done by independent contractors. The geologic data catalog is intended for the subject matter expert who has a need for existing geologic data and can be used to identify data gaps and technical needs.

The scope of this catalog includes data collected from all geologic units between the ground surface and above the top of basalt. This includes units within the unconfined aquifer as well as those in the vadose zone. This was done for completeness, because the geologic units that are below the water table in some areas are above the water table in other areas. It may be possible to extrapolate data from those areas below the water table to those areas above the water table. Also, in cases where there are no data from above the water table, data from below the water table may be the only available data. However, this catalog is restricted to geologic data and does not include groundwater information such as flow rates, flow direction, or groundwater chemistry.

The geologic data catalog includes information from previous investigations of lithology, soil and rock composition (mineralogy and chemical composition), physical properties (grain size, density, cementation properties), and geologic structure. The catalog is not a database in the strictest definition, in that it does not provide the actual data values. Instead, the catalog lists the types of data available for a particular borehole or well, and the sources (Appendix B) from which one can obtain that data, including both electronic and non-electronic formats.

The geologic data catalog includes only sources for raw data. It does not include interpretive data such as contacts between geologic units. The distinction between raw data and interpreted data is important and sometimes subtle. For example, laboratory-derived chemical data show the quantities of various elements in Hanford Site sediment and is considered raw data. However, the use of that raw data to define the depths of geologic contacts yields interpretive data.

Interpretive Data

Table 1 contains a list of sources for recent interpretive data. The conceptual model of the Hanford Site vadose zone continues to evolve as new data and interpretive methods are developed. As with the raw data, the information in Table 1 is undoubtedly incomplete; however, it represents most of the recently published (post-1990) interpretive data sets.

Table 1. Sources of Recent Interpretive Data

Author and Year	Title and Document Number
Wood et al. 2001	*Subsurface Conditions Description of the T-TX-TY Waste Management Area*, RPP-7123
Narbutovskih and Horton 2001	*RCRA Groundwater Monitoring Plan for Single-Shell Tank Waste Management Area A-AX at the Hanford Site*, PNNL-13023
Horton and Narbutovskih 2001	*RCRA Groundwater Monitoring Plan for Single-Shell Tank Waste Management Area C at the Hanford Site*, PNNL-13024
Slate 2000	*Nature and Variability of the Plio-Pleistocene Unit in the 200 West Area of the Hanford Site*
Sobczyk 2000	*Subsurface Interpretation of the SX Tank Farm Hanford Site, Washington Based on Gamma-Ray Logging, Nez Perce Tribe ERWM Program, Lapwai, Idaho*
Wood et al. 2000	*Subsurface Conditions Description of the B-BX-BY Waste Management Area*, HNF-5507
Johnson et al. 1999	*Subsurface Conditions Description of the S-SX Waste Management Area*, HNF-4936
Reidel and Horton 1999	*Geologic Data Package for the 2001 Immobilized Low-Activity Waste Performance Assessment*, PNNL-12257, Rev. 1. (Includes interpretations for the former Grout Treatment Facility)
Lindsey et al. 1994	*Geologic Setting of the Low-Level Burial Grounds*, WHC-SD-EN-TI-290
Reidel and Fecht 1994a	*Geologic Map of the Richland 1:100,000 Quadrangle, Washington*
Reidel and Fecht 1994b	*Geologic Map of the Priest Rapids 1:100,000 Quadrangle, Washington*
Hoffmann 1992	*Summary of the Geology of the 200-BP-1 Operable Unit*, WHC-SD-EN-TI-037
Lindsey et al. 1992	*Geologic Setting of the 200 East Area: An Update*, WHC-SD-EN-TI-012
Delaney et al. 1991	*Geology and Hydrology of the Hanford Site: A Standardized Text for Use in Westinghouse Hanford Company Documents and Reports*, WHC-SD-ER-TI-003.
Lindsey et al. 1991	*Geologic Setting of the 200 West Area: An Update*, WHC-SD-EN-TI-008
Bjornstad 1990	*Geohydrology of the 218-W-5 Burial Ground, 200-West Area, Hanford Site*, PNL-7336

Subject Matter Experts

Many geoscientists have worked at the Hanford Site during the past 55 years. A quick scan of the bibliography will reveal the names of most of them. Many of these scientists have retired or taken employment at places other than the Hanford Site. However, several of these individuals remain at

Hanford and represent, in many cases, the individuals who collected the raw data and formulated the interpreted data. Those experts are acknowledged here so that other workers will know whom to contact for information:

- Bruce N. Bjornstad
- Mickie A. Chamness
- Karl R. Fecht
- Tyler J Gilmore
- Duane G. Horton
- George V. Last
- Jon W. Lindberg
- Kevin A. Lindsey
- Steve P. Reidel
- Virginia A. Rohay
- Kevin M. Singleton
- Dave C. Weekes
- Bruce A. Williams

It is recognized that many field geologists contributed to our knowledge of the Hanford Site over the past years. It is because of their work collecting samples, describing drill cuttings, and measuring geologic properties, that our understanding of the Hanford Site geology is as good as it is.

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Reidel, S. P. and K. R. Fecht. 1994a. *Geologic Map of the Richland 1:100,000 Quadrangle, Washington.* Open File Report 94-8, Washington Division of Geology and Earth Resources, Washington State Department of Natural Resources, Olympia, Washington.

Reidel, S. P. and K. R. Fecht. 1994b. *Geologic Map of the Priest Rapids 1:100,000 Quadrangle, Washington.* Open File Report 94-13, Washington Division of Geology and Earth Resources, Washington State Department of Natural Resources, Olympia, Washington.

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Slate, J. L. 2000. *Nature and Variability of the Plio-Pleistocene Unit in the 200 West Area of the Hanford Site*. BHI-01203, Bechtel Hanford, Inc., Richland, Washington.

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Wood, M. I., T. E. Jones, R. Schalla, B. N. Bjornstad, and S.M. Narbutovskih. 2000. *Subsurface Conditions Description of the B-BX-BY Waste Management Area*. HNF-5507, Rev. 0, CH2M HILL Hanford Group, Richland, Washington.

Wood, M. I., T. E. Jones, R. Schalla, B. N. Bjornstad, and F. N. Hodges. 2001. *Subsurface Conditions Description of the T-TX-TY Waste Management Area*. RPP-7123, Rev. 0, CH2M HILL Hanford Group, Richland, Washington.

Appendix A

Geologic Data Catalog

Appendix A

Geologic Data Catalog

This geologic data catalog (Appendix A) is organized by area and well name (in rows). Thus, if there is interest in a certain location, data derived from wells near that location can be easily found. Chamness and Merz (1993) document the well naming scheme used at the Hanford Site until about 2000. An understanding of the old well naming system provides insight into the location of the well, the relative age of the well, and the type of well (e.g., groundwater, vadose, piezometer). The current well naming system is slightly different from the older system described in Bechtel Hanford, Inc. procedure for naming and numbering wells (BHI 2001).

Format and Content of the Geologic Data Catalog

The types of raw data available for each well are grouped into nine different categories (columns):

- Geologic Log Data (Log Type)
- Particle Size Data (Sieved)
- Calcium Carbonate Data ($CaC0_3$)
- Moisture Content Data (Moisture)
- Chemical Property Data (Chemical Properties)
- Physical Property Data (Physical Properties)
- Mineralogic Properties
- Geochronological Properties)
- Archived Samples (Archived)

There is somewhat of an inequity in the seven categories of information. Whereas particle size distribution, calcium carbonate content, and moisture content are given separate columns, all other information is contained in either the chemical property or physical property categories. This was done because data on particle size distribution and calcium carbonate and moisture contents are available for the majority of wells at the Hanford Site. In addition, the catalog identifies the source and/or location of the data described in the previous columns. Brief descriptions of each of the general data types are provided in the following sections.

Log Type

The column labeled "Log Type" indicates what types of logs are available for a given well. Wells with a "D" in the column have an available driller's log. Wells with a "G" have an available geologist's log. All logs on the spreadsheet are available in the PNNL Well Log Library[a] or the CH2M HILL Inc. Library, located in the Sigma I Building.

Generally, the types of information on the geologist's log includes a visual estimate of particle size distribution, sorting, grain roundness, general mineralogy of the gravel and sand fraction, color, reaction to 10% HCl, degree of consolidation and cementation, and any unusual characteristics.

The type of information on driller's logs varies greatly from log to log but generally contains only a visual estimate of gravel, sand, and silt.

Entries of "As-built" or "Well Summary" in the Log Type column indicate that these documents are available. If a reference to HWIS (Hanford Well Information System) is given, the as-built or well summary is available at the HWIS web page (http://www.erc.rl.gov/~eis/wells/wellhome.htm.). For many wells, the as-built diagrams and well summaries are available both at the HWIS web page and in the PNNL well library. The type of geologic data on the as-built or well summary are generally summaries of the driller's or the geologist's logs.

Sieved

The information in the "Sieved" column indicates whether particle size distribution analyses exist for samples from each well. Particle-size data provide information for interpreting depositional environment. Entries of "SLATE" in the column mean that the particle size distribution data are available in the SLATE database maintained by Bechtel Hanford Company. The information in the SLATE database was derived from the now abandoned ROCSAN Database and from information on geologist's logs.

Price and Fecht (1976) give a brief explanation of the procedures used to obtain data for the ROCSAN (a.k.a. ROC) database.

When using the information in the SLATE database, the user should attempt to determine the method used to drill the borehole. Boreholes that were cored or drilled by drive barrel generally give much better information than boreholes drilled by hard tool methods because the hard tool tends to alter the natural grain size distribution. The drilling method can usually be determined by examining the well logs in the PNNL or the CH2M HILL libraries. The old ROCSAN database would default to "Cable tool" as the drilling method if no specific method was entered. Thus, the older ROCSAN database is not a reliable way to determine drilling method; the drilling method is not part of SLATE.

(a) Contact D. G. Horton.

Entries of "Y" (yes) in the "Sieved" column indicate that particle size distribution data are available in sources other than the SLATE database. The source of the data is indicated in the "Source/Comments" column, which can be cross-referenced to the bibliography.

For many of the wells, grain size distribution data are available for samples collected at 5-foot intervals. However, for other wells, grain size distribution data are available only for part of the borehole or for random, or preselected depths. The quantity of the sieve data for a specific well can only be determined by going to the SLATE database or the referenced data source(s).

$CaCO_3$

The information in the "$CaCO_3$" column indicates whether calcium carbonate concentration data exist for samples from each well. Calcium carbonate content can be an indicator of paleosol development and/or paleo water levels. As with the "Sieved" column, entries of "SLATE" in the "$CaCO_3$" column mean that calcium carbonate concentration data are available in the SLATE database maintained by Bechtel Hanford, Inc. The calcium carbonate information in the SLATE database was taken from the ROCSAN Database. The calcium carbonate content of samples in the SLATE database was measured with a semiquantitative CO_2 displacement method (Horwitz 1970). Qualitative estimates of calcium carbonate content as made by the geologists in the field are not included in the "$CaCO_3$" column.

Entries of "Y" (yes) in the "$CaCO_3$" column indicate that data are available from sources other than the SLATE database. The source of the data is indicated in the Source/Comments column which can be cross-referenced to the bibliography.

Just as for the grain-size distribution data, data for calcium carbonate content are available for samples collected at 5-foot intervals for many of the wells. However, for other wells, calcium carbonate data are available only for part of the borehole or for random, or preselected depths. The quantity of the data can only be determined by going to the SLATE database or the referenced data source.

Moisture

A "Y" (Yes) in the "Moisture" column means that moisture content data are available for the well. If there is a reference in the "Source/Comment" column, the data are available through the reference. Some of the references describe the procedure used to collect the data or give the laboratory that measured the data so that some judgment of the data quality can be made. If no reference is given in the "Source/Comment" column, the data are available in PNNL Well Log Library.

For many of the wells, moisture content is available for samples collected at 5-foot intervals. However, for other wells, moisture data are available only for part of the borehole or for random, or preselected depths. The quantity of the data can only be determined by going to the referenced data source or to the PNNL Well Log Library.

Chemical Properties

Information in the “Chemical Properties” column indicates what chemical property data are available for samples from each well. The types of data and their abbreviations used in this column are presented in Table A.1. The sources of the data are indicated in the “Source/Comments” column, which can be cross-referenced to the bibliography. Annotations in the bibliography tell which data are contained in the source. Thus, if more than one source is listed, the user can determine which source contains the desired data. If more than one type of data is listed in the “Chemical Properties” column or, if different types of data are listed for a given well, and if the annotations in the bibliography do not indicate that the source contains the desired data, then that data are available in the PNNL Well Log Library. For example, well 299-E17-21 has available sieve data and magnetic polarity data. A check of the bibliography shows that the sieve data are in Valenta et al. (2000) and the magnetic polarity data are in Reidel and Horton (1999).

Table A.1. Types of Chemical Property Data

Abbreviation	Meaning
1:1	Chemical analysis of metals, and/or cations, and/or anions, and/or pH of 1:1 sediment to water extract.
Aex	Chemical analysis of metals, cations, anions, and/or pH of 1:1 sediment to acid extract.
Alk	Alkalinity analysis of porewater or 1:1 water extract
Alpha	Laboratory analysis of gross alpha or alpha spectrometry
Am	Americium-241
An	Anions
$ASiO_2$	Amorphous silica
Beta	Laboratory analysis of gross beta or beta spectrometry
CN	Analysis of cyanide
CrVI	Analysis of hexavalent chromium
Field pH	Field measurements of pH in geologist’s logs
Field Rad	Data are available in driller’s logs for field measurements of radiation (GM counter).
Field Rad/Temp	Data are available in driller’s logs for field measurements of radiation (GM counter) and/or temperature.
Gamma	Laboratory analysis of gross gamma or gamma spectrometry
GEA	Gamma energy analysis for radionuclides.
H-3	Laboratory analysis for tritium
IC	Laboratory analysis of inorganic carbon
Lab Rad	Laboratory measurements of soil radioactivity
Metals	Laboratory analysis of metals usually by inductively coupled plasma or atomic absorption
MiscMetals	Laboratory analysis of various miscellaneous metals or radioisotopes
NO^3	Laboratory analysis for nitrate
N	Laboratory analysis for nitrogen
P	Laboratory analysis for phosphorus
PID	Field measurements with a photoionization detector in geologist’s logs
Pu	One or more isotope of plutonium

Table A.1. (contd)

Abbreviation	Meaning
Pwater	Porewater composition
Res	Resistivity
Sr-90	Laboratory analysis of Sr-90
StIso	Stable isotopes
SVOA	Semi-volatile organic compounds
TC	Total carbon
TFe/Fe2	Total iron and ferrous iron
TOC	Total organic carbon
VarMetals	Analysis of various metals by unspecified methods
VOA	Volatile organic compounds
Wet Chem	Digestate and/or leachate composition (metals and/or anions)
XRF	Chemical analysis by x-ray fluorescence
Y	Data available

In some cases, two sources may be listed that give the same information. For example, sieve data for boreholes in the tank farm are found in SLATE and in the series of reports by Price and Fecht (see bibliography, Appendix B).

If no source is given for the data, the data are found in the PNNL Well Log Library.

Physical Properties

The "Physical Properties" column indicates what physical property data are available for samples from each well. The "Physical Properties" column is used similar to the "Chemical Properties" column described above. The types of data and their abbreviations used in this column are presented in Table A.2.

Table A.2. Types of Physical Property Data

Abbreviation	Meaning
%GSSC	Percent gravel, sand, silt, and clay. These data require hydrometer analysis to differentiate silt and clay. Most sources giving this type of information mention the use of hydrometer analysis; some do not. Those that do not suggest the data may be suspect. If hydrometer data were given but no calculation of percent clay and silt, the symbol %GSSC was still applied.
15-Atm	15-Atmosphere moisture. This is the moisture content held in a soil against a pressure of 225 psi.
AirPerm	Air permeability
Bden	Bulk density
CEC	Cation exchange capacity
Cond	Electrical conductivity of 1:1 water extract or porewater

Table A.2. (contd)

Abbreviation	Meaning
Pden	Particle density
Pip	Pipette analysis of grain size
Por	Porosity
SpG	Specific gravity

Mineralogical Properties

Information in the Mineralogical Properties column indicates the types of mineralogic data that are available. The types of data are defined in Table A.3.

Table A.3. Types of Mineralogic Data

Abbreviation	Meaning
EM	Electron microprobe
Min	Mineralogy by petrographic microscope
PbC	Pebble count data
PC	Point count modal composition
SEM	Scanning electron microscopy
TEM	Transmission electron microscope
XRD	Mineralogy by x-ray diffraction

Geochronological Properties

Information in the Geochronological Properties column indicates the types of geochronological data that are available. The types of data are defined in Table A.4.

Table A.4. Types of Geochronologic Data

Abbreviation	Meaning
C-14	Carbon-14 age date
Date	Radiometric or thermo luminescent age date
Paleomag	Geomagnetic polarity

Archived

A "Y" (Yes) in the "Archived" column indicates that samples from the well are archived in the Geotechnical Sample Library at 2101-M, 200 East Area. A database of samples in the library is maintained by PNNL. The database specifies the well name and number, the depth, the drill method, the drill date, and the library location for each sample. In general, wells were sampled at 5-foot intervals.

However, many wells were not sampled through their entire depth for various reasons. Access to the database is through D. G. Horton and access to the Geotechnical Sample Library is through S. P. Reidel or D. G. Horton at PNNL.

Source

The "Source" column gives the reference or references to the locations of the data listed in all other columns. A bibliography of data sources listed in this column can be found in Appendix B. Most references in the bibliography are annotated to indicate what types of data are in the referenced source. If the referenced data source described the procedures used for data collection or mentioned the laboratory that collected the data, that information is included in the annotations. This allows the data users to form an opinion about the quality of the data.

If no source is given, the log data are in the PNNL Well Log Library and/or the particle size data are in the SLATE database. References to as-built diagrams, well summary sheets, and the Hanford Well Information System (HWIS) indicate that these sources are available. The as-built diagrams and well summary sheets are included in the PNNL well library. The HWIS also contains as-built diagrams and well summary sheets that may duplicate those found in the PNNL well library. The HWIS can be found on the Hanford Site Environmental Restoration Contractor's web page (http://www.erc.rl.gov/~eis/wells/wellhome.htm). Both as-built diagrams and well summary sheets mostly contain information about the well itself and may or may not include geologic information. These are good sources, however, to determine how a specific well was drilled and constructed.

References

BHI. 2001. *Naming, Numbering, and Tracking of Groundwater Resource Protection Well, GeoProbe, Geotechnical Soil Boring, and River Substrate and Aquifer Porewater Monitoring Tubes.* Procedure 1.9, Rev. 2 in BHI-EE-01, Environmental Investigations Procedures, Bechtel Hanford, Inc., Richland, Washington.

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Horwitz, W. 1970. *Official Methods of Analysis of the Association of Official Analytical Chemists.* 11th Edition, Association of Official Analytical Chemists (now named AOAC International), Gaithersburg, Maryland, p. 139.

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Table A.5. Geologic Data of Wells at the Hanford Site

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-B/C	199-B2-12	D, G, Well summary	Y		Y		SpG, Bden				HWIS; Khaleel 1999	Aquifer test (slug test)
100-B/C	199-B2-13	D, G, Well summary									HWIS	Aquifer test (slug test)
100-B/C	199-B3-1	D, As-built									HWIS	
100-B/C	199-B3-2	D, As-built									HWIS	
100-B/C	199-B3-46	D, G, Well summary									DOE 1994a; HWIS	Aquifer test (slug test)
100-B/C	199-B3-47	D, G, Well summary									HWIS	
100-B/C	199-B3-48	D, G										
100-B/C	199-B4-1	D, As-built									HWIS	
100-B/C	199-B4-2	D, As-built									HWIS	
100-B/C	199-B4-3	D, As-built									HWIS	
100-B/C	199-B4-4	D, As-built									HWIS	
100-B/C	199-B4-5	D, G										
100-B/C	199-B4-6	D, G, As-built									HWIS	
100-B/C	199-B4-7	D, G, As-built									HWIS	
100-B/C	199-B4-8	D, G, As-built				Field Rad					HWIS	
100-B/C	199-B4-9	D, G, As-built	Y		Y	Field Rad	SpG, Bden				HWIS, see R. Khaleel or G. Freemen for sieve data	
100-B/C	199-B4-10	D, G										
100-B/C	199-B4-11	D, G										
100-B/C	199-B4-12	D, G										
100-B/C	199-B4-13	D, G										
100-B/C	199-B5-1	D, As-built									HWIS	
100-B/C	199-B5-2	D, G				Field Rad						
100-B/C	199-B5-3	D, G				Field Rad						
100-B/C	199-B5-4	D, G				Field Rad						
100-B/C	199-B8-1	D										
100-B/C	199-B8-2	D										
100-B/C	199-B8-3	D										
100-B/C	199-B8-4	D										
100-B/C	199-B8-5	D										
100-B/C	199-B8-6	D, G, Well summary				Field Rad					HWIS	
100-B/C	199-B9-1	D, As-built									HWIS	
100-B/C	199-B9-2	D, G, Well summary	Y		Y	Field Rad	SpG, Bden				HWIS, see R. Khaleel or G. Freemen for sieve data	
100-B/C	199-B9-3	D, G, Well summary				Field Rad					HWIS	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-B/C	199-B9-4	Well summary										
100-B/C	116-B-1 vadose borehole					Field Rad, Lab Rad, Metals, SVOA, VOA					DOE 1994b	
100-B/C	116-B-6A; BH-1	G										Wells for in situ vitrification
100-B/C	BH-2	G										Wells for in situ vitrification
100-B/C	BH-3	G										Wells for in situ vitrification
100-D/DR	199-D2-2									Y		Abandoned
100-D/DR	199-D2-4									Y		
100-D/DR	199-D2-5	D								Y		Decommissioned 3/2/98
100-D/DR	199-D2-6	G								Y	DOE 1993a	Groundwater monitoring
100-D/DR	199-D2-8	G										
100-D/DR	199-D3-01	D										Abandoned
100-D/DR	199-D4-01											ISRM Monitoring
100-D/DR	199-D4-02	G	Y				Bden, Pden, Por				Williams et al. 2000	ISRM Monitoring
100-D/DR	199-D4-03	G	Y				Bden, Pden, Por				Williams et al. 2000	ISRM Monitoring
100-D/DR	199-D4-04	G	Y				Bden, Pden, Por					ISRM Monitoring
100-D/DR	199-D4-05	G	Y				Bden, Pden, Por					ISRM Monitoring
100-D/DR	199-D4-06	G										ISRM Monitoring
100-D/DR	199-D4-07	G									Williams et al. 2000	ISRM injection
100-D/DR	199-D4-08	G									Williams et al. 2000	ISRM Monitoring
100-D/DR	199-D4-09	G									Williams et al. 2000	ISRM injection
100-D/DR	199-D4-10	G										ISRM injection
100-D/DR	199-D4-11	G										ISRM injection
100-D/DR	199-D4-12	G										ISRM injection
100-D/DR	199-D4-16	G										ISRM Monitoring; Westbay
100-D/DR	199-D4-17	G										ISRM Monitoring; Westbay
100-D/DR	199-D4-18	G										ISRM Monitoring; Westbay
100-D/DR	199-D4-19	G										Groundwater monitoring
100-D/DR	199-D4-20	G										Groundwater monitoring
100-D/DR	199-D4-21	G										Groundwater monitoring
100-D/DR	199-D4-24	G										ISRM injection
100-D/DR	199-D4-25	G										ISRM injection
100-D/DR	199-D4-26	G										ISRM injection
100-D/DR	199-D4-27	G										ISRM injection
100-D/DR	199-D4-28	G										ISRM injection
100-D/DR	199-D4-29	G										ISRM injection
100-D/DR	199-D4-31	G										ISRM injection
100-D/DR	199-D4-32	G										ISRM injection

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-D/DR	199-D4-33	G										ISRM injection
100-D/DR	199-D4-34	G										ISRM injection
100-D/DR	199-D4-35	G										ISRM injection
100-D/DR	199-D4-36	G										ISRM injection
100-D/DR	199-D4-37	G										ISRM injection
100-D/DR	199-D4-38	G										Groundwater monitoring
100-D/DR	199-D4-39	G										Groundwater monitoring
100-D/DR	199-D5-01									Y		Abandoned
100-D/DR	199-D5-02									Y	DOE 1993a	Abandoned
100-D/DR	199-D5-10	G								Y		
100-D/DR	199-D5-11	G								Y		
100-D/DR	199-D5-12	G									DOE 1993a	Groundwater monitoring
100-D/DR	199-D5-13	G	Y	Y	Y					Y	DOE 1993a	Groundwater monitoring
100-D/DR	199-D5-14	G	Y				Bden, Por, SpG			Y	DOE 1993a; Khaleel 1999; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-15	G					Bden, Por, SpG			Y	DOE 1993a; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-16	G					Bden, Por, SpG			Y	DOE 1993a; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-17	G	Y				Bden, Por, SpG			Y	DOE 1993a; Khaleel 1999; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-18	G					Bden, Por, SpG			Y	DOE 1993a; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-19	G					Bden, Por, SpG			Y	DOE 1993a; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D5-20									Y		Groundwater monitoring
100-D/DR	199-D5-22	G								Y		Abandoned; B8778
100-D/DR	199-D5-23	G								Y		Abandoned; B8779
100-D/DR	199-D5-24									Y		Abandoned
100-D/DR	199-D5-25									Y		Abandoned
100-D/DR	199-D5-26									Y		Abandoned
100-D/DR	199-D5-27									Y		Abandoned
100-D/DR	199-D5-28									Y		Abandoned
100-D/DR	199-D5-29									Y		Abandoned
100-D/DR	199-D5-30		Y							Y	See R. Khaleel or G. Freeman for sieve data	
100-D/DR	199-D5-36	G	Y									Groundwater monitoring
100-D/DR	199-D5-37	G	Y									Groundwater monitoring
100-D/DR	199-D5-38	G	Y									Groundwater monitoring
100-D/DR	199-D5-39	G	Y									Groundwater monitoring
100-D/DR	199-D5-40	G	Y									Groundwater monitoring
100-D/DR	199-D5-41	G	Y									Groundwater monitoring
100-D/DR	199-D5-42	G	Y									Groundwater monitoring
100-D/DR	199-D5-43	G	Y									Groundwater monitoring

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-D/DR	199-D5-44	G	Y									Groundwater monitoring
100-D/DR	199-D8-02	D								Y	DOE 1993a	Decommissioned 3/11/98
100-D/DR	199-D8-03	D								Y	DOE 1993a	Decommissioned 9/2/98
100-D/DR	199-D8-04	G		Y	Y					Y		Groundwater monitoring
100-D/DR	199-D8-05	G		Y	Y					Y	DOE 1993a	Groundwater monitoring
100-D/DR	199-D8-06	G	Y	Y	Y					Y	DOE 1993a	Groundwater monitoring
100-D/DR	199-D8-53		Y							Y	DOE 1993a; Khaleel 1999; Peterson et al. 1996	ISRM extraction
100-D/DR	199-D8-54A		Y							Y	DOE 1993a; Khaleel 1999	ISRM extraction
100-D/DR	199-D8-54B		Y				Bden. Por, SpG			Y	DOE 1993a; Khaleel 1999; Peterson et al. 1996	ISRM performance
100-D/DR	199-D8-55		Y				Bden, SpG			Y	DOE 1993a; Khaleel 1999; Peterson et al. 1996	Groundwater monitoring
100-D/DR	199-D8-59									Y		Abandoned
100-D/DR	199-D8-60	G								Y		Abandoned
100-D/DR	199-D8-61									Y		Abandoned
100-D/DR	199-D8-62									Y		Abandoned
100-D/DR	199-D8-63									Y		Abandoned
100-D/DR	199-D8-64	G								Y		Abandoned
100-D/DR	199-D8-65	G								Y		Abandoned
100-D/DR	199-D8-66	G								Y		Abandoned
100-D/DR	199-D8-68		Y									ISRM compliance
100-D/DR	199-D8-69		Y									ISRM compliance
100-D/DR	199-D8-70		Y									ISRM compliance
100-D/DR	199-D8-71		Y									ISRM performance
100-F	199-F1-2	G								Y		
100-F	199-F2-1	D										
100-F	199-F2-3	D										
100-F	199-F5-1	D								Y		
100-F	199-F5-2	D								Y		
100-F	199-F5-3	D								Y		
100-F	199-F5-4	D								Y		
100-F	199-F5-5	D								Y		
100-F	199-F5-6	D								Y		
100-F	199-F5-42	G										
100-F	199-F5-43A	G								Y		
100-F	199-F5-43B	G	Y							Y	See R. Khaleel or G. Freeman for sieve data	
100-F	199-F5-44	G								Y		
100-F	199-F4-45	G								Y		
100-F	199-F5-46	G								Y		
100-F	199-F5-47	G								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-F	199-F5-48	G	Y							Y	See R. Khaleel or G. Freeman for sieve data	
100-F	199-F6-1	G								Y		
100-F	199-F7-1	D								Y		
100-F	199-F7-2	G								Y		
100-F	199-F7-3	G								Y		
100-F	199-F8-1	D								Y		
100-F	199-F8-2	D								Y		
100-F	199-F8-3	G	Y							Y	See R. Khaleel or G. Freeman for sieve data	
100-F	199-F8-4	G								Y		
100-F	116-F-1A shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-1A test pit					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-1C test pit					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-2 shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-3 test pit					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-4 shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F-6 shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F9 shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F9D test pit					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	116-F14 shallow borehole					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-F	108-F soil samples					VOC, SVOC, An, Metals, Lab Rad					DOE 1993b	
100-H	199-H3-1	D								Y	DOE 1993b	Decommissioned
100-H	199-H3-2A	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H3-2B	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H3-2C	D, G			Y		Bden			Y	Liikala et al. 1988	
100-H	199-H3-3	G	Y								Liikala et al. 1988	
100-H	199-H3-4	G	Y								Myers et al. 1996	
100-H	199-H3-5	G	Y								Myers et al. 1996	
100-H	199-H4-1	D								Y		Abandoned

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-H	199-H4-2	D	Slate	Slate		XRF (basalt)				Y	Liikala et al. 1988	Top of basalt @381 ft
100-H	199-H4-3	D								Y	DOE 1993b	
100-H	199-H4-4	D										
100-H	199-H4-5	D										
100-H	199-H4-6	D										
100-H	199-H4-7	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-8	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-9	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-10	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-11	D, G			Y					Y	Liikala et al. 1988; DOE 1993b	
100-H	199-H4-12A	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-12B	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-12C	D, G			Y		Bden			Y	Liikala et al. 1988	
100-H	199-H4-13	D, G			Y					Y	Liikala et al. 1988; DOE 1993b	
100-H	199-H4-14	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-15A	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-15B	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-15C	D, G			Y	XRF (basalt)	Bden			Y	Liikala et al. 1988	Top of basalt@314'
100-H	199-H4-16	D, G			Y					Y	Liikala et al. 1988; DOE 1993b	
100-H	199-H4-17	D, G			Y					Y	Liikala et al. 1988; DOE 1993b	
100-H	199-H4-18	D, G			Y					Y	Liikala et al. 1988	
100-H	199-H4-45	G	Y		Y					Y	Peterson et al. 1996; DOE 1993b; Khaleel 1999	
100-H	199-H4-46	D, G	Y							Y	Peterson et al. 1996; DOE 1993b; Khaleel 1999	
100-H	199-H4-47	D, G								Y	Peterson et al. 1996; DOE 1993b	
100-H	199-H4-48	D, G								Y	Peterson et al. 1996; DOE 1993b	
100-H	199-H4-49	D, G								Y	Peterson et al. 1996; DOE 1993b	
100-H	199-H4-57	G										
100-H	199-H4-58	G								Y		Vadose-zone hole
100-H	199-H4-59									Y		Vadose-zone hole
100-H	199-H4-60	G								Y		Vadose-zone hole
100-H	199-H4-61	G								Y		Vadose-zone hole
100-H	199-H4-62									Y		Vadose-zone hole
100-H	199-H4-63	G	Y								Myers et al. 1996	
100-H	199-H4-64	G	Y								Myers et al. 1996	
100-H	199-H4-65	G	Y									

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-H	199-H5-1A	G			Y	TFe/Fe2				Y	Peterson et al. 1996; DOE 1993b	
100-H	199-H5-1B	Well Summary			Y						Peterson et al. 1996; DOE 1993b; HWIS	
100-H	199-H5-2	G	Y		Y		Pden, Bden, Por				Vermeul et al. 1995; Fruchter et al. 1996	ISRM injection well; Microbiology
100-H	199-H5-3	G	Y		Y		Pden, Bden, Por, Hydrom				Vermeul et al. 1995; Fruchter et al. 1996	Piezometer well; Microbiology
100-H	199-H5-4	G	Y		Y		Pden				Vermeul et al. 1995; Fruchter et al. 1996	Piezometer well; Microbiology
100-H	199-H5-5	As-built	Y		Y		Pden, Bden, Por				Vermeul et al. 1995; Fruchter et al. 1996; HWIS	Piezometer well; Microbiology
100-H	199-H5-6	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-7	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-8	G	Y		Y		Pden, Bden, Por				Vermeul et al. 1995; Fruchter et al. 1996	Microbiology
100-H	199-H5-9	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-10	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-11	G	Y		Y		Pden, Bden, Por				Vermeul et al. 1995; Fruchter et al. 1996	Microbiology
100-H	199-H5-12	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-13	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-14	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H5-15	As-built	Y								Fruchter et al. 1996; HWIS	
100-H	199-H6-1	G	Y							Y	Peterson et al. 1996; DOE 1993b	
100-H	Redox-core1											
100-H	Redox-core2											
100-H	Redox-core3											
100-H	Redox-core4											
100-H	Redox-core5											
100-H	Redox-core6											
100-H	Redox-core7										Fruchter et al. 1996	Abandoned corehole
100-H	Redox-core8											
100-K	199-K-1	D										
100-K	199-K-2	D										
100-K	199-K-3	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-K	199-K-4	D										
100-K	199-K-5	D										
100-K	199-K-6	D										
100-K	199-K-7	D										
100-K	199-K-8	D										
100-K	199-K-9	D										
100-K	199-K-10	D, As-built										
100-K	199-K-11	D, As-built									HWIS	
100-K	199-K-12	D, As-built										
100-K	199-K-13	D, As-built									HWIS	
100-K	199-K-14	D, As-built										aka 105-KW-1
100-K	199-K-15	D, As-built									HWIS	
100-K	199-K-16	D, As-built									HWIS	
100-K	199-K-17	D, As-built										
100-K	199-K-18	D, As-built									HWIS	
100-K	199-K-19	D, As-built									HWIS	
100-K	199-K-20	D, As-built									HWIS	
100-K	199-K-21	D, As-built									HWIS	
100-K	199-K-22	D, As-built									HWIS	
100-K	199-K-23	D, As-built									HWIS	
100-K	199-K-24	D, As-built										
100-K	199-K-25	D, As-built										
100-K	199-K-26	D										
100-K	199-K-27	D, As-built									HWIS	
100-K	199-K-28	D, As-built									HWIS	
100-K	199-K-29	D, As-built										
100-K	199-K-30	D, As-built									HWIS	
100-K	199-K-31	D, As-built									HWIS	
100-K	199-K-32A	Well summary									HWIS	Aquifer test (slug test)
100-K	199-K-32B	Well summary									HWIS	
100-K	199-K-33	Well summary	Y								see R. Khaleel or G. Freeman for sieve data	Aquifer test (slug test)
100-K	199-K-34	D, G, Well summary										Aquifer test (slug test)
100-K	199-K-35	D, G, Well summary	Y								see R. Khaleel or G. Freeman for sieve data	Aquifer test (slug test)
100-K	199-K-36	D, G, Well summary										Aquifer test (slug test)
100-K	199-K-37	D, G, Well summary	Y								see R. Khaleel or G. Freeman for sieve data	Aquifer test (slug test)
100-K	199-K-38	D, G, Well summary										
100-K	199-K-39	D, G, Well summary										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-K	199-K-40	D, G, Well summary										
100-K	199-K-41	D, G, Well summary										
100-K	199-K-106A	D, G, Well summary	Y	Y	Y	Field Rad, Field VOA	Pden, Bden, Por	XRD			HWIS	Aquifer Slug Test
100-K	199-K-107A	D, G, Well summary	Y	Y	Y	Field Rad, Field VOA	Pden, Bden, Por	XRD			HWIS	Aquifer Slug Test
100-K	199-K-108A	Well summary									HWIS	
100-K	199-K-109A	D, G, Well summary	Y	Y	Y	Field Rad, Field VOA	Pden, Bden, Por	XRD			HWIS	Aquifer Slug Test
100-K	199-K-110A	D, G, Well summary	Y	Y	Y	Field Rad, Field VOA	Pden, Bden, Por	XRD			HWIS	Aquifer Slug Test
100-K	199-K-111A	D, G, Well summary	Y	Y	Y	Field Rad, Field VOA	Pden, Bden, Por	XRD			HWIS	
100-K	199-K-112A	G, Well summary	Y								HWIS	CH2 Library
100-K	199-K-113A	G, Well summary	Y								HWIS	
100-K	199-K-114A	G, Well summary	Y								HWIS	
100-K	199-K-115A	G, Well summary	Y								HWIS	
100-K	199-K-116A	G, Well summary	Y								HWIS	
100-K	199-K-117A	G, Well summary	Y								HWIS	
100-K	199-K-118A	G, Well summary	Y								HWIS	
100-K	199-K-119A	G, Well summary	Y								HWIS	
100-K	199-K-120A	G, Well summary	Y								HWIS	
100-K	199-K-121A	G, Well summary	Y								HWIS	
100-K	199-K-122A	G, Well summary	Y								HWIS	
100-K	199-K-123A	G, Well summary	Y								HWIS	
100-K	199-K-124A	G, Well summary	Y								HWIS	
100-K	199-K-125A	Well summary									HWIS	
100-K	199-K-126A	Well summary									HWIS	
100-N	199-N-1	D								Y		
100-N	199-N-2	D								Y		
100-N	199-N-3	D								Y		
100-N	199-N-4	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-N	199-N-5	D								Y		
100-N	199-N-6	D								Y		
100-N	199-N-7	D								Y		Infiltration Test
100-N	199-N-8P	D								Y		
100-N	199-N-8Q	D								Y		
100-N	199-N-8R	D								Y		
100-N	199-N-8S	D								Y		
100-N	199-N-8T	D								Y		
100-N	199-N-8U	D								Y		
100-N	199-N-8V	D								Y		
100-N	199-N-9	D								Y		
100-N	199-N-12	D								Y		
100-N	199-N-14	D								Y		
100-N	199-N-15	D								Y		
100-N	199-N-16	D								Y		Drilled per spec H-517-C1
100-N	199-N-17	D								Y		Drilled per spec H-517-C1
100-N	199-N-18	D								Y		Drilled per spec H-517-C1
100-N	199-N-19	D								Y		Drilled per spec H-517-C1
100-N	199-N-20	D								Y		Drilled per spec H-517-C1
100-N	199-N-21A	D								Y		Drilled per spec H-517-C1
100-N	199-N-22	D								Y		Drilled per spec H-517-C1
100-N	199-N-23	D								Y		Drilled per spec H-517-C1
100-N	199-N-24	D								Y		Drilled per spec H-517-C1
100-N	199-N-25	D								Y		Drilled per spec H-517-C1
100-N	199-N-26	D								Y		Drilled per spec H-517-C1
100-N	199-N-27	D								Y	Prater 1984	
100-N	199-N-28	D								Y	Prater 1984	
100-N	199-N-29	D								Y	Prater 1984	
100-N	199-N-30	D								Y	Prater 1984	
100-N	199-N-31	D								Y	Prater 1984	
100-N	199-N-32	D								Y	Prater 1984	
100-N	199-N-33	D								Y	Prater 1984	
100-N	199-N-34	D								Y	Prater 1984	
100-N	199-N-35	D								Y		
100-N	199-N-36	D, G								Y		
100-N	199-N-37	D, G								Y		
100-N	199-N-38	D, G								Y		
100-N	199-N-39	D, G								Y		
100-N	199-N-40	D, G								Y		
100-N	199-N-41	D, G								Y	Hartman and Lindsey 1993	
100-N	199-N-42	D, G								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-N	199-N-43	D, G								Y	Hartman and Lindsey 1993	
100-N	199-N-44	D, G								Y		
100-N	199-N-45	D, G								Y		
100-N	199-N-47	D								Y		
100-N	199-N-48	D								Y		
100-N	199-N-49	D								Y		
100-N	199-N-50	D								Y		
100-N	199-N-51	D								Y		
100-N	199-N-52	D								Y		
100-N	199-N-53	D								Y		
100-N	199-N-54	D, G								Y		Step drawdown test
100-N	199-N-55	D, G								Y		Step drawdown test
100-N	199-N-56	D, G								Y		Step drawdown test
100-N	199-N-57	D, G								Y		Step drawdown test
100-N	199-N-58	D, G								Y		Step drawdown test
100-N	199-N-59	D, G								Y		Development/Recovery test
100-N	199-N-60	D, G								Y		Constant Discharge test
100-N	199-N-61	D, G								Y		Development/Recovery test
100-N	199-N-62	D, G								Y		
100-N	199-N-63	D, G								Y		
100-N	199-N-64	D, G								Y		
100-N	199-N-65	D, G								Y		
100-N	199-N-66	D, G								Y		
100-N	199-N-67	D, G								Y		
100-N	199-N-69	D, G								Y	Gilmore et al. 1989	Aquifer Pumping Tests (Gilmore et al. 1989)
100-N	199-N-70	G								Y	Gilmore et al. 1989	Aquifer Pumping Tests (Gilmore et al. 1989)
100-N	199-N-71	D, G								Y		Drilled per spec WHC-S-014; Westinghouse "EII" Procedures Aquifer Pumping Test
100-N	199-N-72	D, G								Y		Drilled per spec WHC-S-014; Westinghouse "EII" Procedures Aquifer Pumping Test
100-N	199-N-73	D, G								Y		Drilled per spec WHC-S-014; Westinghouse "EII" Procedures Aquifer Pumping Test
100-N	199-N-74	D, G								Y		Drilled per spec WHC-S-014; Westinghouse "EII" Procedures Aquifer Pumping Test

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
100-N	199-N-75	D, G								Y		Drilled per spec WHC-S-014; Westinghouse “EII” Procedures Aquifer Pumping Test
100-N	199-N-76	D, G								Y		
100-N	199-N-77	D, G								Y		
100-N	199-N-80	D, G	Y							Y	see R. Khaleel or G. Freeman for sieve data	
100-N	199-N-81	D, G								Y		
100-N	199-N-83	D, G								Y		
100-N	199-N-103A	G	Y									
100-N	199-N-104	G	Y									
100-N	199-N-105	G	Y									
100-N	100N Backwash Lake		Y			pH	Cond				Opitz 1982	
200-E	299-E13-1	D	SLATE	SLATE		pH	%GSSC, 15-ATM, CEC			Y	McHenry 1957	
200-E	299-E13-10	D	SLATE	SLATE			Por			Y	Bierschenk 1959	
200-E	299-E13-11	D	SLATE	SLATE						Y		
200-E	299-E13-12	D	SLATE	SLATE						Y		
200-E	299-E13-13	D	SLATE	SLATE						Y		
200-E	299-E13-14	D	SLATE	SLATE		Lab Rad				Y	Haney 1967	
200-E	299-E13-15	D	SLATE	SLATE						Y		
200-E	299-E13-16	D	SLATE	SLATE						Y		
200-E	299-E13-17	D	SLATE	SLATE						Y		
200-E	299-E13-18	D	SLATE	SLATE						Y		
200-E	299-E13-19	D	SLATE	SLATE						Y		
200-E	299-E13-2	D	SLATE	SLATE						Y		
200-E	299-E13-20	D				Field Rad						
200-E	299-E13-21	D				Field Rad						
200-E	299-E13-3	D	SLATE	SLATE		Lab Rad				Y	Haney 1967	
200-E	299-E13-4	D	SLATE	SLATE						Y		
200-E	299-E13-5	D	SLATE	SLATE		pH	%GSSC, 15-ATM, CEC			Y	McHenry 1957	
200-E	299-E13-51	D				Field Rad						
200-E	299-E13-52	D				Field Rad						
200-E	299-E13-54	D				Field Rad				Y		
200-E	299-E13-55	D								Y		
200-E	299-E13-56	D				Field Rad				Y		
200-E	299-E13-57	D				Field Rad				Y		
200-E	299-E13-58	D				Field Rad				Y		
200-E	299-E13-59	D				Field Rad				Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E13-6	D	SLATE	SLATE						Y		
200-E	299-E13-60	D				Field Rad				Y		
200-E	299-E13-61	D				Field Rad				Y		
200-E	299-E13-7	D	SLATE	SLATE		Lab Rad				Y	Haney 1967	
200-E	299-E13-8	D	SLATE	SLATE		Sorption	CEC			Y	Routson et at. 1981	
200-E	299-E13-9	D	SLATE	SLATE						Y		
200-E	299-E17-1	D	SLATE	SLATE						Y		
200-E	299-E17-10	D										
200-E	299-E17-11	D				Field Rad				Y		
200-E	299-E17-12	D, G								Y		
200-E	299-E17-13	D, G								Y		
200-E	299-E17-14	G			Y					Y		
200-E	299-E17-15	G			Y					Y		
200-E	299-E17-16	G			Y					Y		
200-E	299-E17-17	G			Y	Lab Rad				Y	Lindberg files	
200-E	299-E17-18	G			Y					Y	Lindberg files	
200-E	299-E17-19	G			Y	Lab Rad, VOA, NO3				Y	Lindberg files	
200-E	299-E17-2	D	SLATE	SLATE						Y		
200-E	299-E17-20	G	Y		Y	Lab Rad, VOA, NO3				Y	Lindberg files; Valenta et al. 2000	
200-E	299-E17-21	G	Y						Paleomag	Y	Valenta et al. 2000 (Sieve data); Reidel and Horton 1999	
200-E	299-E17-3	D	SLATE	SLATE						Y		
200-E	299-E17-4	D	SLATE	SLATE			CEC			Y	Routson et al. 1981; Delegard and Barney, 1983	
200-E	299-E17-5	D	SLATE	SLATE						Y		
200-E	299-E17-50	D				Field Rad				Y		
200-E	299-E17-51	D				Field Rad				Y		
200-E	299-E17-53	D, G								Y		
200-E	299-E17-54	D, G								Y		
200-E	299-E17-6	D	SLATE	SLATE						Y		
200-E	299-E17-7	D										
200-E	299-E17-8	D	SLATE	SLATE						Y		
200-E	299-E17-9	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E18-1	D, G	SLATE	SLATE		XRF,Metals,VOA				Y	Chamness et al. 1990	
200-E	299-E18-2	D, G	SLATE	SLATE		Metals				Y	Chamness et a1. 1990	
200-E	299-E18-3	D, G	SLATE	SLATE		XRF				Y	Chamness et a1. 1990	
200-E	299-E18-4	D, G	SLATE	SLATE		Metals, VOA				Y	Chamness et a1. 1990	
200-E	299-E19-1	D								Y		
200-E	299-E23-1	D	SLATE	SLATE						Y		
200-E	299-E23-2	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E24-1	D	SLATE	SLATE						Y		
200-E	299-E24-10	D				Field Rad				Y		
200-E	299-E24-100	D										
200-E	299-E24-101	D										
200-E	299-E24-102	D										
200-E	299-E24-103	D										
200-E	299-E24-104	D										
200-E	299-E24-105	D										
200-E	299-E24-106	D										
200-E	299-E24-107	D										
200-E	299-E24-108	D										
200-E	299-E24-109	D										
200-E	299-E24-11	D	SLATE	SLATE						Y		
200-E	299-E24-110	D										
200-E	299-E24-112	D										
200-E	299-E24-113	D										
200-E	299-E24-114	D								Y		
200-E	299-E24-115	D								Y		
200-E	299-E24-116	D								Y		
200-E	299-E24-117	D								Y		
200-E	299-E24-118	D	Y							Y	Valenta et al. 2000	
200-E	299-E24-12	D	SLATE	SLATE						Y		
200-E	299-E24-121	D								Y		
200-E	299-E24-122	D								Y		
200-E	299-E24-123	D								Y		
200-E	299-E24-124A	D										
200-E	299-E24-124B	D										
200-E	299-E24-124C	D										
200-E	299-E24-124D	D										
200-E	299-E24-124E	D										
200-E	299-E24-124F	D										
200-E	299-E24-124G	D										
200-E	299-E24-124H	D										
200-E	299-E24-124I	D										
200-E	299-E24-124J	D										
200-E	299-E24-13	D	SLATE	SLATE						Y		
200-E	299-E24-14	D	SLATE	SLATE						Y		
200-E	299-E24-15	D, G				Field Rad				Y		
200-E	299-E24-155	D								Y		
200-E	299-E24-156	D	SLATE	SLATE						Y		
200-E	299-E24-157	D	SLATE	SLATE						Y		
200-E	299-E24-158	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E24-159	D	SLATE	SLATE						Y		
200-E	299-E24-16	G			Y	Lab Rad, VOA, TOC				Y	Lindberg files	
200-E	299-E24-160	D, G								Y		
200-E	299-E24-17	G			Y	Lab Rad, VOA, NO3				Y	Lindberg files	
200-E	299-E24-18	G			Y					Y		
200-E	299-E24-19	G	SLATE		Y	Y				Y	Pearson 1990; Valenta et al. 2000 (sieve data)	
200-E	299-E24-1A					Lab Rad					Haney 1967	
200-E	299-E24-2	D	SLATE	SLATE						Y		
200-E	299-E24-20	G								Y		
200-E	299-E24-3	D	SLATE	SLATE						Y		
200-E	299-E24-4	D	SLATE	SLATE						Y		
200-E	299-E24-5	D	SLATE	SLATE						Y		
200-E	299-E24-51	D										
200-E	299-E24-52	D										
200-E	299-E24-53	D	SLATE	SLATE						Y		
200-E	299-E24-54	D	SLATE	SLATE						Y		
200-E	299-E24-55	D								Y		
200-E	299-E24-56	D	SLATE	SLATE						Y		
200-E	299-E24-57	D	SLATE	SLATE						Y		
200-E	299-E24-58	D	SLATE	SLATE						Y		
200-E	299-E24-59	D	SLATE	SLATE						Y		
200-E	299-E24-6	D								Y		
200-E	299-E24-60	D	SLATE	SLATE						Y		
200-E	299-E24-63	D										
200-E	299-E24-64	D										
200-E	299-E24-66	D								Y		
200-E	299-E24-67	D								Y		
200-E	299-E24-68	D								Y		
200-E	299-E24-69	D										
200-E	299-E24-7	D	SLATE	SLATE						Y		
200-E	299-E24-70	D								Y		
200-E	299-E24-71	D								Y		
200-E	299-E24-72	D								Y		
200-E	299-E24-73	D										
200-E	299-E24-75	D								Y		
200-E	299-E24-76	D										
200-E	299-E24-77	D										
200-E	299-E24-78	D								Y		
200-E	299-E24-79	D	SLATE	SLATE						Y		
200-E	299-E24-8	D	SLATE	SLATE						Y		
200-E	299-E24-80	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E24-81	D										
200-E	299-E24-82	D										
200-E	299-E24-83	D										
200-E	299-E24-84	D										
200-E	299-E24-85	D										
200-E	299-E24-86	D										
200-E	299-E24-87	D										
200-E	299-E24-88	D										
200-E	299-E24-89	D										
200-E	299-E24-9	D	SLATE	SLATE						Y		
200-E	299-E24-90	D										
200-E	299-E24-91	D										
200-E	299-E24-92	D	SLATE	SLATE						Y		
200-E	299-E24-93	D								Y		
200-E	299-E24-94	D								Y		
200-E	299-E24-95	D	SLATE	SLATE						Y		
200-E	299-E24-96	D										
200-E	299-E24-97	D										
200-E	299-E24-98	D										
200-E	299-E24-99	D										
200-E	299-E25-1	D	SLATE	SLATE		Field Rad	%GSSC			Y	Brown 1963	
200-E	299-E25-10	D	SLATE	SLATE						Y		
200-E	299-E25-100	D	SLATE	SLATE						Y		
200-E	299-E25-1000	G		Y	Y	Field Rad (Alpha, Beta/Gamma)				Y	Swanson 1994	
200-E	299-E25-101	D	SLATE	SLATE						Y		
200-E	299-E25-102	D	SLATE	SLATE						Y		
200-E	299-E25-103	D	SLATE	SLATE						Y		
200-E	299-E25-104	D	SLATE	SLATE						Y		
200-E	299-E25-105	D	SLATE	SLATE						Y		
200-E	299-E25-106	D	SLATE	SLATE						Y		
200-E	299-E25-107	D	SLATE	SLATE						Y		
200-E	299-E25-108	D	SLATE	SLATE						Y		
200-E	299-E25-109	D	SLATE	SLATE						Y		
200-E	299-E25-11	D	SLATE	SLATE						Y		
200-E	299-E25-110	D	SLATE	SLATE						Y		
200-E	299-E25-111	D	SLATE	SLATE						Y		
200-E	299-E25-112	D	SLATE	SLATE						Y		
200-E	299-E25-113	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E25-114	D								Y		
200-E	299-E25-115	D	SLATE	SLATE						Y		
200-E	299-E25-116	D	SLATE	SLATE		Field Rad				Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E25-117	D	SLATE	SLATE						Y		
200-E	299-E25-118	D	SLATE	SLATE								
200-E	299-E25-119	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E25-12	D	SLATE	SLATE						Y		
200-E	299-E25-120	D	SLATE	SLATE						Y		
200-E	299-E25-121	D	SLATE	SLATE						Y		1-ft sample interval
200-E	299-E25-122	D	SLATE	SLATE						Y		
200-E	299-E25-123	D	SLATE	SLATE						Y		
200-E	299-E25-124	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E25-127	D								Y		
200-E	299-E25-128	D				Field Rad						
200-E	299-E25-13	D	SLATE	SLATE						Y		
200-E	299-E25-132	D								Y		
200-E	299-E25-14	D				Field Rad	%GSSC				Brown 1963	
200-E	299-E25-146	D	SLATE	SLATE						Y		
200-E	299-E25-147	D								Y		
200-E	299-E25-148	D				Field Rad						
200-E	299-E25-149	D				Field Rad						
200-E	299-E25-15	D	SLATE	SLATE				XRD, EM		Y	Ames 1976	
200-E	299-E25-152	D										
200-E	299-E25-153	D								Y		
200-E	299-E25-154	D								Y		
200-E	299-E25-155	D								Y		
200-E	299-E25-156	D										
200-E	299-E25-157	D								Y		
200-E	299-E25-158	D								Y		
200-E	299-E25-159	D								Y		
200-E	299-E25-16	D										
200-E	299-E25-160	D								Y		
200-E	299-E25-161	D								Y		
200-E	299-E25-162	D								Y		
200-E	299-E25-163	D								Y		
200-E	299-E25-164	D								Y		
200-E	299-E25-165	D								Y		
200-E	299-E25-166	D								Y		
200-E	299-E25-167	D								Y		
200-E	299-E25-168	D								Y		
200-E	299-E25-169	D				Field Rad						(Same as well 299-E25-98
200-E	299-E25-17	D	SLATE	SLATE						Y		
200-E	299-E25-170	D										
200-E	299-E25-171	D										
200-E	299-E25-172	D				Field Rad						

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E25-173	D				Field Rad						
200-E	299-E25-174	D										
200-E	299-E25-179	D										
200-E	299-E25-18	D	SLATE	SLATE						Y		
200-E	299-E25-181	D										
200-E	299-E25-182	D										
200-E	299-E25-183	D										
200-E	299-E25-184	D								Y		
200-E	299-E25-185	D										
200-E	299-E25-189	D										
200-E	299-E25-19	D	SLATE	SLATE						Y		
200-E	299-E25-190	D				Field Rad				Y		
200-E	299-E25-191	D				Field Rad				Y		
200-E	299-E25-192	D				Field Rad						
200-E	299-E25-193	D				Field Rad				Y		
200-E	299-E25-194	D								Y		
200-E	299-E25-195	D								Y		
200-E	299-E25-196	D								Y		
200-E	299-E25-197	D								Y		
200-E	299-E25-198	D								Y		
200-E	299-E25-199	D								Y		
200-E	299-E25-2	D	SLATE	SLATE		pH	%GSSC, CEC, 15-Atm			Y	Brown 1963; McHenry 1957	
200-E	299-E25-20	D	SLATE	SLATE						Y		
200-E	299-E25-202	D								Y		
200-E	299-E25-203	D								Y		
200-E	299-E25-204	D				Field Rad						
200-E	299-E25-205	D, G								Y		
200-E	299-E25-206	D, G								Y		
200-E	299-E25-207	D, G								Y		
200-E	299-E25-208	D, G				Lab Rad				Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-209	D, G								Y		
200-E	299-E25-21	D								Y		
200-E	299-E25-210	D, G				Lab Rad					Swanson et al. 1988; DOE 1990	
200-E	299-E25-211	D, G								Y		
200-E	299-E25-212	D, G				Lab Rad				Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-213	D, G				Lab Rad				Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-214	D, G				Lab Rad				Y	Swanson et al. 1988; DOE 1990	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E25-215	D, G								Y		
200-E	299-E25-216	D, G								Y		
200-E	299-E25-217	D, G				Lab Rad				Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-218	D, G								Y		
200-E	299-E25-219	D, G								Y		
200-E	299-E25-22	D	SLATE							Y		
200-E	299-E25-220	D, G								Y		
200-E	299-E25-221	D, G				Lab Rad					Swanson et al. 1988; DOE 1990	
200-E	299-E25-222	D, G	SLATE	SLATE	Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-223	D, G	SLATE		Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-224	D, G			Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-225	D, G	SLATE		Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-226	D, G	SLATE		Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-227	D, G	SLATE		Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-228	D, G	SLATE							Y		
200-E	299-E25-229	D, G	Y							Y	Serkowski 1986	
200-E	299-E25-23	D								Y		
200-E	299-E25-230	D, G	Y							Y	Serkowski 1986	
200-E	299-E25-231	D, G	SLATE	Y						Y	Serkowski 1986	
200-E	299-E25-232	D, G	SLATE	Y						Y	Serkowski 1986	
200-E	299-E25-233	D, G								Y		
200-E	299-E25-234	D, G	SLATE		Y		Bden			Y	DOE 1990; Swanson et al. 1988; Smoot et al. 1989	
200-E	299-E25-235	D, G	SLATE	SLATE	Y					Y	DOE 1990	
200-E	299-E25-24	D								Y		
200-E	299-E25-25	D, G	SLATE		Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-26	D, G	SLATE	SLATE	Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-27	D, G			Y	Metals, Alk, Lab Rad	CEC, Cond			Y	Swanson et al. 1988; DOE 1990	
200-E	299-E25-28	D, G	SLATE		Y					Y	DOE 1990	
200-E	299-E25-29	D, G	SLATE	SLATE	Y					Y	DOE 1990	
200-E	299-E25-3	D	SLATE	SLATE						Y		
200-E	299-E25-30	D, G	SLATE	SLATE	Y					Y	DOE 1990	
200-E	299-E25-31	D, G	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E25-32	D, G	SLATE	SLATE	Y					Y	DOE 1990	
200-E	299-E25-33	D, G			Y					Y	DOE 1990	
200-E	299-E25-34	G			Y					Y		
200-E	299-E25-35	G			Y					Y		
200-E	299-E25-36	G								Y		
200-E	299-E25-37	G	SLATE		Y	Y				Y	Teel 1990	
200-E	299-E25-38	G	SLATE		Y	Y				Y	Teel 1990	
200-E	299-E25-39	G		Y	Y					Y	Swanson 1992	
200-E	299-E25-4	D	SLATE	SLATE						Y		
200-E	299-E25-40	G	SLATE		Y	Y				Y	Pearson 1990	
200-E	299-E25-41	G	SLATE		Y	Y				Y	Pearson 1990	
200-E	299-E25-42	G	Y	Y	Y					Y	Kasza 1992	
200-E	299-E25-43	G	Y	Y	Y					Y	Kasza 1992	
200-E	299-E25-44	G		Y	Y					Y	Swanson 1993	
200-E	299-E25-45	G		Y	Y					Y	Swanson 1993	
200-E	299-E25-46	G	Y	Y	Y					Y	Caggiano 1993	
200-E	299-E25-47	G		Y	Y					Y	Kasza 1993	
200-E	299-E25-48	G		Y	Y					Y	Kasza 1993	
200-E	299-E25-49	G		Y	Y	Field Rad (Alpha, Beta/Gamma)				Y	Swanson 1994	
200-E	299-E25-5	D	SLATE	SLATE		MiscMetals				Y	Haney 1967	
200-E	299-E25-50	G		Y	Y	Field Rad (Alpha, Beta/Gamma)				Y	Swanson 1994	
200-E	299-E25-51	D	SLATE	SLATE						Y		
200-E	299-E25-53	D	SLATE	SLATE						Y		
200-E	299-E25-54	D								Y		
200-E	299-E25-55	D	SLATE	SLATE						Y		
200-E	299-E25-56	D								Y		
200-E	299-E25-57	D	SLATE	SLATE						Y		
200-E	299-E25-58	D	SLATE	SLATE						Y		
200-E	299-E25-59		SLATE	SLATE								
200-E	299-E25-6	D	SLATE	SLATE		MiscMetals				Y	Haney 1967	
200-E	299-E25-60		SLATE	SLATE						Y		
200-E	299-E25-61	D	SLATE	SLATE						Y		
200-E	299-E25-62	D										
200-E	299-E25-63	D	SLATE	SLATE						Y		
200-E	299-E25-65	D	SLATE	SLATE						Y		
200-E	299-E25-66	D								Y		
200-E	299-E25-67	D	SLATE	SLATE						Y		
200-E	299-E25-68	D				Field Rad				Y		
200-E	299-E25-69	D	SLATE	SLATE						Y		
200-E	299-E25-7	D	SLATE	SLATE						Y		
200-E	299-E25-70	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E25-71	D								Y		
200-E	299-E25-72	D				Field Rad				Y		
200-E	299-E25-73	D								Y		
200-E	299-E25-74	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E25-75	D	SLATE	SLATE						Y		
200-E	299-E25-76	D										
200-E	299-E25-77	D	SLATE	SLATE						Y		
200-E	299-E25-78	D								Y		
200-E	299-E25-79	D	SLATE	SLATE						Y		
200-E	299-E25-8	D	SLATE	SLATE						Y		
200-E	299-E25-80	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E25-81	D	SLATE	SLATE						Y		
200-E	299-E25-82	D								Y		
200-E	299-E25-83	D								Y		
200-E	299-E25-84	D								Y		
200-E	299-E25-85	D	SLATE	SLATE						Y		
200-E	299-E25-86	D	SLATE	SLATE						Y		
200-E	299-E25-87	D								Y		
200-E	299-E25-88	D								Y		
200-E	299-E25-89	D	SLATE	SLATE						Y		
200-E	299-E25-9	D	SLATE	SLATE						Y		
200-E	299-E25-90	D								Y		
200-E	299-E25-91	D	SLATE	SLATE						Y		
200-E	299-E25-92	D								Y		
200-E	299-E25-93		SLATE	SLATE						Y		
200-E	299-E25-97	D								Y		
200-E	299-E25-98	D				Field Rad						
200-E	299-E25-99	D	SLATE	SLATE						Y		
200-E	299-E26-1	D	SLATE	SLATE						Y		
200-E	299-E26-10	G	Y	SLATE		Field pH, XRF	SpG, %GSSC	XRD		Y	Doremus and Pearson 1990; Sweeney 1993b; Sweeney 1994	
200-E	299-E26-11	G	SLATE	SLATE		Field pH, XRF	SpG, %GSSC	XRD		Y	Doremus and Pearson 1990; Sweeney 1993b; Sweeney 1994	
200-E	299-E26-12	G		Y	Y					Y	Kasza 1992	
200-E	299-E26-12	G								Y		
200-E	299-E26-13	G	Y	Y	Y					Y	Kasza 1992	
200-E	299-E26-13	G								Y		
200-E	299-E26-2	D	SLATE	SLATE						Y		
200-E	299-E26-3	D	SLATE	SLATE						Y		
200-E	299-E26-4	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E26-5	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E26-51	D								Y		
200-E	299-E26-52	D				Field Rad				Y		
200-E	299-E26-53	D				Field Rad				Y		
200-E	299-E26-54	D								Y		
200-E	299-E26-55	D								Y		
200-E	299-E26-56	D								Y		
200-E	299-E26-57	D				Field Rad				Y		
200-E	299-E26-58	D								Y		
200-E	299-E26-59	D								Y		
200-E	299-E26-6	D	SLATE	SLATE			%GSSC			Y	Brown 1963	
200-E	299-E26-60	D				Field Rad				Y		
200-E	299-E26-61	D				Field Rad				Y		
200-E	299-E26-62	D				Field Rad				Y		
200-E	299-E26-63	D				Field Rad				Y		
200-E	299-E26-64	D								Y		
200-E	299-E26-65	D								Y		
200-E	299-E26-66	D				Field Rad				Y		
200-E	299-E26-67	D								Y		
200-E	299-E26-68	D								Y		
200-E	299-E26-69	D								Y		
200-E	299-E26-7	D										
200-E	299-E26-70	D								Y		
200-E	299-E26-71	D				Field Rad				Y		
200-E	299-E26-72	D								Y		
200-E	299-E26-73	D								Y		
200-E	299-E26-74	D				Field Rad				Y		
200-E	299-E26-75	D				Field Rad				Y		
200-E	299-E26-76	D				Field Rad				Y		
200-E	299-E26-8	D								Y		
200-E	299-E26-9	G	Y	SLATE		Field pH, XRF	SpG, %GSSC	XRD		Y	Doremus and Pearson 1990; Sweeney 1993b; Sweeney 1994	
200-E	299-E27-1	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E27-10	G	SLATE							Y		
200-E	299-E27-100	D	SLATE	SLATE						Y		
200-E	299-E27-101	D	SLATE	SLATE						Y		
200-E	299-E27-102	D	SLATE	SLATE						Y		
200-E	299-E27-103	D								Y		
200-E	299-E27-104	D								Y		
200-E	299-E27-105	D								Y		
200-E	299-E27-106	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E27-107	D								Y		
200-E	299-E27-108	D								Y		
200-E	299-E27-109	D								Y		
200-E	299-E27-11	G			Y	An, TOC, VOA, Field Rad				Y	Goodwin and Bjornstad 1990	
200-E	299-E27-115	D	SLATE	SLATE						Y		
200-E	299-E27-116	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E27-117	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E27-118	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E27-119	D	SLATE	SLATE						Y		
200-E	299-E27-12	G								Y		
200-E	299-E27-120	D								Y		
200-E	299-E27-121	D								Y		
200-E	299-E27-122	D								Y		
200-E	299-E27-124	D								Y		
200-E	299-E27-125	D								Y		
200-E	299-E27-126	D				Field Rad				Y		
200-E	299-E27-127	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E27-128	D				Field Rad				Y		
200-E	299-E27-129	D				Field Rad				Y		
200-E	299-E27-13	G	SLATE		Y	Y				Y	Pearson 1990	
200-E	299-E27-130	D				Field Rad				Y		
200-E	299-E27-131	D				Field Rad				Y		
200-E	299-E27-132	D				Field Rad				Y		
200-E	299-E27-133	D				Field Rad				Y		
200-E	299-E27-135	D								Y		
200-E	299-E27-137	D, G								Y		
200-E	299-E27-138	D, G				Field Rad						
200-E	299-E27-139	D, G								Y		
200-E	299-E27-14	G			Y	Y				Y	Pearson 1990	
200-E	299-E27-140	D, G				Field Rad				Y		
200-E	299-E27-141	D, G								Y		
200-E	299-E27-142	D								Y		
200-E	299-E27-143	D								Y		
200-E	299-E27-144	D								Y		
200-E	299-E27-145	D								Y		
200-E	299-E27-146	D								Y		
200-E	299-E27-147	D	SLATE	SLATE						Y		
200-E	299-E27-148	D, G				Lab Rad				Y	Subrahmanyam 1986	
200-E	299-E27-149	D, G								Y		
200-E	299-E27-15	G			Y	Y				Y	Pearson 1990	
200-E	299-E27-150	D, G								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E27-151	D, G								Y		
200-E	299-E27-152	D				Lab Rad				Y	Subrahmanyam 1986	
200-E	299-E27-153	D, G				Lab Rad				Y	Subrahmanyam 1986	
200-E	299-E27-154	D, G										
200-E	299-E27-155	D, G								Y		
200-E	299-E27-16	G								Y		
200-E	299-E27-17	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E27-18	G		Y	Y					Y	Bjornstad 1993	
200-E	299-E27-19	G		Y	Y					Y	Bjornstad 1993	
200-E	299-E27-2	D, G								Y		
200-E	299-E27-3	D	SLATE	SLATE						Y		
200-E	299-E27-5	D	SLATE	SLATE						Y		
200-E	299-E27-51	D										
200-E	299-E27-52	D								Y		
200-E	299-E27-53	D										
200-E	299-E27-54	D										
200-E	299-E27-55	D										
200-E	299-E27-56	D										
200-E	299-E27-57	D										
200-E	299-E27-58	D										
200-E	299-E27-59	D										
200-E	299-E27-6	D	SLATE	SLATE						Y		
200-E	299-E27-60	D				Field Rad				Y		
200-E	299-E27-61	D										
200-E	299-E27-62	D										
200-E	299-E27-63	D				Field Rad						
200-E	299-E27-64	D										
200-E	299-E27-65	D	SLATE	SLATE						Y		
200-E	299-E27-66	D	SLATE	SLATE						Y		
200-E	299-E27-67	D	SLATE	SLATE						Y		
200-E	299-E27-68	D								Y		
200-E	299-E27-69	D								Y		
200-E	299-E27-7	D								Y		
200-E	299-E27-70	D	SLATE	SLATE						Y		
200-E	299-E27-71	D								Y		
200-E	299-E27-72	D	SLATE	SLATE						Y		
200-E	299-E27-73	D								Y		
200-E	299-E27-74	D	SLATE	SLATE						Y		
200-E	299-E27-75	D	SLATE	SLATE						Y		
200-E	299-E27-76		SLATE	SLATE						Y		
200-E	299-E27-77	D								Y		
200-E	299-E27-78	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E27-79	D	SLATE	SLATE						Y		
200-E	299-E27-8	D, G	SLATE		Y					Y	Last et al. 1989	
200-E	299-E27-80	D								Y		
200-E	299-E27-81	D								Y		
200-E	299-E27-82	D	SLATE	SLATE						Y		
200-E	299-E27-83	D	SLATE	SLATE						Y		
200-E	299-E27-84	D	SLATE	SLATE						Y		
200-E	299-E27-85	D	SLATE	SLATE						Y		
200-E	299-E27-86	D	SLATE	SLATE						Y		
200-E	299-E27-87	D								Y		
200-E	299-E27-88	D								Y		
200-E	299-E27-89	D								Y		
200-E	299-E27-9	D, G	SLATE							Y		
200-E	299-E27-90	D								Y		
200-E	299-E27-91	D	SLATE	SLATE						Y		
200-E	299-E27-92	D	SLATE	SLATE						Y		
200-E	299-E27-93	D	SLATE	SLATE						Y		
200-E	299-E27-94	D	SLATE	SLATE						Y		
200-E	299-E27-95	D								Y		
200-E	299-E27-96	D	SLATE	SLATE						Y		
200-E	299-E27-97	D	SLATE	SLATE						Y		
200-E	299-E27-98	D								Y		
200-E	299-E27-99	D	SLATE	SLATE						Y		
200-E	299-E28-1	D	SLATE	SLATE						Y		
200-E	299-E28-10	D										
200-E	299-E28-11	D										
200-E	299-E28-12	D										
200-E	299-E28-13	D	SLATE	SLATE						Y		
200-E	299-E28-14		SLATE	SLATE						Y		
200-E	299-E28-15	D	SLATE	SLATE						Y		
200-E	299-E28-16	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E28-17	D	SLATE	SLATE						Y		
200-E	299-E28-18	D	SLATE	SLATE						Y		
200-E	299-E28-19	D	SLATE	SLATE						Y		
200-E	299-E28-2	D	SLATE	SLATE						Y		
200-E	299-E28-20	D	SLATE	SLATE						Y		
200-E	299-E28-21	D										
200-E	299-E28-22	D	SLATE	SLATE						Y		
200-E	299-E28-23	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	
200-E	299-E28-24	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	
200-E	299-E28-25	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E28-26	D, G	SLATE	SLATE		XRF, TC, IC, TOC	%GSSC, CEC	XRD		Y	Schramke 1988; Ames and Serne 1991	
200-E	299-E28-27	D, G	SLATE	SLATE						Y		
200-E	299-E28-28	D, G		SLATE		An,Rad,VOA,TOC				Y	Barton 1990	
200-E	299-E28-3	D	SLATE	SLATE						Y		
200-E	299-E28-4	D	SLATE	SLATE						Y		
200-E	299-E28-5	D	SLATE	SLATE						Y		
200-E	299-E28-51	D										
200-E	299-E28-52	D	SLATE	SLATE						Y		
200-E	299-E28-53	D	SLATE	SLATE						Y		
200-E	299-E28-54	D	SLATE	SLATE						Y		
200-E	299-E28-55	D	SLATE	SLATE						Y		
200-E	299-E28-56	D	SLATE	SLATE						Y		
200-E	299-E28-57	D	SLATE	SLATE						Y		
200-E	299-E28-58	D	SLATE	SLATE						Y		
200-E	299-E28-59	D	SLATE	SLATE						Y		
200-E	299-E28-6	D	SLATE	SLATE						Y		
200-E	299-E28-60	D	SLATE	SLATE						Y		
200-E	299-E28-61	D	SLATE	SLATE						Y		
200-E	299-E28-62	D										
200-E	299-E28-63	D										
200-E	299-E28-64	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E28-65	D	SLATE	SLATE						Y		
200-E	299-E28-66	D	SLATE	SLATE						Y		
200-E	299-E28-69	D				Field Rad						
200-E	299-E28-7	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	
200-E	299-E28-70	D				Field Rad						
200-E	299-E28-71	D				Field Rad						
200-E	299-E28-73	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	
200-E	299-E28-74	D	SLATE	SLATE		Lab Rad				Y	Smith 1980	
200-E	299-E28-75	D				Field Rad				Y		
200-E	299-E28-76	D				Field Rad				Y		
200-E	299-E28-77	D								Y		Backfilled
200-E	299-E28-78	D								Y		Backfilled
200-E	299-E28-8	D	SLATE	SLATE						Y		
200-E	299-E28-84	D				Field Rad				Y		
200-E	299-E28-85	D				Field Rad				Y		
200-E	299-E28-86	D				Field Rad				Y		
200-E	299-E28-87	D				Field Rad				Y		
200-E	299-E28-88	D				Field Rad				Y		
200-E	299-E28-89	D				Field Rad				Y		
200-E	299-E28-9	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E28-90	D, G				Field Rad, Lab Rad				Y	PNNL files	
200-E	299-E28-91	D				Field Rad				Y		
200-E	299-E28-93	D								Y		
200-E	299-E29-1	D										
200-E	299-E29-2	D, G	SLATE							Y		
200-E	299-E29-3	D, G	SLATE							Y		
200-E	299-E29-4	D, G	SLATE							Y		
200-E	299-E29-5	D, G	SLATE	SLATE	Y	An, Rad, TOC, VOA				Y	Goodwin and Bjornstad 1990; Barton 1990	
200-E	299-E32-10	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-E	299-E32-4	D, G	Y								see R. Khaleel or G. Freeman for sieve data	
200-E	299-E32-6	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E32-7	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E32-8	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E32-9	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E33-10	D				Field Rad				Y		
200-E	299-E33-100	D								Y		
200-E	299-E33-101	D				Field Rad						
200-E	299-E33-102	D				Field Rad						
200-E	299-E33-103	D				Field Rad						
200-E	299-E33-104	D				Field Rad						
200-E	299-E33-105	D				Field Rad						
200-E	299-E33-106	D				Field Rad						
200-E	299-E33-107	D				Field Rad						
200-E	299-E33-108	D				Field Rad				Y		
200-E	299-E33-109	D				Field Rad						
200-E	299-E33-11	D	SLATE	SLATE						Y		
200-E	299-E33-110	D				Field Rad						
200-E	299-E33-111	D				Field Rad						
200-E	299-E33-112	D				Field Rad						
200-E	299-E33-113	D				Field Rad						
200-E	299-E33-114	D				Field Rad						
200-E	299-E33-115	D				Field Rad						
200-E	299-E33-116	D				Field Rad						
200-E	299-E33-117	D				Field Rad						
200-E	299-E33-118	D				Field Rad						
200-E	299-E33-119	D				Field Rad						
200-E	299-E33-12	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E33-120	D				Field Rad						
200-E	299-E33-121	D				Field Rad						

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-122	D				Field Rad						
200-E	299-E33-123	D				Field Rad						
200-E	299-E33-124	D				Field Rad						
200-E	299-E33-125	D				Field Rad						
200-E	299-E33-126	D				Field Rad						
200-E	299-E33-127	D				Field Rad						
200-E	299-E33-128	D				Field Rad						
200-E	299-E33-129	D										
200-E	299-E33-13	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E33-130	D										
200-E	299-E33-131	D										
200-E	299-E33-132	D				Field Rad						
200-E	299-E33-133	D										
200-E	299-E33-134	D										
200-E	299-E33-135	D										
200-E	299-E33-136	D				Field Rad						
200-E	299-E33-137	D				Field Rad						
200-E	299-E33-138	D				Field Rad						
200-E	299-E33-139	D				Field Rad						
200-E	299-E33-14	D	SLATE	SLATE						Y		
200-E	299-E33-140	D				Field Rad						
200-E	299-E33-141	D				Field Rad						
200-E	299-E33-142	D				Field Rad						
200-E	299-E33-143	D										
200-E	299-E33-144	D										
200-E	299-E33-145	D										
200-E	299-E33-146	D				Field Rad						
200-E	299-E33-147	D										
200-E	299-E33-148	D	SLATE	SLATE						Y		
200-E	299-E33-149	D										
200-E	299-E33-15	D	SLATE	SLATE						Y		
200-E	299-E33-150	D	SLATE	SLATE						Y		
200-E	299-E33-151	D	SLATE	SLATE						Y		
200-E	299-E33-152	D								Y		
200-E	299-E33-153	D	SLATE	SLATE						Y		
200-E	299-E33-154	D	SLATE	SLATE						Y		
200-E	299-E33-155	D	SLATE	SLATE						Y		
200-E	299-E33-156	D								Y		
200-E	299-E33-157	D								Y		
200-E	299-E33-158	D								Y		
200-E	299-E33-159	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-16	D	SLATE	SLATE						Y		
200-E	299-E33-160	D	SLATE	SLATE						Y		
200-E	299-E33-161	D	SLATE	SLATE								
200-E	299-E33-162	D								Y		
200-E	299-E33-163	D	SLATE	SLATE						Y		
200-E	299-E33-164	D	SLATE	SLATE						Y		
200-E	299-E33-165	D	SLATE	SLATE						Y		
200-E	299-E33-166	D								Y		
200-E	299-E33-167	D										
200-E	299-E33-168	D										
200-E	299-E33-169	D										
200-E	299-E33-17	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E33-170	D										
200-E	299-E33-171	D										
200-E	299-E33-172	D										
200-E	299-E33-173	D										
200-E	299-E33-174	D										
200-E	299-E33-175	D										
200-E	299-E33-176	D	SLATE	SLATE						Y		
200-E	299-E33-177	D	SLATE	SLATE						Y		
200-E	299-E33-178	D	SLATE	SLATE						Y		
200-E	299-E33-179	D	SLATE	SLATE						Y		
200-E	299-E33-18	D	SLATE	SLATE						Y		
200-E	299-E33-180	D	SLATE	SLATE						Y		
200-E	299-E33-181	D								Y		
200-E	299-E33-182	D	SLATE	SLATE						Y		
200-E	299-E33-183	D								Y		
200-E	299-E33-184	D	SLATE	SLATE						Y		
200-E	299-E33-185	D	SLATE	SLATE						Y		
200-E	299-E33-186	D	SLATE	SLATE						Y		
200-E	299-E33-187	D								Y		
200-E	299-E33-188	D								Y		
200-E	299-E33-189	D	SLATE	SLATE						Y		
200-E	299-E33-19	D	SLATE	SLATE						Y		
200-E	299-E33-190	D	SLATE	SLATE						Y		
200-E	299-E33-191	D	SLATE	SLATE						Y		
200-E	299-E33-192	D	SLATE	SLATE								
200-E	299-E33-193	D	SLATE	SLATE						Y		
200-E	299-E33-194	D								Y		
200-E	299-E33-195	D	SLATE	SLATE						Y		
200-E	299-E33-196	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-197	D								Y		
200-E	299-E33-198	D								Y		
200-E	299-E33-199	D								Y		
200-E	299-E33-1A	D	SLATE	SLATE		Lab Rad				Y	Haney 1967	
200-E	299-E33-1B	D				Field Rad				Y		
200-E	299-E33-2	D	SLATE	SLATE						Y		
200-E	299-E33-20	D	SLATE	SLATE						Y		
200-E	299-E33-200	D								Y		
200-E	299-E33-201	D	SLATE	SLATE				XRD, EM		Y	Ames 1976	
200-E	299-E33-202	D	SLATE	SLATE						Y		
200-E	299-E33-203	D	SLATE	SLATE						Y		
200-E	299-E33-204	D	SLATE	SLATE				XRD, EM		Y	Ames 1976	
200-E	299-E33-206	D								Y		
200-E	299-E33-207	D								Y		
200-E	299-E33-208	D	SLATE	SLATE						Y		
200-E	299-E33-209	D	SLATE	SLATE						Y		
200-E	299-E33-21	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-210	D				Field Rad						
200-E	299-E33-211	D										
200-E	299-E33-212	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-213	D								Y		
200-E	299-E33-214	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-215	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-216	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-217	D	SLATE	SLATE						Y		
200-E	299-E33-218	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-219	D	SLATE	SLATE						Y		
200-E	299-E33-22	D	SLATE	SLATE		Field Rad; Sorption	CEC			Y	Routson et al. 1981; Delegard and Barney 1983	
200-E	299-E33-220	D	SLATE	SLATE						Y		
200-E	299-E33-221	D	SLATE	SLATE						Y		
200-E	299-E33-222	D	SLATE	SLATE						Y		
200-E	299-E33-223	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-224	D	SLATE	SLATE						Y		
200-E	299-E33-225	D	SLATE	SLATE						Y		
200-E	299-E33-226	D	SLATE	SLATE						Y		
200-E	299-E33-227	D	SLATE	SLATE						Y		
200-E	299-E33-228	D	SLATE	SLATE						Y		
200-E	299-E33-229	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-23	D				Field Rad						
200-E	299-E33-230	D								Y		
200-E	299-E33-231	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-232	D	SLATE	SLATE						Y		
200-E	299-E33-233	D	SLATE	SLATE						Y		
200-E	299-E33-234	D	SLATE	SLATE						Y		
200-E	299-E33-235	D	SLATE	SLATE						Y		
200-E	299-E33-236	D								Y		
200-E	299-E33-237	D	SLATE	SLATE		Field Rad				Y		
200-E	299-E33-238	D										
200-E	299-E33-239	D								Y		
200-E	299-E33-24	D										
200-E	299-E33-240	D	SLATE	SLATE						Y		
200-E	299-E33-241	D	SLATE	SLATE						Y		
200-E	299-E33-242	D	SLATE	SLATE						Y		
200-E	299-E33-243	D	SLATE	SLATE						Y		
200-E	299-E33-244	D	SLATE	SLATE						Y		
200-E	299-E33-245	D	SLATE	SLATE						Y		
200-E	299-E33-246	D	SLATE	SLATE						Y		
200-E	299-E33-247	D										
200-E	299-E33-248	D	SLATE	SLATE						Y		
200-E	299-E33-249	D	SLATE	SLATE						Y		
200-E	299-E33-25	D	SLATE	SLATE						Y		
200-E	299-E33-250	D	SLATE	SLATE						Y		
200-E	299-E33-251	D	SLATE	SLATE						Y		
200-E	299-E33-252	D	SLATE	SLATE						Y		
200-E	299-E33-253	D	SLATE	SLATE						Y		
200-E	299-E33-254	D	SLATE	SLATE						Y		
200-E	299-E33-255	D	SLATE	SLATE						Y		
200-E	299-E33-256	D	SLATE	SLATE						Y		
200-E	299-E33-257	D	SLATE	SLATE						Y		
200-E	299-E33-258	D	SLATE	SLATE						Y		
200-E	299-E33-259	D								Y		
200-E	299-E33-26	D	SLATE	SLATE						Y		
200-E	299-E33-260	D				Field Rad				Y		
200-E	299-E33-261	D								Y		
200-E	299-E33-262	D								Y		
200-E	299-E33-263	D								Y		
200-E	299-E33-264	D								Y		
200-E	299-E33-27	D				Field Rad						
200-E	299-E33-273	D				Field Rad						
200-E	299-E33-274	D								Y		
200-E	299-E33-277	D								Y		
200-E	299-E33-28	D, G	SLATE							Y		
200-E	299-E33-286	D				Field Rad				Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-287	D				Field Rad				Y		
200-E	299-E33-288	D				Field Rad				Y		
200-E	299-E33-289	D				Field Rad				Y		
200-E	299-E33-29	D, G	SLATE							Y		
200-E	299-E33-290	D				Field Rad				Y		
200-E	299-E33-291	D										
200-E	299-E33-292	D										
200-E	299-E33-293	D										
200-E	299-E33-294	D										
200-E	299-E33-295	D										
200-E	299-E33-296		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
200-E	299-E33-2A					Lab Rad					Haney 1967	
200-E	299-E33-3	D										
200-E	299-E33-30	D, G	SLATE			TC, IC, TOC	%GSSC, XRF			Y	Schramke 1988; Ames and Serne 1991	
200-E	299-E33-304		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
200-E	299-E33-307		Y	Y	Y		SpG, Por, Bden				Hoffman 1992	
200-E	299-E33-31	G	SLATE		Y	Rad,TOC,An				Y	Pearson 1990	
200-E	299-E33-32	G	SLATE		Y	Field Rad				Y	Pearson 1990	
200-E	299-E33-33	G	SLATE		Y	Field Rad, PID				Y	Pearson 1990	
200-E	299-E33-333	G	Y	Y	Y	Field Rad, Metals, An, VOA, SVOA, Lab Rad,	Bden, SpG, CEC, Pden				Rohay and Weekes 1998	
200-E	299-E33-334	G			Y					Y	Horton files	
200-E	299-E33-335	G							Paleomag	Y	Horton 2000a; Bjornstad et al. 2001	
200-E	299-E33-34	G			Y	An, Rad, TOC, VOA				Y	Barton 1990	
200-E	299-E33-35	G			Y	An,Rad,TOC,VOA				Y	Barton 1990	
200-E	299-E33-36	G								Y		
200-E	299-E33-37	G								Y		
200-E	299-E33-38	G	Y	Y	Y		SpG, Bden, Por			Y	Hoffman 1992	
200-E	299-E33-39	G	Y	Y	Y		SpG, Bden, Por			Y	Hoffman 1992	
200-E	299-E33-3A					Lab Rad					Haney 1967	
200-E	299-E33-4	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E33-40	G	Y	Y	Y		SpG, Bden, Por			Y	Hoffman 1992	
200-E	299-E33-41	G								Y		
200-E	299-E33-42	G	Y	Y	Y	Field Rad				Y	Caggiano 1993	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-43	G	Y	Y	Y	Field Rad				Y	Caggiano 1993	
200-E	299-E33-44	G	Y		Y	1:1	CEC, Cond			Y	Horton and Narbutovskih 1999	
200-E	299-E33-45	G										Backfilled
200-E	299-E33-4A					Lab Rad					Haney 1967	
200-E	299-E33-5	D	SLATE	SLATE						Y		
200-E	299-E33-51	G										
200-E	299-E33-52	D										
200-E	299-E33-53	D										
200-E	299-E33-54	D										
200-E	299-E33-55	D										
200-E	299-E33-56	D										
200-E	299-E33-57	D										
200-E	299-E33-58	D	SLATE	SLATE						Y		1 ft Sieve/CaCO3 interval 20-50 ft
200-E	299-E33-59	D	SLATE	SLATE						Y		1 ft Sieve/CaCO3 interval 20-50 ft
200-E	299-E33-6	D	SLATE	SLATE						Y		
200-E	299-E33-60	D	SLATE	SLATE						Y		1 ft Sieve/$CaCO_3$ interval 20-50 ft
200-E	299-E33-61	D	SLATE	SLATE						Y		
200-E	299-E33-62	D	SLATE	SLATE						Y		
200-E	299-E33-63	D	SLATE	SLATE						Y		
200-E	299-E33-64	D	SLATE	SLATE						Y		
200-E	299-E33-65	D	SLATE	SLATE						Y		
200-E	299-E33-66	D	SLATE	SLATE						Y		
200-E	299-E33-67	D	SLATE	SLATE						Y		
200-E	299-E33-68	D	SLATE	SLATE						Y		
200-E	299-E33-69	D	SLATE	SLATE						Y		
200-E	299-E33-7	D	SLATE	SLATE						Y		
200-E	299-E33-70	D	SLATE	SLATE						Y		
200-E	299-E33-71	D	SLATE	SLATE						Y		
200-E	299-E33-72	D	SLATE	SLATE						Y		
200-E	299-E33-73	D	SLATE	SLATE						Y		
200-E	299-E33-74	D	SLATE	SLATE								
200-E	299-E33-75	D	SLATE	SLATE						Y		
200-E	299-E33-76	D	SLATE	SLATE						Y		
200-E	299-E33-77	D	SLATE	SLATE						Y		
200-E	299-E33-78	D	SLATE	SLATE						Y		
200-E	299-E33-79	D										
200-E	299-E33-8	D	SLATE	SLATE						Y		
200-E	299-E33-80	D										
200-E	299-E33-81	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E33-82	D										
200-E	299-E33-83	D								Y		
200-E	299-E33-84	D	SLATE	SLATE						Y		
200-E	299-E33-85	D	SLATE	SLATE						Y		
200-E	299-E33-86	D	SLATE	SLATE								
200-E	299-E33-87	D	SLATE	SLATE						Y		
200-E	299-E33-88	D	SLATE	SLATE						Y		
200-E	299-E33-89	D	SLATE	SLATE						Y		
200-E	299-E33-9	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-E	299-E33-90	D				Field Rad						
200-E	299-E33-91	D				Field Rad						
200-E	299-E33-92	D				Field Rad						
200-E	299-E33-93	D				Field Rad						
200-E	299-E33-94	D				Field Rad				Y		
200-E	299-E33-95	D	SLATE	SLATE						Y		
200-E	299-E33-96	D								Y		
200-E	299-E33-97	D	SLATE	SLATE						Y		
200-E	299-E33-98	D								Y		
200-E	299-E33-99	D	SLATE	SLATE						Y		
200-E	299-E34-1	D	SLATE	SLATE						Y		
200-E	299-E34-10	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E34-11	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-E	299-E34-12	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-E	299-E34-2	D, G	SLATE			XRF,TC, IC, TOC	%GSSC, CEC	XRD		Y	PNNL files; Last et al. 1989; Schramke 1988; Ames and Serne 1991	
200-E	299-E34-3	G				TC, IC, TOC	%GSSC, CEC			Y	Schramke 1988; Ames and Serne 1991	
200-E	299-E34-4	D, G	SLATE							Y		
200-E	299-E34-5	D, G	SLATE							Y		
200-E	299-E34-51A	D										
200-E	299-E34-51B	D										
200-E	299-E34-51C	D										
200-E	299-E34-51D	D										
200-E	299-E34-51E	D										
200-E	299-E34-6	D, G	SLATE		Y					Y	Last et al. 1989	
200-E	299-E34-7	G				An, Rad, TOC, VOA				Y	Goodwin and Bornstad 1990	
200-E	299-E34-8	G								Y		
200-E	299-E34-9	G		Y	Y	Field Rad				Y	Mercer 1993b	
200-E	299-E35-1	G	SLATE	SLATE	Y	An, Rad, TOC, VOA				Y	Goodwin and Bornstad 1990	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-E	299-E35-2	G	SLATE	SLATE	Y	Field pH, XRF	SpG, %GSSC	XRD		Y	Doremus and Pearson 1990; Sweeney 1993b; Sweeney 1994	
200-W	299-W10-1	D	SLATE	SLATE		Rad Info.				Y	PNNL files	
200-W	299-W10-10	D	SLATE							Y		
200-W	299-W10-101	D	SLATE	SLATE						Y		
200-W	299-W10-102	D				Field Rad				Y		
200-W	299-W10-103	D				Field Rad						
200-W	299-W10-104	D	SLATE	SLATE						Y		
200-W	299-W10-105	D	SLATE	SLATE						Y		
200-W	299-W10-106	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-107	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-108	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-109	D	SLATE			Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-11	D	SLATE							Y		
200-W	299-W10-110	D				Field Rad, Lab Rad					ARH-2874	
200-W	299-W10-111	D				Field Rad, Lab Rad					ARH-2874	
200-W	299-W10-112	D	SLATE	SLATE						Y		
200-W	299-W10-113	D	SLATE	SLATE						Y		
200-W	299-W10-114	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-115	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-116	D	SLATE			Field Rad				Y		
200-W	299-W10-117	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-118	D				Field Rad, Lab Rad				Y	ARH-2874	
200-W	299-W10-119	D				Field Rad, Lab Rad					ARH-2874	
200-W	299-W10-12	D								Y		
200-W	299-W10-120	D	Y	Y						Y		
200-W	299-W10-121	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-122	D	SLATE	SLATE						Y		
200-W	299-W10-123	D	SLATE	SLATE						Y		
200-W	299-W10-124	D	SLATE	SLATE						Y		
200-W	299-W10-125	D	SLATE	SLATE						Y		
200-W	299-W10-126	D	SLATE	SLATE						Y		
200-W	299-W10-127	D	SLATE	SLATE						Y		
200-W	299-W10-128	D	SLATE	SLATE						Y		
200-W	299-W10-129	D	SLATE	SLATE						Y		
200-W	299-W10-13	G			Y	TC, IC, TOC, XRF	CEC, %GSSC	XRD			Bjornstad 1990; Schramke 1988; Ames and Serne 1991	
200-W	299-W10-130	D	SLATE	SLATE						Y		
200-W	299-W10-133	D	SLATE	SLATE						Y		
200-W	299-W10-134	D	SLATE	SLATE						Y		
200-W	299-W10-135	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W10-136	D	SLATE	SLATE						Y		
200-W	299-W10-137	D	SLATE	SLATE								
200-W	299-W10-138	D	SLATE	SLATE						Y		
200-W	299-W10-139	D	SLATE	SLATE						Y		
200-W	299-W10-14	G			Y	TC, IC, TOC, XRF	CEC				Bjornstad 1990; Schramke 1988; Ames and Serne 1991	
200-W	299-W10-140	D	SLATE	SLATE						Y		
200-W	299-W10-141	D	SLATE	SLATE						Y		
200-W	299-W10-142	D	SLATE	SLATE						Y		
200-W	299-W10-143	D	SLATE	SLATE						Y		
200-W	299-W10-144	D	SLATE	SLATE						Y		
200-W	299-W10-145	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-146	D								Y		
200-W	299-W10-147	D	SLATE	SLATE						Y		
200-W	299-W10-148	D	SLATE	SLATE				XRD, SEM, EM		Y	Routson et al. 1979; Ames 1976	
200-W	299-W10-149	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-15	G	Y		Y	YL				Y	Pearson 1990	
200-W	299-W10-150	D				Field Rad				Y		
200-W	299-W10-151	D								Y		
200-W	299-W10-152	D								Y		
200-W	299-W10-153	D								Y		
200-W	299-W10-154	D								Y		
200-W	299-W10-16	G	Y		Y	YL				Y	Pearson 1990	
200-W	299-W10-161	D										
200-W	299-W10-162	D	SLATE	SLATE						Y		
200-W	299-W10-164	D, G			Y	Field Rad				Y		Moisture data in geologic logs
200-W	299-W10-165	D, G			Y	Field Rad				Y		Moisture data in geologic logs
200-W	299-W10-166	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-167	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-168	D				Field Rad				Y		
200-W	299-W10-17	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W10-176	D				Field Rad				Y		
200-W	299-W10-177	D				Field Rad				Y		
200-W	299-W10-178	D				Field Rad				Y		
200-W	299-W10-179	D				Field Rad						
200-W	299-W10-18	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W10-180	D								Y		
200-W	299-W10-181	D								Y		
200-W	299-W10-182	D								Y		
200-W	299-W10-183	D								Y		
200-W	299-W10-184	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W10-185	D										
200-W	299-W10-186	D								Y		
200-W	299-W10-187	D								Y		
200-W	299-W10-188	D								Y		
200-W	299-W10-189	D				Field Rad				Y		
200-W	299-W10-19	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W10-190	D				Field Rad				Y		
200-W	299-W10-191	D				Field Rad						
200-W	299-W10-196	G	Y			Metals, Lab Rad, An, VOA, SVOA					Freeman-Pollard 1994; see R. Khaleel or G. Freeman for sieve data	
200-W	299-W10-2	D	SLATE							Y		
200-W	299-W10-20	G	Y	Y	Y		Bden, por, %GSSC			Y	Mercer 1994	
200-W	299-W10-21	G	Y	Y	Y					Y	Mercer 1994	
200-W	299-W10-22	G				Metals					Alexander et al. 1995	
200-W	299-W10-23	G				1:1, TIC				Y	Horton and Hodges 1999c	
200-W	299-W10-24	G								Y		
200-W	299-W10-26	G	Y		Y	1:1	Cond			Y	Horton and Hodges 1999a	
	299-W10-27	G							Paleomag	Y	Bjornstad files	
200-W	299-W10-3	D	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-W	299-W10-4	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W10-5	D	SLATE	SLATE						Y		
200-W	299-W10-51	D										
200-W	299-W10-52	D										
200-W	299-W10-53	D	SLATE									
200-W	299-W10-54	D										
200-W	299-W10-55	D										
200-W	299-W10-56	D, G	SLATE	SLATE						Y		
200-W	299-W10-57	D, G	SLATE	SLATE						Y		
200-W	299-W10-58	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W10-59	D, G	SLATE	SLATE						Y		
200-W	299-W10-6	As-built, Well Summary									HWIS	Abandoned?
200-W	299-W10-60	D, G	SLATE	SLATE						Y		
200-W	299-W10-61	D, G	SLATE	SLATE						Y		
200-W	299-W10-62	D, G	SLATE	SLATE						Y		
200-W	299-W10-63	D, G								Y		
200-W	299-W10-64	D, G				Field Rad				Y	PNNL files	
200-W	299-W10-65	D, G								Y		
200-W	299-W10-66	D, G	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W10-67	D, G	SLATE	SLATE						Y		
200-W	299-W10-68	D, G	SLATE	SLATE						Y		
200-W	299-W10-69	D, G	SLATE	SLATE						Y		
200-W	299-W10-7	As-built									HWIS	Abandoned?
200-W	299-W10-70	D, G	SLATE	SLATE						Y		
200-W	299-W10-71	D, G	SLATE	SLATE						Y		
200-W	299-W10-72	D, G	SLATE	SLATE						Y		
200-W	299-W10-73	D, G	SLATE	SLATE						Y		
200-W	299-W10-74	D, G	SLATE	SLATE						Y		
200-W	299-W10-75	D, G								Y		
200-W	299-W10-76	D, G	SLATE	SLATE						Y		
200-W	299-W10-8	D	SLATE	SLATE						Y		
200-W	299-W10-80	D	SLATE	SLATE						Y		
200-W	299-W10-82	D								Y		
200-W	299-W10-83	D								Y		
200-W	299-W10-88	D								Y		
200-W	299-W10-89	D								Y		
200-W	299-W10-9	D	SLATE							Y		
200-W	299-W10-90	D								Y		
200-W	299-W10-91	D								Y		
200-W	299-W10-92	D								Y		
200-W	299-W10-93	D								Y		
200-W	299-W10-94	D								Y		
200-W	299-W10-95	D								Y		
200-W	299-W10-96	D								Y		
200-W	299-W10-97	D								Y		
200-W	299-W10-98	D								Y		
200-W	299-W10-99	D								Y		
200-W	299-W11-1	D, G	SLATE	SLATE						Y		
200-W	299-W11-10	D	SLATE	SLATE						Y		
200-W	299-W11-11	D	SLATE	SLATE						Y		
200-W	299-W11-12	D	SLATE	SLATE						Y		
200-W	299-W11-13	D								Y		
200-W	299-W11-14	D	SLATE	SLATE						Y		
200-W	299-W11-15	D								Y		
200-W	299-W11-16	D	SLATE	SLATE						Y		
200-W	299-W11-17	D	SLATE	SLATE						Y		
200-W	299-W11-18	D	SLATE	SLATE						Y		
200-W	299-W11-19	D	SLATE	SLATE						Y		
200-W	299-W11-2	D, G	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-W	299-W11-20	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W11-21	D	SLATE	SLATE						Y		
200-W	299-W11-23	D	SLATE	SLATE						Y		
200-W	299-W11-24	D								Y		
200-W	299-W11-26	D	SLATE	SLATE	Y		Bden, %GSSC	SEM, XRD	Paleomag	Y	Slate 2000 (PPl only, includes description); Routson et al. 1979; Bjornstad 1984	
200-W	299-W11-27	G	Y	Y	Y	Field Rad				Y	Caggiano 1993	
200-W	299-W11-28	G	Y	Y	Y	Field Rad				Y	Caggiano 1993	
200-W	299-W11-29	G				VOA					Weekes and Glaman 1995; Newcomer et al. 1995	
200-W	299-W11-3	D, G	SLATE	SLATE						Y		
200-W	299-W11-30	G				TC, TOC, IC, VOA					Weekes and Glaman 1995; Newcomer et al. 1995	
200-W	299-W11-31	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W11-32	G	Y			TC, TOC, IC, VOA, N, P, TFe/Fe2, ASi02	%GSSC, Pden, Bden, Por	XRD			Weekes and Glaman 1995; Newcomer et al. 1995	
200-W	299-W11-33	G	Y				Pden, Cond				Weekes and Glaman 1995	
200-W	299-W11-34	G	Y				Pden, Cond				Weekes and Glaman 1995	
200-W	299-W11-35	G	Y				Pden, Cond				Weekes and Glaman 1995	
200-W	299-W11-37	Well Summary				Metals					Sweeney et al 1995; HWIS	
200-W	299-W11-39	G							Paleomag	Y	Bjornstad files	
200-W	299-W11-4	D	SLATE	SLATE						Y		
200-W	299-W11-5	D	SLATE	SLATE						Y		
200-W	299-W11-51	D										
200-W	299-W11-52	D										
200-W	299-W11-53	D										
200-W	299-W11-54	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-55	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-56	D, G	SLATE	SLATE		Field Rad				Y	PNNL fiIes	
200-W	299-W11-57	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-58	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-59	D, G				Field Rad					PNNL files	
200-W	299-W11-6	D	SLATE	SLATE						Y		
200-W	299-W11-60	D, G	SLATE	SLATE						Y	PNNL files	
200-W	299-W11-61	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-62	D, G	SLATE	SLATE		Field Rad				Y	PNNL files	
200-W	299-W11-63	D, G	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W11-64	D, G	SLATE	SLATE						Y		
200-W	299-W11-65	D, G	SLATE	SLATE						Y		
200-W	299-W11-66	D	SLATE	SLATE						Y		
200-W	299-W11-67	D	SLATE	SLATE						Y		
200-W	299-W11-68	D	SLATE	SLATE						Y		
200-W	299-W11-69	D								Y		
200-W	299-W11-7	D	SLATE	SLATE						Y		
200-W	299-W11-70	D	SLATE	SLATE						Y		
200-W	299-W11-79	D				Field Rad				Y		
200-W	299-W11-8	D	SLATE	SLATE						Y		
200-W	299-W11-80	D								Y		
200-W	299-W11-81	D				Field Rad				Y		
200-W	299-W11-82	D				Field Rad				Y		
200-W	299-W11-9	D	SLATE	SLATE						Y		
200-W	299-W14-1	D	SLATE	SLATE						Y		
200-W	299-W14-10	D								Y		
200-W	299-W14-12	G	Y	Y	Y					Y	Caggiano 1993	
200-W	299-W14-13	G			Y	1:1	Cond			Y	Horton and Hodges 1999a	
200-W	299-W14-14	G								Y		
200-W	299-W14-17	D		Y	Y	StIso	Bden, %GSSC				Webster 1977; Slate 2000 (PPl only, includes descriptions)	
200-W	299-W14-2	D	SLATE	SLATE						Y		
200-W	299-W14-3	D										
200-W	299-W14-4	D										
200-W	299-W14-5	D		SLATE						Y		
200-W	299-W14-51	D								Y		
200-W	299-W14-53	D	SLATE	SLATE						Y		
200-W	299-W14-54	D								Y		
200-W	299-W14-55	D								Y		
200-W	299-W14-56	D										
200-W	299-W14-57	D										
200-W	299-W14-58	D										
200-W	299-W14-59	D										
200-W	299-W14-6	D	SLATE	SLATE						Y		
200-W	299-W14-60	D										
200-W	299-W14-61	D										
200-W	299-W14-62	D				Field Rad				Y		
200-W	299-W14-63	D	SLATE	SLATE						Y		
200-W	299-W14-7	D, G	SLATE	SLATE					Date, Paleomag	Y	Baker et al. 1991; Bjornstad 1984	Open Hole 105-531', Filled w/Drilling Mud,
200-W	299-W14-8	D, G	SLATE	SLATE						Y	Webster 1977	
200-W	299-W14-8A	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W15-1	D, G	SLATE	SLATE						Y		
200-W	299-W15-10	D	SLATE							Y		
200-W	299-W15-100	D										
200-W	299-W15-101	D										
200-W	299-W15-102	D								Y		
200-W	299-W15-109	D										
200-W	299-W15-11	D	SLATE	SLATE						Y		
200-W	299-W15-110	D										
200-W	299-W15-111	D										
200-W	299-W15-112	D										
200-W	299-W15-113	D										
200-W	299-W15-114	D										
200-W	299-W15-115	D										
200-W	299-W15-116	D										
200-W	299-W15-117	D										
200-W	299-W15-118	D										
200-W	299-W15-119	D										
200-W	299-W15-12	D	SLATE	SLATE						Y		
200-W	299-W15-120	D										
200-W	299-W15-121	D										
200-W	299-W15-122	D										
200-W	299-W15-123	D				Field Rad						
200-W	299-W15-124	D										
200-W	299-W15-125	D										
200-W	299-W15-126	D										
200-W	299-W15-127	D	SLATE	SLATE						Y		
200-W	299-W15-128	D	SLATE	SLATE						Y		
200-W	299-W15-129	D, G	SLATE	SLATE						Y		
200-W	299-W15-13	D	SLATE	SLATE						Y		
200-W	299-W15-130	D	SLATE	SLATE						Y		
200-W	299-W15-131	D	SLATE	SLATE						Y		
200-W	299-W15-132	D	SLATE	SLATE						Y		
200-W	299-W15-133	D	SLATE	SLATE						Y		
200-W	299-W15-134	D	SLATE	SLATE						Y		
200-W	299-W15-135	D								Y		
200-W	299-W15-136	D	SLATE	SLATE						Y		
200-W	299-W15-137	D	SLATE	SLATE						Y		
200-W	299-W15-138	D										
200-W	299-W15-139	D										
200-W	299-W15-14	D	SLATE	SLATE	Y	StIso	Bden, %GSSC		Date		Slate 2000 (PPl only, includes description); Baker et al. 1991	
200-W	299-W15-140	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W15-141	D										
200-W	299-W15-142	D										
200-W	299-W15-143	D										
200-W	299-W15-144	D										
200-W	299-W15-145	D										
200-W	299-W15-146	D										
200-W	299-W15-147	D										
200-W	299-W15-148	D										
200-W	299-W15-149	D										
200-W	299-W15-15	D, G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W15-153	D								Y		
200-W	299-W15-154	D								Y		
200-W	299-W15-155	D	SLATE							Y		
200-W	299-W15-156	D								Y		
200-W	299-W15-158	D								Y		
200-W	299-W15-159	D	SLATE							Y		
200-W	299-W15-16	D, G	SLATE	SLATE	Y	TC, IC, TOC, XRF	CEC, %GSSC	XRD		Y	Last et al. 1989; Schramke 1988; Bjornstad et al. no date; Ames and Serne 1991	
200-W	299-W15-160	D	SLATE							Y		
200-W	299-W15-161	D	SLATE							Y		
200-W	299-W15-162	D	SLATE							Y		
200-W	299-W15-163	D	SLATE							Y		
200-W	299-W15-164	D	SLATE							Y		
200-W	299-W15-165	D	SLATE									
200-W	299-W15-166	D	SLATE	SLATE						Y		
200-W	299-W15-167	D	SLATE							Y		
200-W	299-W15-168	D	SLATE	SLATE						Y		
200-W	299-W15-169	D	SLATE	SLATE						Y		
200-W	299-W15-17	D, G	SLATE	SLATE		TC, IC, TOC, XRF	CEC	XRD		Y	Last et al. 1989; Schramke 1988; Bjornstad et al. no date; Ames and Serne 1991	
200-W	299-W15-170	D	SLATE	SLATE						Y		
200-W	299-W15-171	D	SLATE	SLATE						Y		
200-W	299-W15-172	D	SLATE	SLATE						Y		
200-W	299-W15-173	D	SLATE	SLATE						Y		
200-W	299-W15-174	D	SLATE							Y		
200-W	299-W15-175	D	SLATE	SLATE						Y		
200-W	299-W15-176	D	SLATE	SLATE						Y		
200-W	299-W15-177	D	SLATE	SLATE						Y		
200-W	299-W15-178	D	SLATE							Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W15-179	D	SLATE	SLATE						Y		
200-W	299-W15-18	D, G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W15-180	D	SLATE	SLATE						Y		
200-W	299-W15-181	D	SLATE	SLATE						Y		
200-W	299-W15-182	D	SLATE	SLATE						Y		
200-W	299-W15-183		SLATE	SLATE						Y		
200-W	299-W15-184	D	SLATE	SLATE						Y		
200-W	299-W15-185	D	SLATE	SLATE						Y		
200-W	299-W15-186	D	SLATE	SLATE						Y		
200-W	299-W15-187	D								Y		
200-W	299-W15-188	D								Y		
200-W	299-W15-189	D								Y		
200-W	299-W15-19	G			Y	Y				Y	Goodwin 1990	
200-W	299-W15-190	D								Y		
200-W	299-W15-191	D										
200-W	299-W15-192	D										
200-W	299-W15-193	D										
200-W	299-W15-194	D										
200-W	299-W15-195	D										
200-W	299-W15-196	D								Y		
200-W	299-W15-197	D								Y		
200-W	299-W15-198	D	SLATE	SLATE						Y		
200-W	299-W15-199	D	SLATE	SLATE						Y		
200-W	299-W15-2	D	SLATE	SLATE						Y		
200-W	299-W15-20	G			Y	Y				Y	Goodwin 1990	
200-W	299-W15-200	D	SLATE	SLATE						Y		
200-W	299-W15-201	D	SLATE	SLATE						Y		
200-W	299-W15-202	D	SLATE	SLATE						Y		
200-W	299-W15-203	D			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W15-204	D			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W15-205	D				Pu, Am				Y	Last et al. 1994	
200-W	299-W15-206	D				Pu, Am				Y	Last et al. 1994	
200-W	299-W15-207	D										
200-W	299-W15-208	D								Y		
200-W	299-W15-209	D				Field Rad				Y		
200-W	299-W15-210	D				Field Rad				Y		
200-W	299-W15-211	D				Field Rad				Y		
200-W	299-W15-212	D								Y		
200-W	299-W15-213	D										
200-W	299-W15-216	G	Y		Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993; see R. Khaleel or G. Freemen for sieve data	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W15-217	G	Y		Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993; see R. Khaleel or G. Freemen for sieve data	
200-W	299-W15-218	G	Y	Y	Y	VOA, SVOA, Metals, An, Rad					Rohay et al. 1994; Rohay et al. 1993; see R. Khaleel or G. Freeman for sieve data	
200-W	299-W15-219	G	Y	Y	Y	VOA, SVOA, Metals, An, Rad					Rohay et al. 1994; Rohay et al. 1993; see R. Khaleel or G. Freeman for sieve data	
200-W	299-W15-22	G	Y	SLATE	Y					Y	Caggiano 1992	
200-W	299-W15-220	G	Y			VOA					Rohay et al. 1994; see R. Khaleel or G. Freeman for sieve data	
200-W	299-W15-223	G	Y	Y	Y	VOA, SVOA, An, CN, Hg, Pb, Metals	Bden				Rohay et al. 1994; Rohay 1995	
200-W	299-W15-23	G			Y					Y	Barton 1990	
200-W	299-W15-24	G								Y	Barton 1990	
200-W	299-W15-25	G	Y	Y	Y	VOA					Weekes and Glaman 1995	
200-W	299-W15-252		Y								Rohay et al. 1993	
200-W	299-W15-29	G	Y								CH2M HILL files	
200-W	299-W15-3	D	SLATE							Y		
200-W	299-W15-30	G									CH2M HILL files	
200-W	299-W15-31A	G									CH2M HILL files	
200-W	299-W15-32	G									CH2M HILL files	
200-W	299-W15-33	G									CH2M HILL files	
200-W	299-W15-34	G									CH2M HILL files	
200-W	299-W15-35	G									CH2M HILL files	
200-W	299-W15-36	G									CH2M HILL files	
200-W	299-W15-37	G									CH2M HILL files	
200-W	299-W15-38	G									CH2M HILL files	
200-W	299-W15-39	G									CH2M HILL files	
200-W	299-W15-4	D				Field Rad						
200-W	299-W15-40	G			Y	1:1	Cond, CEC			Y	Horton and Hodges 1999a	
200-W	299-W15-41	G								Y		
200-W	299-W15-5	D	SLATE	SLATE								
200-W	299-W15-51	D										
200-W	299-W15-52	D, G	SLATE	SLATE						Y		
200-W	299-W15-53	D, G	SLATE	SLATE						Y		
200-W	299-W15-54	D, G	SLATE	SLATE						Y		
200-W	299-W15-55	D, G								Y		
200-W	299-W15-56	D, G	SLATE	SLATE						Y		
200-W	299-W15-57	D, G	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W15-58	D, G										
200-W	299-W15-59	D, G	SLATE	SLATE						Y		
200-W	299-W15-5O	D										Piezometer
200-W	299-W15-5P	D										Piezometer
200-W	299-W15-5Q	D										Piezometer
200-W	299-W15-5R	D										Piezometer
200-W	299-W15-5S	D										Piezometer
200-W	299-W15-6	D	SLATE	SLATE						Y		
200-W	299-W15-60	D, G								Y		
200-W	299-W15-61	D, G								Y		
200-W	299-W15-62	D								Y		
200-W	299-W15-63									Y		
200-W	299-W15-64	D								Y		
200-W	299-W15-66	D								Y		
200-W	299-W15-67	D, G	SLATE	SLATE						Y		
200-W	299-W15-68	D, G	SLATE	SLATE						Y		
200-W	299-W15-69	D, G	SLATE	SLATE						Y		
200-W	299-W15-7	D	SLATE	SLATE						Y		
200-W	299-W15-70	D, G	SLATE	SLATE						Y		
200-W	299-W15-71	D, G	SLATE	SLATE						Y		
200-W	299-W15-72	D, G	SLATE	SLATE						Y		
200-W	299-W15-73	D, G	SLATE	SLATE						Y		
200-W	299-W15-74	D, G	SLATE	SLATE						Y		
200-W	299-W15-75	D, G	SLATE	SLATE						Y		
200-W	299-W15-76	D, G	SLATE							Y		
200-W	299-W15-77	D	SLATE							Y		
200-W	299-W15-78	D								Y		
200-W	299-W15-79	D	SLATE							Y		
200-W	299-W15-8	D	SLATE	SLATE						Y		
200-W	299-W15-80	D								Y		
200-W	299-W15-81	D								Y		
200-W	299-W15-82	D	SLATE	SLATE						Y		
200-W	299-W15-84	D	SLATE	SLATE						Y		
200-W	299-W15-85	D										
200-W	299-W15-86	D	SLATE	SLATE						Y		
200-W	299-W15-9	D										
200-W	299-W15-94	D	SLATE	SLATE						Y		
200-W	299-W15-95	D	SLATE	SLATE						Y		
200-W	299-W15-96	D	Y								Rohay et al. 1993	
200-W	299-W15-97	D										
200-W	299-W15-98	D										
200-W	299-W15-99	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-1	D	SLATE	SLATE						Y		
200-W	299-W18-10	D	SLATE	SLATE						Y		
200-W	299-W18-100	D	SLATE	SLATE						Y		
200-W	299-W18-101	D								Y		
200-W	299-W18-102	D	SLATE	SLATE						Y		
200-W	299-W18-103	D	SLATE	SLATE						Y		
200-W	299-W18-104	D	SLATE	SLATE						Y		
200-W	299-W18-105	D	SLATE	SLATE						Y		
200-W	299-W18-107	D								Y		
200-W	299-W18-109	D	SLATE	SLATE						Y		
200-W	299-W18-11	D								Y		
200-W	299-W18-110	D	SLATE	SLATE						Y		
200-W	299-W18-111	D										
200-W	299-W18-113	D	SLATE	SLATE		Field Rad in logs				Y	PNNL files	
200-W	299-W18-114	D								Y		
200-W	299-W18-115	D	SLATE	SLATE						Y		
200-W	299-W18-116	D				Field Rad in logs				Y	PNNL files	
200-W	299-W18-117	D	SLATE	SLATE						Y		
200-W	299-W18-118	D								Y		
200-W	299-W18-119	D	SLATE	SLATE						Y		
200-W	299-W18-12									Y		
200-W	299-W18-120	D								Y		
200-W	299-W18-121	D								Y		
200-W	299-W18-122	D								Y		
200-W	299-W18-123	D	SLATE	SLATE						Y		
200-W	299-W18-124	D	SLATE	SLATE						Y		
200-W	299-W18-124	D	SLATE	SLATE						Y		
200-W	299-W18-125	D	SLATE	SLATE						Y		
200-W	299-W18-126	D	SLATE	SLATE						Y		
200-W	299-W18-127	D	SLATE	SLATE						Y		
200-W	299-W18-128	D	SLATE	SLATE						Y		
200-W	299-W18-129	D	SLATE	SLATE						Y		
200-W	299-W18-13	D										
200-W	299-W18-130	D	SLATE	SLATE						Y		
200-W	299-W18-131	D	SLATE	SLATE						Y		
200-W	299-W18-132	D	SLATE	SLATE						Y		
200-W	299-W18-133	D	SLATE	SLATE						Y		
200-W	299-W18-134	D								Y		
200-W	299-W18-135	D	SLATE	SLATE						Y		
200-W	299-W18-137	D	SLATE	SLATE						Y		
200-W	299-W18-138	D	SLATE	SLATE								
200-W	299-W18-139	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-14	D							Paleomag		Bjornstad 1984	
200-W	299-W18-140	D								Y		
200-W	299-W18-141	D	SLATE	SLATE						Y		
200-W	299-W18-142	D	SLATE	SLATE						Y		
200-W	299-W18-143	D	SLATE	SLATE						Y		
200-W	299-W18-144	D	SLATE	SLATE						Y		
200-W	299-W18-145	D	SLATE	SLATE						Y		
200-W	299-W18-146	D								Y		
200-W	299-W18-147	D	SLATE	SLATE						Y		
200-W	299-W18-148	D	SLATE	SLATE						Y		
200-W	299-W18-149	G				Pu, Am					Price et al. 1979	
200-W	299-W18-15	D	SLATE	SLATE	Y	Cs, Pu, Am				Y	Last et al. 1994	
200-W	299-W18-150	G				Pu, Am				Y	Price et al. 1979	
200-W	299-W18-151	D										
200-W	299-W18-152	D	SLATE	SLATE		Pu, Am				Y	Kasper 1981; Kasper 1982	
200-W	299-W18-153	D	SLATE	SLATE		Pu, Am				Y	Kasper 1981; Kasper 1982	
200-W	299-W18-154	D				Pu, Am				Y	Kasper 1982	
200-W	299-W18-155	D								Y		
200-W	299-W18-156	D								Y		
200-W	299-W18-157	D	SLATE			Pu, Am				Y	Kasper 1982	
200-W	299-W18-158	G				Pu, Am				Y	Price et al. 1979	
200-W	299-W18-159		Y			Pu, Am				Y	Price et al. 1979; Smith and Additon 1980	
200-W	299-W18-162					Pu, Am					Kasper 1982	
200-W	299-W18-163	G				Pu, Am				Y	Price et al. 1979	
200-W	299-W18-164	G	Y			Pu, Am				Y	Price et al. 1979; Smith and Additon 1980	
200-W	299-W18-165	G	Y			Field Rad, Pu, Am				Y	Price et al. 1979; Smith and Additon 1980	
200-W	299-W18-166	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-167	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-168	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-169	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-17	D								Y		
200-W	299-W18-170	G				Field Rad						
200-W	299-W18-171	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-172	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-173	G				Field Rad, Pu, Am				Y	Price et al. 1979	
200-W	299-W18-174	G	Y	Y	Y	VOA, Metals, SVOA, An, Rad, Field Rad	Bden, Por	XRD		Y	Price et al. 1979; Rohay et al. 1993; Rohay et al. 1994; Wright et al. 1995	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-175	G	Y			Field Rad				Y	Price et al. 1979; Smith and Additon 1980	
200-W	299-W18-176	D								Y		
200-W	299-W18-177	D	SLATE	SLATE	Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-178	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-179	D	SLATE	SLATE		Pu, Am				Y	Kasper 1982	
200-W	299-W18-18	D								Y		
200-W	299-W18-180	D	SLATE			Pu, Am				Y	Kasper 1982	
200-W	299-W18-181	D	SLATE			Pu, Am				Y	Kasper 1982	
200-W	299-W18-182	D				Pu, Am				Y	Kasper 1982	
200-W	299-W18-183	D	SLATE			Pu, Am				Y	Kasper 1982	
200-W	299-W18-184	D				Pu, Am				Y	Kasper 1982	
200-W	299-W18-185	D				Pu, Am				Y	Kasper 1982	
200-W	299-W18-186	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-187	D, G			Y	Pu, Am					Last et al. 1994	
200-W	299-W18-188	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-189	D, G				Pu, Am					Last et al. 1994	
200-W	299-W18-19	D								Y		
200-W	299-W18-192	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-193	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-194	D, G			Y	Pu, Am				Y	Last et al. 1994	
200-W	299-W18-194	D, G								Y		
200-W	299-W18-195	D, G				Pu, Am					Last et al. 1994	
200-W	299-W18-196	D, G				Pu, Am					Last et al. 1994	
200-W	299-W18-197	D, G				Pu, Am				Y	Last et al. 1994	
200-W	299-W18-198	D, G				Pu, Am				Y	Last et al. 1994	
200-W	299-W18-198	D, G								Y		
200-W	299-W18-199	D, G								Y	Last et al. 1994	
200-W	299-W18-2	D	SLATE	SLATE	Y		Por			Y	Bierschenk 1959	
200-W	299-W18-20	D								Y		
200-W	299-W18-200	D, G				Pu, Am				Y	Last et al. 1994	
200-W	299-W18-201	D, G										
200-W	299-W18-202	D, G										
200-W	299-W18-203	D, G								Y		
200-W	299-W18-204	D, G								Y		
200-W	299-W18-205	D								Y		
200-W	299-W18-206	D								Y		
200-W	299-W18-207	D								Y		
200-W	299-W18-208	D, G								Y		
200-W	299-W18-209	D								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-21	G	SLATE	SLATE	Y	XRF, TC, IC, TOC	CEC		C-14	Y	Last et al. 1989; Schramke 1988; Bjornstad et al. no date; Ames and Serne 1991	
200-W	299-W18-210	D, G								Y		
200-W	299-W18-211	D								Y		
200-W	299-W18-212	D								Y		
200-W	299-W18-213	D, G								Y		
200-W	299-W18-214	D								Y		
200-W	299-W18-215	D								Y		
200-W	299-W18-216	D	Y							Y	Rohay et al. 1993	Hole backfilled
200-W	299-W18-217	D								Y		
200-W	299-W18-218	D, G								Y		
200-W	299-W18-219	D								Y		
200-W	299-W18-22	G	SLATE	SLATE		XRF, TC, IC, TOC	%GSSC, CEC	XRD		Y	Last et al. 1989; Schramke 1988; Bjornstad et al. no date; Ames and Serne 1991	
200-W	299-W18-220	D, G		Y	Y	VOA, SVOA, Metals, An, Rad				Y	Rohay et al. 1992	
200-W	299-W18-221	D								Y		
200-W	299-W18-222	D								Y		
200-W	299-W18-223	D								Y		
200-W	299-W18-224	D								Y		
200-W	299-W18-225	D								Y		
200-W	299-W18-226	D								Y		
200-W	299-W18-227	D								Y		
200-W	299-W18-228	D								Y		
200-W	299-W18-229	D								Y		
200-W	299-W18-23	G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W18-230	D								Y		
200-W	299-W18-231	D								Y		
200-W	299-W18-232	D								Y		
200-W	299-W18-233	D								Y		
200-W	299-W18-234	D										
200-W	299-W18-235	D										
200-W	299-W18-236									Y		
200-W	299-W18-237	D								Y		
200-W	299-W18-238	D								Y		
200-W	299-W18-239	D								Y		
200-W	299-W18-24	G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W18-240	D								Y		
200-W	299-W18-241	D								Y		
200-W	299-W18-242	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-243	D								Y		
200-W	299-W18-244	D								Y		
200-W	299-W18-245	D								Y		
200-W	299-W18-246	G	Y		Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993; Rohay et al. 1992	
200-W	299-W18-247	G			Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993	
200-W	299-W18-248	G	Y		Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993; Wright et al. 1994	
200-W	299-W18-249	G	Y		Y	Metals, VOA, SVOA, An, Lab Rad	Bden, %GSSC				Rohay et al. 1994; Last and Rohay 1993; Wright et al. 1994	
200-W	299-W18-25	G		Y	Y					Y	Caggiano 1992	
200-W	299-W18-250	G		Y	Y	VOA, Metals, An, Rad Lab				Y	Singleton and Lindsey 1994	
200-W	299-W18-251	G	Y	Y	Y	VOA, Metals, An, Rad Lab				Y	Singleton and Lindsey 1994; see R. Khaleel or G. Freeman for sieve data	
200-W	299-W18-252	G		Y	Y	VOA, SVOA, Metals, An, Rad					Rohay et al. 1993; Rohay et al. 1994	
200-W	299-W18-26	G			Y	Y				Y	Goodwin 1990	
200-W	299-W18-27	G	Y	Y	Y					Y	Mercer 1993b	
200-W	299-W18-28	G	Y	Y	Y					Y	Mercer 1993b	
200-W	299-W18-29	G	Y	Y	Y	Am, Pu				Y	Johnson 1993; Mercer 1993b	
200-W	299-W18-3	D	SLATE	SLATE						Y		
200-W	299-W18-30	G	Y	Y	Y					Y	Caggiano 1993	
200-W	299-W18-31	G	Y	Y	Y					Y	Caggiano 1993	
200-W	299-W18-32	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W18-33	G		Y	Y	VOA, Metals, An, Rad Lab				Y	Singleton and Lindsey 1994 (all data)	
200-W	299-W18-36	G									CH2M HILL files	
200-W	299-W18-37	G									CH2M HILL files	
200-W	299-W18-38	G									CH2M HILL files	
200-W	299-W18-39	G									CH2M HILL files	
200-W	299-W18-4	D	SLATE	SLATE						Y		
200-W	299-W18-5	D	SLATE	SLATE	Y		Por			Y	Bierschenk 1959	
200-W	299-W18-51	D										
200-W	299-W18-52	D										
200-W	299-W18-52	D										
200-W	299-W18-52	D										
200-W	299-W18-53	D										
200-W	299-W18-54	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-55	D										
200-W	299-W18-56	D, G										
200-W	299-W18-57	D, G	SLATE	SLATE								
200-W	299-W18-58	D, G	SLATE	SLATE						Y		
200-W	299-W18-59	D, G	SLATE	SLATE						Y		
200-W	299-W18-6	D, G	SLATE	SLATE						Y		
200-W	299-W18-61	D, G	SLATE	SLATE						Y		
200-W	299-W18-62	D, G	SLATE	SLATE						Y		
200-W	299-W18-63	D, G										
200-W	299-W18-64	D, G	SLATE	SLATE						Y		
200-W	299-W18-65	D, G	SLATE	SLATE						Y		
200-W	299-W18-66	D, G	SLATE	SLATE						Y		
200-W	299-W18-67									Y		
200-W	299-W18-68									Y		
200-W	299-W18-69	D										
200-W	299-W18-7	D, G	SLATE	SLATE						Y		
200-W	299-W18-70	D										
200-W	299-W18-71	D										
200-W	299-W18-72	D										
200-W	299-W18-73	D										
200-W	299-W18-74	D										
200-W	299-W18-75	D				Pu, Am					Kasper 1981	
200-W	299-W18-76	D, G				Field Rad						
200-W	299-W18-77	D, G				Field Rad						
200-W	299-W18-78	D, G				Field Rad						
200-W	299-W18-79	D, G				Field Rad						
200-W	299-W18-8	D										
200-W	299-W18-80	D, G				Field Rad						
200-W	299-W18-81	D, G				Field Rad				Y		
200-W	299-W18-83									Y		
200-W	299-W18-84	D								Y		
200-W	299-W18-85	D	SLATE	SLATE		Pu, Am				Y	Price et al. 1979	
200-W	299-W18-86	D	SLATE	SLATE		Pu, Am				Y	Price et al. 1979	
200-W	299-W18-87	D	SLATE	SLATE		Pu, Am				Y	Price et al. 1979	
200-W	299-W18-88	D, G	SLATE	SLATE		Pu, Am				Y	Price et al. 1979	
200-W	299-W18-89	D	SLATE	SLATE						Y		
200-W	299-W18-9	D	SLATE	SLATE						Y		
200-W	299-W18-90	D										
200-W	299-W18-91	D										
200-W	299-W18-92	D										
200-W	299-W18-93	D										
200-W	299-W18-94	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W18-95	D										
200-W	299-W18-96	D, G	Y	Y	Y	VOA, Metals, An, Rad, SVOA	Bden, Por			Y	Rohay et al. 1993; Rohay et al. 1994	
200-W	299-W18-97	D, G								Y		
200-W	299-W18-98	D, G								Y		
200-W	299-W18-99	D, G								Y		
200-W	299-W19-1	D	SLATE	SLATE						Y		
200-W	299-W19-10	D, G		Y	Y		Bden, %GSSC	EM, XRD	Paleomag		Slate 2000 (PPl only, includes descriptions); Ames 1976; Bjornstad 1984	
200-W	299-W19-11	D	SLATE	SLATE						Y		
200-W	299-W19-12	D								Y		
200-W	299-W19-13	D	SLATE	SLATE						Y		
200-W	299-W19-14	D	SLATE	SLATE						Y		
200-W	299-W19-15	D, G	SLATE	SLATE	Y	GEA				Y	PNNL files	
200-W	299-W19-16	D, G	SLATE		Y	GEA				Y	PNNL files	
200-W	299-W19-17	D, G	SLATE							Y		
200-W	299-W19-18	D, G								Y		
200-W	299-W19-19	D, G	SLATE	SLATE	Y					Y		
200-W	299-W19-2	D	SLATE	SLATE						Y		
200-W	299-W19-20	D, G	SLATE	SLATE						Y		
200-W	299-W19-21	D, G	SLATE	SLATE		MiscMetals				Y	Horton files	
200-W	299-W19-22	D, G	SLATE	SLATE	Y					Y		
200-W	299-W19-23	D, G	SLATE	SLATE						Y		
200-W	299-W19-24	D, G	SLATE	SLATE						Y		
200-W	299-W19-25	D, G	SLATE	SLATE						Y		
200-W	299-W19-26	D, G	SLATE	SLATE						Y		
200-W	299-W19-27	D, G	SLATE	SLATE	Y	MiscMetals				Y	Horton files	
200-W	299-W19-28	D, G								Y		
200-W	299-W19-29	D, G								Y		
200-W	299-W19-3	D	SLATE	SLATE						Y		
200-W	299-W19-30	D, G								Y		
200-W	299-W19-31	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W19-32	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W19-36	G	Y								Darrach 1995	
200-W	299-W19-37	G	Y								Darrach 1995	
200-W	299-W19-38	G	Y								Darrach 1995	
200-W	299-W19-39	G	Y								Darrach 1995	
200-W	299-W19-4	D										
200-W	299-W19-40	G	Y								Darrach 1995	
200-W	299-W19-41	G	Y							Y	Horton and Hodges 1999b	
200-W	299-W19-42	G	Y		Y	1:1, Alk	Cond			Y	Horton and Hodges 1999b	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W19-43	G							Paleomag		Bjornstad files	
200-W	299-W19-5	D								Y		
200-W	299-W19-53	D										
200-W	299-W19-54	D										
200-W	299-W19-55	D										
200-W	299-W19-6									Y		Only remediation logs available
200-W	299-W19-69	D	SLATE							Y		
200-W	299-W19-7	D	SLATE	SLATE						Y		
200-W	299-W19-70	D	SLATE	SLATE						Y		
200-W	299-W19-71	D	SLATE	SLATE						Y		
200-W	299-W19-72	D	SLATE							Y		
200-W	299-W19-73	D								Y		
200-W	299-W19-74	D	SLATE	SLATE						Y		
200-W	299-W19-75	D								Y		
200-W	299-W19-76	D	SLATE	SLATE						Y		
200-W	299-W19-77	G									Webster 1977	
200-W	299-W19-8	D	SLATE	SLATE						Y		
200-W	299-W19-89	D, G	SLATE		Y					Y		
200-W	299-W19-9	D										
200-W	299-W19-90	D, G	SLATE	SLATE	Y					Y		
200-W	299-W19-91	D, G	SLATE	SLATE	Y	MiscMetals				Y	Routson 1987; D. G. Horton files	
200-W	299-W19-92	D, G	SLATE	SLATE	Y	MiscMetals				Y	Routson 1987; D. G. Horton files	
200-W	299-W19-93	D, G	SLATE	SLATE	Y	MiscMetals				Y	Routson 1987; D. G. Horton files	
200-W	299-W19-95	Well Summary	Y								see R. Khaleel or G. Freeman for sieve data	
200-W	299-W21-51	D	SLATE									
200-W	299-W21-52	D	SLATE							Y		
200-W	299-W21-53	D	SLATE							Y		
200-W	299-W21-54	D	SLATE							Y		
200-W	299-W21-55	D	SLATE							Y		
200-W	299-W21-56	D	SLATE							Y		
200-W	299-W21-57	D	SLATE							Y		
200-W	299-W21-58	D	SLATE							Y		
200-W	299-W21-59	D	SLATE							Y		
200-W	299-W21-60	D	SLATE							Y		
200-W	299-W21-61	D	SLATE							Y		
200-W	299-W21-62	D	SLATE							Y		
200-W	299-W21-63	D	SLATE							Y		
200-W	299-W21-64	D	SLATE							Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W21-65	D	SLATE							Y		
200-W	299-W21-66	D	SLATE							Y		
200-W	299-W21-67	D	SLATE							Y		
200-W	299-W21-68	D	SLATE							Y		
200-W	299-W21-69	D	SLATE							Y		
200-W	299-W21-70	D	SLATE							Y		
200-W	299-W21-71	D	SLATE							Y		
200-W	299-W21-72	D	SLATE							Y		
200-W	299-W21-73	D	SLATE							Y		
200-W	299-W21-74	D	SLATE							Y		
200-W	299-W21-75	D	SLATE							Y		
200-W	299-W21-76	D	SLATE							Y		
200-W	299-W21-77	D								Y		
200-W	299-W21-78	D								Y		
200-W	299-W21-79	D								Y		
200-W	299-W21-80	D								Y		
200-W	299-W21-81	D								Y		
200-W	299-W21-82	D								Y		
200-W	299-W21-83	D								Y		
200-W	299-W22-1	D	SLATE	SLATE		Field Rad/Temp				Y		
200-W	299-W22-10	D	SLATE	SLATE		Field Rad/Temp				Y		
200-W	299-W22-11	D	SLATE	SLATE		Sr, Beta, Gamma				Y	Haney and Linderoth 1959	
200-W	299-W22-12	D	SLATE	SLATE						Y		
200-W	299-W22-13	D	SLATE	SLATE						Y		
200-W	299-W22-14	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W22-15	D				Field Rad, Sr, Beta, Gamma					Haney and Linderoth 1959	
200-W	299-W22-16	D				Sr, Beta, Gamma					Haney and Linderoth 1959	
200-W	299-W22-17	D				Field Rad						
200-W	299-W22-18	D	SLATE	SLATE		Sr, Beta, Gamma				Y	Haney and Linderoth 1959	
200-W	299-W22-19	D	SLATE	SLATE						Y		
200-W	299-W22-2	D	SLATE	SLATE		Field Rad/Temp, Sr, Beta, Gamma				Y	Haney and Linderoth 1959	
200-W	299-W22-20	D	SLATE	SLATE						Y		
200-W	299-W22-21	D	SLATE	SLATE						Y		
200-W	299-W22-22	D	SLATE	SLATE						Y		
200-W	299-W22-23	D	SLATE	SLATE						Y		
200-W	299-W22-24	D	SLATE	SLATE						Y		
200-W	299-W22-25	D	SLATE	SLATE						Y		
200-W	299-W22-26	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W22-27	D	SLATE	SLATE						Y		
200-W	299-W22-27O	D								Y		
200-W	299-W22-27P	D								Y		
200-W	299-W22-27Q	D								Y		
200-W	299-W22-27R	D								Y		
200-W	299-W22-27S	D								Y		
200-W	299-W22-28	D	SLATE							Y		
200-W	299-W22-29	D										
200-W	299-W22-3	D	SLATE	SLATE						Y		
200-W	299-W22-30	D										
200-W	299-W22-31	D								Y		
200-W	299-W22-32	D										
200-W	299-W22-33	D										
200-W	299-W22-34	D										
200-W	299-W22-35	D										
200-W	299-W22-36	D										
200-W	299-W22-37	D	SLATE	SLATE						Y		
200-W	299-W22-38	D	SLATE	SLATE						Y		
200-W	299-W22-39	G		Y	Y					Y	Caggiano 1992	
200-W	299-W22-4	D								Y		
200-W	299-W22-40	D, G	Y	Y	Y					Y	Goodwin 1990	
200-W	299-W22-41	D, G	Y	Y	Y					Y	Goodwin 1990	
200-W	299-W22-42	D, G			Y	Y				Y	Goodwin 1990	
200-W	299-W22-42	D, G	Y	Y	Y					Y	Goodwin 1990	
200-W	299-W22-43	D, G	Y	Y	Y	Y				Y	Goodwin 1990	
200-W	299-W22-44	G	Y	Y	Y	Field Rad				Y	Caggiano 1993	
200-W	299-W22-45	G		Y	Y					Y	Caggiano 1993	
200-W	299-W22-46	G		Y	Y					Y	Caggiano 1993	
200-W	299-W22-48	G	Y	Y	Y	1:1, Pwater, Aex, TOC, XRF	Cond, %GSSC, Bden, CEC	XRD, TEM	Paleomag	Y	Bjornstad et al. 2001; Horton and Johnson 2000; Serne et al. 2001a	
200-W	299-W22-49	G								Y	Horton and Johnson 2000	
200-W	299-W22-5	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W22-50	G			Y	1:1, Pwater, Aex, TOC, XRF	Cond, %GSSC, Bden, CEC	XRD	Paleomag	Y	Bjornstad et al. 2001; Horton and Johnson 2000, Serne et al. 2001a	
200-W	299-W22-51	D, G								Y		
200-W	299-W22-52	D, G								Y		
200-W	299-W22-53	D, G								Y		
200-W	299-W22-54	D, G								Y		
200-W	299-W22-55	D, G								Y		
200-W	299-W22-56	D, G										
200-W	299-W22-57	D, G								Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W22-58	D, G								Y		
200-W	299-W22-59	D, G								Y		
200-W	299-W22-6	D	SLATE	SLATE						Y		
200-W	299-W22-60	D								Y		
200-W	299-W22-61	D, G								Y		
200-W	299-W22-62	D										
200-W	299-W22-63	D								Y		
200-W	299-W22-65	D								Y		
200-W	299-W22-66	D								Y		
200-W	299-W22-67	D	SLATE	SLATE						Y		
200-W	299-W22-7	D	SLATE	SLATE						Y		
200-W	299-W22-70	D										
200-W	299-W22-73	D, G	SLATE	SLATE		Field Rad				Y		
200-W	299-W22-73	D, G	SLATE	SLATE		Field Rad in logs				Y	PNNL files	
200-W	299-W22-74	D								Y		
200-W	299-W22-75	D, G	SLATE	SLATE		Field Rad				Y		
200-W	299-W22-75	D, G	SLATE	SLATE		Field Rad in logs				Y	PNNL files	
200-W	299-W22-76	D, G				Field Rad				Y		
200-W	299-W22-77	D, G				Field Rad				Y		
200-W	299-W22-79	G								Y		
200-W	299-W22-8	D								Y		
200-W	299-W22-9	D	SLATE	SLATE						Y		
200-W	299-W23-1	D, G	SLATE	SLATE		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
200-W	299-W23-10	D	SLATE	SLATE						Y		
200-W	299-W23-100	D	SLATE	SLATE						Y		
200-W	299-W23-101	D										
200-W	299-W23-102	D										
200-W	299-W23-103	D										
200-W	299-W23-104	D										
200-W	299-W23-105	D	SLATE	SLATE						Y		
200-W	299-W23-106	D	SLATE	SLATE						Y		
200-W	299-W23-107	D	SLATE	SLATE						Y		
200-W	299-W23-108	D	SLATE	SLATE				EM, XRD		Y	Ames 1976; Tallman et al. 1979	
200-W	299-W23-109	D	SLATE	SLATE						Y		
200-W	299-W23-11	D	SLATE	SLATE						Y		
200-W	299-W23-110	D	SLATE	SLATE								
200-W	299-W23-111	D	SLATE	SLATE						Y		
200-W	299-W23-112	D	SLATE	SLATE						Y		
200-W	299-W23-113	D	SLATE	SLATE						Y		
200-W	299-W23-114	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W23-115	D										
200-W	299-W23-116	D	SLATE	SLATE						Y		
200-W	299-W23-117	D	SLATE	SLATE						Y		
200-W	299-W23-118	D										
200-W	299-W23-119	D	SLATE	SLATE						Y		
200-W	299-W23-12	D										
200-W	299-W23-120	D	SLATE	SLATE						Y		
200-W	299-W23-121	D	SLATE	SLATE						Y		
200-W	299-W23-122	D										
200-W	299-W23-123	D										
200-W	299-W23-124	D	SLATE	SLATE						Y		
200-W	299-W23-125	D	SLATE	SLATE								
200-W	299-W23-126	D								Y		
200-W	299-W23-127	D								Y		
200-W	299-W23-128	D								Y		
200-W	299-W23-129	D										
200-W	299-W23-13	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W23-130	D								Y		
200-W	299-W23-131	D								Y		
200-W	299-W23-132	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W23-133	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W23-134	D	SLATE	SLATE						Y		
200-W	299-W23-135	D	SLATE	SLATE		Field Rad				Y		
200-W	299-W23-136	D	SLATE	SLATE								
200-W	299-W23-137	D	SLATE	SLATE						Y		
200-W	299-W23-138	D	SLATE	SLATE						Y		
200-W	299-W23-139	D	SLATE	SLATE						Y		
200-W	299-W23-14	G		Y	Y					Y		
200-W	299-W23-14	G	Y	Y	Y					Y	Caggiano 1992	
200-W	299-W23-140	D	SLATE	SLATE						Y		
200-W	299-W23-141	D	SLATE	SLATE								
200-W	299-W23-142	D	SLATE	SLATE						Y		
200-W	299-W23-143	D	SLATE	SLATE						Y		
200-W	299-W23-144	D	SLATE	SLATE						Y		
200-W	299-W23-145	D	SLATE	SLATE						Y		
200-W	299-W23-146	D										
200-W	299-W23-147	D										
200-W	299-W23-148	D	SLATE							Y		
200-W	299-W23-149	D										
200-W	299-W23-15	G	Y	Y	Y					Y	Caggiano 1993	
200-W	299-W23-150	D										
200-W	299-W23-151	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W23-152	D										
200-W	299-W23-153	D	SLATE							Y		
200-W	299-W23-154	D										
200-W	299-W23-155	D										
200-W	299-W23-156	D										
200-W	299-W23-157	D										
200-W	299-W23-158	D										
200-W	299-W23-159	D										
200-W	299-W23-16	G		Y	Y	VOA, Metals, An, Rad Lab					Singleton and Lindsey 1994 (all data)	
200-W	299-W23-160	D										
200-W	299-W23-161	D										
200-W	299-W23-162	D										
200-W	299-W23-163	D	SLATE							Y		
200-W	299-W23-164	D										
200-W	299-W23-165	D										
200-W	299-W23-166	D										
200-W	299-W23-167	D	SLATE							Y		
200-W	299-W23-168	D	SLATE	SLATE						Y		
200-W	299-W23-169	D	SLATE	SLATE						Y		
200-W	299-W23-17	G		Y	Y	VOA, Metals, An, Rad Lab					Singleton and Lindsey 1994 (all data)	
200-W	299-W23-170	D	SLATE	SLATE								
200-W	299-W23-171	D	SLATE	SLATE						Y		
200-W	299-W23-172	D	SLATE	SLATE						Y		
200-W	299-W23-173	D										
200-W	299-W23-174	D										
200-W	299-W23-175	D	SLATE	SLATE						Y		
200-W	299-W23-176	D										
200-W	299-W23-178	D								Y		
200-W	299-W23-179	D	SLATE	SLATE						Y		
200-W	299-W23-180	D								Y		
200-W	299-W23-181	D	SLATE	SLATE						Y		
200-W	299-W23-182		SLATE	SLATE						Y		
200-W	299-W23-183	D	SLATE	SLATE						Y		
200-W	299-W23-184	D	SLATE	SLATE						Y		
200-W	299-W23-185	D	SLATE	SLATE						Y		
200-W	299-W23-186	D										
200-W	299-W23-187	D										
200-W	299-W23-188	D	SLATE	SLATE						Y		
200-W	299-W23-189	D	SLATE	SLATE								

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W23-19	G	Y	Y	Y	1:1, An, Pwater, GEA, Sr-90, H-3, TC, TOC, IC, Aex, XRF, An, pH	%GSSC, Bden, Cond	XRD			Serne et al. 2001b	
200-W	299-W23-190	D										
200-W	299-W23-191	D								Y		
200-W	299-W23-192	D								Y		
200-W	299-W23-193	D								Y		
200-W	299-W23-194	D								Y		
200-W	299-W23-195	D								Y		
200-W	299-W23-196	D								Y		
200-W	299-W23-197	D										
200-W	299-W23-198	D								Y		
200-W	299-W23-199	D								Y		
200-W	299-W23-2	D	SLATE	SLATE						Y		
200-W	299-W23-200	D								Y		
200-W	299-W23-201	D								Y		
200-W	299-W23-202	D								Y		
200-W	299-W23-203	D								Y		
200-W	299-W23-204	D								Y		
200-W	299-W23-205	D								Y		
200-W	299-W23-206	D								Y		
200-W	299-W23-207	D								Y		
200-W	299-W23-208	D								Y		
	299-W23-21	G							Paleomag	Y	Bjornstad files	
200-W	299-W23-210	D										
200-W	299-W23-212	D								Y		
200-W	299-W23-213	D								Y		
200-W	299-W23-216	D								Y		
200-W	299-W23-218	D								Y		
200-W	299-W23-220	D										
200-W	299-W23-223	D								Y		
200-W	299-W23-225	D								Y		
200-W	299-W23-226	D								Y		
200-W	299-W23-227	D								Y		
200-W	299-W23-228	G			Y	Pu, Cs, Sr					Last et al. 1994	
200-W	299-W23-229	D										
200-W	299-W23-234	G	Y	Y	Y	1:1, metals, An, pH, Pwater, GEA, Tc-99, Sr-90, TC, IC, Aex, XRF	%GSSC, CEC, Cond	TEM, XRD			Serne et al. 2001c	
200-W	299-W23-3	D	SLATE	SLATE						Y		
200-W	299-W23-4	D	SLATE	SLATE						Y		
200-W	299-W23-5	D	SLATE	SLATE						Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W23-51	D, G		Y						Y		
200-W	299-W23-52	D, G	SLATE	SLATE				XRD, EM		Y	Ames 1976; Tallman et al. 1979	
200-W	299-W23-53	D, G	SLATE	SLATE						Y		
200-W	299-W23-54	D, G	SLATE	SLATE						Y		
200-W	299-W23-55	D, G	SLATE	SLATE						Y		
200-W	299-W23-56	D	SLATE	SLATE						Y		
200-W	299-W23-57	D	SLATE	SLATE						Y		
200-W	299-W23-58	D	SLATE	SLATE						Y		
200-W	299-W23-59	D										
200-W	299-W23-6	D	SLATE	SLATE						Y		
200-W	299-W23-60	D										
200-W	299-W23-61	D										
200-W	299-W23-62	D	SLATE	SLATE						Y		
200-W	299-W23-64	D	SLATE	SLATE						Y		
200-W	299-W23-65	D	SLATE	SLATE						Y		
200-W	299-W23-66	D	SLATE	SLATE						Y		
200-W	299-W23-67	D	SLATE	SLATE						Y		
200-W	299-W23-68	D	SLATE	SLATE						Y		
200-W	299-W23-69	D	SLATE	SLATE						Y		
200-W	299-W23-7	D	SLATE	SLATE						Y		
200-W	299-W23-70	D	SLATE	SLATE						Y		
200-W	299-W23-71	D										
200-W	299-W23-72	D	SLATE	SLATE				XRD, EM		Y	Ames 1976; Tallman et al. 1979	
200-W	299-W23-73	D	SLATE	SLATE						Y		
200-W	299-W23-74	D	SLATE	SLATE						Y		
200-W	299-W23-75	D	SLATE	SLATE						Y		
200-W	299-W23-76	D	SLATE	SLATE						Y		
200-W	299-W23-77	D	SLATE	SLATE						Y		
200-W	299-W23-78	D	SLATE	SLATE						Y		
200-W	299-W23-79	D	SLATE	SLATE						Y		
200-W	299-W23-8	D	SLATE	SLATE						Y		
200-W	299-W23-80	D	SLATE	SLATE						Y		
200-W	299-W23-81	D										
200-W	299-W23-82	D	SLATE	SLATE						Y		
200-W	299-W23-83	D	SLATE	SLATE						Y		
200-W	299-W23-84	D	SLATE	SLATE						Y		
200-W	299-W23-85	D	SLATE	SLATE						Y		
200-W	299-W23-86	D	SLATE	SLATE						Y		
200-W	299-W23-87	D										
200-W	299-W23-88	D										
200-W	299-W23-89	D										

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W23-9	D	SLATE	SLATE						Y		
200-W	299-W23-90	D	SLATE	SLATE						Y		
200-W	299-W23-91	D	SLATE	SLATE						Y		
200-W	299-W23-92	D	SLATE	SLATE						Y		
200-W	299-W23-93	D	SLATE	SLATE						Y		
200-W	299-W23-94	D	SLATE	SLATE						Y		
200-W	299-W23-95	D	SLATE	SLATE								
200-W	299-W23-96	D	SLATE	SLATE						Y		
200-W	299-W23-97	D	SLATE	SLATE						Y		
200-W	299-W23-98	D	SLATE	SLATE						Y		
200-W	299-W23-99	D	SLATE	SLATE						Y		
200-W	299-W26-1	D										
200-W	299-W26-10	G		Y	Y					Y	Williams 1992	
200-W	299-W26-11	D, G	SLATE		Y	An, VOA, TOC, Lab Rad				Y	Airhart et al. 1990	
200-W	299-W26-12	G		Y	Y					Y	Williams 1992	(CaCO3, moisture plots only, no tabulated data)
200-W	299-W26-13	G				Lab Rad, Metals, An, SVOA, VOA				Y	Horton et al. 2000a	
200-W	299-W26-2	D	SLATE	SLATE						Y		1 ft sieve/CaCO3, 5-100 ft
200-W	299-W26-3	D	SLATE	SLATE						Y		1 ft sieve/CaCO3, 5-90 ft
200-W	299-W26-4	D	SLATE	SLATE						Y		
200-W	299-W26-5	D	SLATE	SLATE						Y		
200-W	299-W26-51	D				Field Rad				Y		
200-W	299-W26-6	D				Field Rad				Y		
200-W	299-W26-7	G	SLATE	SLATE	Y					Y	Williams 1992	
200-W	299-W26-8	D, G	SLATE		Y	An, VOA, TOC, Lab Rad				Y	Airhart et al. 1990	
200-W	299-W26-9	D, G	SLATE		Y	An, VOA, TOC, Lab Rad				Y	Airhart et al. 1990	
200-W	299-W27-1	D								Y		
200-W	299-W27-2	G		Y	Y					Y	Williams and Barnett 1993	
200-W	299-W6-1	D	SLATE	SLATE						Y		
200-W	299-W6-10	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W6-11	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W6-12	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W6-2	G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W6-3	G	Y	Y	Y					Y		
200-W	299-W6-4	G	Y	Y	Y					Y		
200-W	299-W6-5	G	Y	Y	Y					Y		
200-W	299-W6-6	G	Y	Y	Y					Y		
200-W	299-W6-7	G	Y	Y	Y	Rad Release				Y		

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
200-W	299-W6-8	G	Y	Y	Y	Rad Release				Y		
200-W	299-W6-9	G		Y	Y	Field Rad				Y	Mercer 1993a	
200-W	299-W7-1	G	SLATE	SLATE							Bjornstad 1990	
200-W	299-W7-10	G			Y					Y	Barton 1990	
200-W	299-W7-11	G	Y	Y	Y	Field Rad				Y	Mercer 1993b	
200-W	299-W7-12	G	Y	Y	Y	Field Rad				Y	Mercer 1993b	
200-W	299-W7-2	G	SLATE	SLATE	Y	XRF, TC, IC, TOC	CEC, %GSSC	XRD			Ames and Serne 1991; Bjornstad 1990; Last et al. 1989; Schramke 1988	
200-W	299-W7-3	G	SLATE	SLATE	Y	XRF, TC, IC, TOC	CEC, %GSSC	XRD			Ames and Serne 1991; Bjornstad 1990; Last et al. 1989; Schramke 1988	
200-W	299-W7-3	G	SLATE	SLATE	Y					Y	Last et al. 1989	
200-W	299-W7-4	G	SLATE	SLATE						Y	Last et al. 1989	
200-W	299-W7-5	G	SLATE	SLATE		XRF, TC, IC, TOC	CEC, %GSSC	XRD		Y	Ames and Serne 1991; Bjornstad 1990; Last et al. no date; Schramke 1988	
200-W	299-W7-51	D										
200-W	299-W7-52	D										
200-W	299-W7-53	D										
200-W	299-W7-6	G	SLATE	SLATE	Y					Y	PNNL files	
200-W	299-W7-7	G			Y	Y				Y	Goodwin 1990	
200-W	299-W7-8	G	Y	Y	Y	Y				Y	Goodwin 1990	
200-W	299-W7-9	G	Y	Y	Y						Barton 1990; Bjornstad 1990	
200-W	299-W7-9	G	Y	Y	Y					Y	Barton 1990	
200-W	299-W9-1	D, G	SLATE	SLATE	Y					Y	Bjornstad 1990; Last et al. 1989	
300	399-1-9	As-built									HWIS	
300	399-1-10A	As-built									HWIS	
300	399-1-10B	Well summary		Y	Y		%GSSC				Swanson 1992; HWIS	
300	399-1-11	As-built					Pden, Por, Bden				Swanson 1992; HWIS	
300	399-1-12	As-built									HWIS	
300	399-1-13A	As-built									HWIS	
300	399-1-13B	Well summary		Y	Y	Field Rad	Pden, Por, Bden, %GSSC				Swanson 1992; HWIS	
300	399-1-14A	As-built									HWIS	
300	399-1-14B	Well summary		Y	Y	Field Rad	Pden, Por, Bden, %GSSC				Swanson 1992; HWIS	
300	399-1-15	As-built									HWIS	
300	399-1-16A	As-built									HWIS	
300	399-1-16B	As-built									Swanson 1992; HWIS	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
300	399-1-16C	As-built							C-14		Swanson 1992; HWIS	
300	399-1-16D	As-built									HWIS	
300	399-1-17A	As-built									HWIS	
300	399-1-17B	As-built							C-14		HWIS	
300	399-1-17C	As-built									HWIS	
300	399-1-18A	As-built									HWIS	
300	399-1-18B	As-built									HWIS	
300	399-1-18C	As-built									HWIS	
300	399-1-19	As-built									HWIS	
300	399-1-20	As-built									HWIS	
300	399-1-21A	Well summary									HWIS	
300	399-1-21B	Well summary		Y	Y	Field Rad	%GSSC				Swanson 1992; HWIS	
300	399-1-22	Well summary									HWIS	
300	399-2-1	As-built									HWIS	
300	399-2-2	As-built									HWIS	
300	399-2-3	As-built									HWIS	
300	399-2-4	Well summary									HWIS	
300	399-3-1	As-built									HWIS	
300	399-3-2	As-built									HWIS	
300	399-3-3	As-built									HWIS	
300	399-3-4B	As-built									HWIS	
300	399-3-6	As-built									HWIS	
300	399-3-7	As-built									HWIS	
300	399-3-8	As-built									HWIS	
300	399-3-9	As-built									HWIS	
300	399-3-10	As-built									HWIS	
300	399-3-11	As-built									HWIS	
300	399-3-12	As-built									HWIS	
300	399-3-13	Well summary									HWIS	
300	399-3-14	Well summary									HWIS	
300	399-3-15	Well summary									HWIS	
300	399-3-16	Well summary									HWIS	
300	399-3-17	Well summary									HWIS	
300	399-4-1	As-built									HWIS	
300	399-4-5	As-built									HWIS	
300	399-4-7	As-built									HWIS	
300	399-4-8	As-built									HWIS	
300	399-4-9	As-built									HWIS	
300	399-4-10	As-built									HWIS	
300	399-4-11	As-built									HWIS	
300	399-4-12	As-built									HWIS	
300	399-4-13	As-built									HWIS	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
300	399-5-1	As-built									HWIS	
300	399-5-2	As-built									HWIS	
300	399-5-3	As-built									HWIS	
300	399-5-4A	Well summary									HWIS	
300	399-5-4B	Well summary									HWIS	
300	399-6-1	As-built									HWIS	
300	399-6-2	Well summary									HWIS	
300	399-8-1	As-built									HWIS	
300	399-8-2	As-built									HWIS	
300	399-8-3	As-built									HWIS	
300	399-8-4	As-built									HWIS	
300	399-8-5A	Well summary									HWIS	
300	399-8-5B	Well summary									HWIS	
300	399-8-5C	Well summary		Y	Y	Field Rad	%GSSC				Swanson 1992; HWIS	
300	399-8-5D	Well summary									HWIS	
600	699-16-51	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-19-47	D				H-3					Isaacson et al. 1974	
600	699-19-48	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-19-51	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-22-55	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-23-34	G	Y		Y						Fruland et al. 1989	
600	699-24-33			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-24-35	G	Y		Y						Fruland et al. 1989	
600	699-24-34A	G	Y		Y						Fruland et al. 1989	
600	699-24-34B		Y		Y						Fruland et al. 1989	
600	699-24-34C	G	Y		Y						Fruland et al. 1989	
600	699-25-55	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-25-70	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-25-33A	G	Y	Y	Y						Weekes et al. 1987	
600	699-25-33B	G	Y	Y	Y						Weekes et al. 1987	
600	699-25-34A	G	Y	Y	Y						Weekes et al. 1987	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-25-34B	G									Weekes et al. 1987	
600	699-25-34C	G	Y		Y						Fruland et al. 1989	
600	699-25-34D	G		Y	Y						Hodges 1993	
600	699-26-33	G	Y	Y	Y						Weekes et al. 1987	
600	699-26-34	G	Y	Y	Y						Weekes et al. 1987	
600	699-26-47	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-26-51	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-26-34B	G	Y	Y	Y						Hodges 1993	
600	699-26-35A	G	Y	Y	Y						Weekes et al. 1987	
600	699-26-35B	G	Y	Y	Y						Weekes et al. 1987	
600	699-26-35C	G	Y	Y	Y						Weekes et al. 1987	
600	699-26-35D	G		Y	Y						Weekes et al. 1987	
600	699-26-83A			SLATE	Y		Bden, %GSSC		Date		Baker et al. 1991; Slate 2000 (PPl only, includes descriptions)	
600	699-28-49	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-28-55	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-29-78	D	SLATE	SLATE						Y		
600	699-30-47			Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-30-51	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-30-55	D		Y	Y	pH	%GSSC, Por, Bden, CEC				Routson and Fecht 1979	
600	699-30-26C							PC, PbC			Goodwin 1993	
600	699-31-30			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-32-49			Y	Y	H-3, pH	%GSSC, Por, Bden, CEC				Isaacson et al 1974; Routson and Fecht 1979	
600	699-32-72	D	SLATE	SLATE						Y		
600	699-32-77	D	SLATE	SLATE						Y		
600	699-32-72B	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-34-51			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-34-61	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-34-89			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-34-98			Y	Y		Bden, %GSSC				Slate 2000 (PPl only, includes descriptions	
600	699-34-39A	D			Y	pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-35-58	As-built	Y								Bergeron et al. 1987; HWIS	
600	699-35-61A	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-35-65A	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-35-66B	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-35-68A	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-35-68B	G									CH2M HILL files	
600	699-35-69A	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-35-69B	G									CH2M HILL files	
600	699-35-70	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-35-78A	D	SLATE	SLATE						Y		
600	699-35-78B		SLATE	SLATE						Y		
600	699-36-58A	As-built	Y								Bergeron et al. 1987; HWIS	
600	699-36-58B	As-built	Y								Bergeron et al. 1987	
600	699-36-61	D	Y	Y		pH	CEC, %GSSC, 15-Atm				Brown 1960; McHenry 1957	
600	699-36-67	G									CH2M HILL files	
600	699-36-61B	D	Y	Y		pH	CEC				Brown 1960	
600	699-36-63A	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-36-63B	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-37-22										Slate 2000 (PPl only, includes descriptions	
600	699-37-68	G									CH2M HILL files	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-37-84			Y	Y		Bden, %GSSC		Date		Baker et al. 1991; Slate 2000 (PPl only, includes descriptions)	
600	699-37-92					XRF		PC, PbC, XRD			Goodwin 1993; Slate 2000 (PPl only, includes descriptions); Horton files	
600	699-37-47A	G						XRD		Y	Lindberg et al.1997	
600	699-38-43			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-38-61	G	Y	Y	Y		Sp. G, Bden, Por				Weekes et al. 1995	
600	699-38-68A	Well summary	Y								HWIS, see R. Khaleel or G. Freeman for sieve data	
600	699-40-13							PC, PbC			Goodwin 1993	
600	699-40-33	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-40-35	G	Y	Y	Y	Field Rad	Por , SpG			Y	Sweeney 1992	
600	699-40-36	G	Y	Y	Y	Field Rad, Metals, An, VOA, SVOA, CrIV, CN	Por , SpG			Y	Barnett 1993; Sweeney 1992; PNNL files	
600	699-40-37	G		Y		Field Rad	Por , SpG			Y	Sweeney 1992	
600	699-40-39	G	SLATE		Y	An, Rad, TOC, XRF				Y	PNNL files	
600	699-40-62	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-40-80	D								Y		
600	699-40-84			Y	Y	XRF	Bden, %GSSC	XRD, PC, PbC	Date		Baker et al. 1991; Goodwin 1993; Lindsey 1991; Slate 2000 (PPl only, includes descriptions); Horton files	
600	699-40-39B	G									CH2M HILL files	
600	699-40-40A	G								Y	Delaney 1992; CH2M HILL files	
600	699-40-40B	G								Y	Delaney 1992a	
600	699-41-35	G	Y	Y	Y	Metals, An, VOA, SVOA, CrIV, CN					Barnett 1993; PNNL files, see R. Khaleel or G. Freeman for sieve data	
600	699-41-39		Y								see R. Khaleel or G. Freeman for sieve data	
600	699-41-40	G	SLATE		Y	An, Rad, TOC, XRF					PNNL files	
600	699-41-41	G								Y		
600	699-41-42	G		Y	Y					Y	Delaney 1993	
600	699-42-30							PC, PbC			Goodwin 1993	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-42-37	G	Y		Y	Metals, An, VOA, SVOA, CrIV, CN	SpG, Bden, Por				Barnett 1993; PNNL files, see R. Khaleel or G. Freeman for sieve data	
600	699-42-41	G	Y	Y	Y		SpG , Por			Y	Delaney 1992a	
600	699-42-39 A	G								Y	Delaney 1992a	
600	699-42-39 B	G								Y	Delaney 1992a	
600	699-42-40A	D, G	Y	Y	Y		SpG , Por			Y		
600	699-42-40B	D, G	Y	Y	Y		SpG , Por			Y		
600	699-42-40C	D								Y		
600	699-42-42 B	G			Y					Y	PNNL files	
600	699-42-42A	D								Y		
600	699-42-42B	G	Y	Y	Y						Delaney 1992b; Luttrell et al. 1991	
600	699-42-E9A	D, G				Wet Chem					DOE 1993c	
600	699-43-40	G	Y	Y	Y		SpG , Por			Y	Delaney 1992a	
600	699-43-43	G	SLATE	Y	Y					Y	Delaney 1992b; Luttrell et al. 1991	
600	699-43-44	G				Metals, An, SVOA, VOA, Lab Rad					Cearlock et al. 2000	
600	699-43-45	G	SLATE		Y	An, Rad, TOC, XRF				Y	PNNL files	
600	699-43-84			Y	Y	StIso	Bden, %GSSC	XRD	Date		Baker et al. 1991; Slate 2000 (PPl only, includes descriptions; Horton files	
600	699-43-41A	D, G								Y		
600	699-43-41B	D								Y		
600	699-43-41C	D										
600	699-43-41D	D										
600	699-43-41E	G	SLATE			An, Rad, TOC, XRF				Y	PNNL files	
600	699-43-41F	G	SLATE		Y	An, Rad, TOC, XRF				Y	PNNL files	
600	699-43-41G	G	Y	Y	Y		SpG, Por			Y	Delaney 1992a	
600	699-43-41K	G								Y	PNNL files	
600	699-43-42A	D, G								Y		
600	699-43-42B	D								Y		
600	699-43-42C	D								Y		
600	699-43-42D	D								Y		
600	699-43-42E	D										
600	699-43-42F	G			Y					Y	Delaney 1992b	
600	699-43-42G	D										
600	699-43-42H	D								Y		
600	699-43-42J	G	Y	Y	Y					Y	Luttrell et al. 1991	
	699-43-84								Paleomag		Bjornstad 1984	
600	699-44-42	G	SLATE	Y	Y					Y	Delaney 1992b; Luttrell et al. 1991	
600	699-44-39B	G		Y	Y					Y	Delaney 1993	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-44-43A	D, G								Y		
600	699-44-43B	G	Y		Y	An, Rad, TOC, XRF				Y	PNNL files	
600	699-45-42			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-45-78	D								Y		
600	699-46-46	G	SLATE	SLATE						Y		
600	699-46-85										Slate 2000 (PPl only, includes descriptions)	
600	699-47-60	D		Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-47-46A	D								Y		
600	699-48-50		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
600	699-48-96	G			Y	Wet Chem, IC. TC, TOC					DOE 1993c; Fredrickson et al. 1993	
600	699-48-77A	G				Metals, An, Alpha, Beta, pH					CH2M HILL files; Laurenz 1993	
600	699-48-77B	G				Metals, An, Alpha, Beta, pH					CH2M HILL files; Laurenz 1993	
600	699-48-77D	G									CH2M HILL files	
600	699-49-57B	G	Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
600	699-50-96		Y								Slate 2000 (PPl only, includes descriptions)	
600	699-50-99						Bden, %GSSC				Lindsey 1991; Slate 2000 (PPl only, includes descriptions)	
600	699-50-17C							PC, PbC			Goodwin 1993	
600	699-50-53B		Y	Y	Y		SpG, Por, Bden				Hoffman 1992	
	699-50-96								Paleomag		Bjornstad 1984	
	699-50-99								Paleomag		Bjornstad 1984	
600	699-52-52	D, G	SLATE	SLATE						Y	Fecht and Lillie 1982	
600	699-52-54		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
600	699-52-57		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
600	699-54-17							XRD, EM			Ames 1976	
600	699-54-42			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-54-48	D								Y		
600	699-54-49	D								Y		
600	699-54-18C						AirPerm				Gaylord et al. 1991	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-54-45A	D	SLATE	SLATE						Y		
600	699-54-45B	D								Y		
600	699-55-55		Y	Y	Y		SpG, Por, Bden			Y	Hoffman 1992	
600	699-55-89			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-55-50A	D		Y		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
600	699-55-50B	D			Y					Y		
600	699-55-50C	D		Y		pH	CEC, %GSSC, 15-Atm			Y	McHenry 1957	
600	699-55-50D	D								Y		
600	699-56-53	D								Y		
600	699-56-S1	D										
600	699-59-55									Y		
600	699-60-60			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-63-90			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-65-50			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
600	699-89-35		Y	Y							SLATE	
600	699-90-34	G									Fruchter et al. 1996	Abandoned corehole
600	699-90-45										Fruchter et al. 1996	Abandoned corehole
600	699-90-37A	D										
600	699-91-37	D										
600	699-91-46	As-built									HWIS	
600	699-91-46A	As-built								Y	HWIS	Abandoned corehole
600	699-92-14	As-built	SLATE	SLATE						Y	HWIS	
600	699-93-46	As-built, Well Summary	Y								HWIS, see R. Khaleel or G. Freeman for sieve data	
600	699-93-93	As-built	SLATE	SLATE						Y	HWIS	
600	699-93-48A	As-built								Y	HWIS	Groundwater monitoring
600	699-93-48B									Y		Decommissioned
600	699-93-49B	As-built, Well Summary									HWIS	Groundwater monitoring
600	699-96-43	As-built, Well Summary								Y	HWIS	Abandoned corehole
600	699-96-49	As-built									HWIS	Groundwater monitoring
600	699-96-52	As-built									HWIS	Abandoned

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
600	699-97-43	As-built	SLATE								Fruchter et al. 1996; HWIS	Abandoned corehole
600	699-97-51A											Groundwater monitoring
600	699-97-51B	As-built									HWIS	Decommissioned 5/10/95
600	699-98-49A	As-built									HWIS	Abandoned
600	699-101-48A	As-built									HWIS	Groundwater monitoring
600	699-101-48B	As-built									HWIS	Groundwater monitoring
600	699-101-48C	As-Built									HWIS	Groundwater monitoring
MISC	800 boreholes	mixed									Fecht and Lillie 1982	
MISC	AP tank farm - six samples		Y				Pip				Last et al. 1995	
MISC	B5757	G				Metals, An, SVOA, VOA, Lab Rad					Cearlock et al. 2000	
MISC	Bergmounds		Y								Chamness 1993	
MISC	BH-16							XRD			Horton files	
MISC	BH-17							XRD			Horton files	
MISC	DH-33							PC, PbC			Goodwin 1993	
MISC	Outcrop		Y								Lindsey 1991	
MISC	Outcrop		Y				Pip				Bjornstad 1980	
MISC	Outcrops on White Bluffs							PC, PbC			Goodwin 1993	
MISC	PSPL-1	D	Y	Y	Y	pH	%GSSC, CEC, Cond				Heller et al. 1984	
MISC	PSPL-2	D	Y	Y	Y	pH	%GSSC, CEC, Cond				Heller et al. 1984	
MISC	PSPL-3	D	Y	Y	Y	pH	%GSSC, CEC, Cond				Heller et al. 1984	
MISC	PSPL-4	D	Y	Y	Y	pH	%GSSC, CEC, Cond				Heller et al. 1984	
MISC	PSPL-5	D	Y	Y	Y	pH	%GSSC, CEC, Cond				Heller et al. 1984	
MISC	samples from 3 boreholes at Sisson and Lu site				Y	An					Last and Caldwell 2001	
MISC	Surface and near-surface soil					Lab Rad				Y	DOE 1996	
MISC	Surface soil at former GTF						Lab Rad				Swanson et al. 1988	
MISC	Test pits at 216-B-2-2 ditch	G				Metals, An, SVOA, VOA, Lab Rad					Cearlock et al. 2000	
MISC	Test pits at B-pond and 216-B-3-3- ditch	G				Metals, An, SVOA, VOA, Lab Rad					Cearlock et al. 2000	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
MISC	Test Pits at Gable Mountain Pond	G				Metals, An, SVOA, VOA, Lab Rad					Cearlock et al. 2000	
MISC	U. S. Ecology, MW-10		Y				Por				Bergeron et al. 1987	
MISC	U. S. Ecology, MW-5		Y				Por				Bergeron et al. 1987	
MISC	U. S. Ecology, MW-8		Y				Por				Bergeron et al. 1987	
MISC	Various shallow boreholes done for HWVP	G	Y		Y	An,	Bden				Horton files	
MISC	Various wells at 218-W-5 burial ground				Y	Metals,	CEC	Min, XRD			Bjornstad 1990	
MISC	104 surface and outcrop soil samples					Metals, An					DOE 1993c	
MISC	11 test pits at FFTF		Y		Y		Bden, SpG				Shannon & Wilson 1970	
MISC	13 samples of topsoil by ecosystem					Wet Chem					DOE 1993c	
MISC	14 vadose zone soil samples		Y			Wet Chem		PC			DOE 1993c	
MISC	172 surface soil samples from former GTF site					An, Metals, Lab Rad					Mitchell et al. 1998	
MISC	19 borings at WNP No. 2		Y		Y		Bden,				Shannon and Wilson 1972	
MISC	19 samples from the sub pit					pH, Pb, An, IC, TC, TOC, Res					EBASCO 1992	
MISC	23 surface samples			Y		pH	CEC, %GSSC, 15-Atm				McHenry 1957	
MISC	241-AP excavation		Y	Y							Goldstrand 1984	
MISC	4 Hanford standards		Y	Y	Y	TOC, XRF, 1:1, Pwater	%GSSC, Bden, CEC	TEM, XRD			Serne et al. 2001a	
MISC	4 samples from White Bluffs							XRD			Moodie et al. 1966	
MISC	4 shallow boreholes at McGee Ranch				Y						Gee 1987	
MISC	40 boreholes at McGee Ranch	G	Y		Y						Last et al. 1987	

Area	Well Name	Log Type	Sieved	$CaCO_3$	Moisture	Chemical Properties	Physical Properties	Mineralogical Properties	Geochronological Properties	Archived	Source	Comments
MISC	5 boreholes and 13 test pits in LERF area	D									DOE 1991	
MISC	5 un-numbered boreholes at the Wye Barricade	D	Y	Y	Y	pH	%GSSC, Moist, CEC, Cond				Heller et al. 1985	
MISC	5 volcanic ash samp1es					Wet Chem					DOE 1993c	
MISC	57 shallow boreholes on the McGee Ranch	G									Lindberg 1994	
MISC	2 boreholes near 618-4 burial ground (B8780, B8781)	G			Y		Bden					Resistivity data also
TOTALS	2,640	2,501	1,124	981	356	587	269			1,740	917	169

Appendix B

Bibliography of Geologic Data for the Hanford Site

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Bibliography of Geologic Data for the Hanford Site

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Bjornstad, B. N, K. R. Fecht, and C. J. Pluhar. 2001. *Long History of Pre-Wisconsin, Ice-Age, Cataclysmic Floods: Evidence from Southeastern Washington State.* Submitted to the Journal of Geology. The paper gives magnetic polarities for several samples of Hanford formation sediment from three boreholes. See Bruce Bjornstad for data until the paper is published.

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Caggiano, J. A. 1993. *Borehole Data Completion Package for CY 1991 and CY 1992 Wells at Single-Shell Tanks.* WHC-SD-EN-DP-042, Westinghouse Hanford Company, Richland, Washington. Report contains calcium carbonate content and moisture content from samples at 5-ft intervals in 12 new wells. Some particle size distribution (GEL-07) data is also given. All analyses were done by Westinghouse Hanford Company laboratories. Geologist logs are included.

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Delaney, C. D. 1992b. ***Completion Report for the 216-B-3 Pond Drilling and Characterization Activities, FY 1988, Separations Area Ground-Water Monitoring Project.*** **WHC-SD-EN-TI-029, Westinghouse Hanford Company, Richland, Washington**. The report gives moisture data for four new RCRA wells. No discussion of methods or laboratories is given.

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DOE. 1991. ***Liquid Effluent Retention Facility Dangerous Waste Permit Application.*** **DOE/RL-90-43, Rev.0, U.S. Department of Energy, Richland, Washington**. Appendix 4F of the permit application gives particle size distribution (ASTM D-422) and moisture content (ASTM D-1557) for samples from five boreholes and 13 test pits in the LERF area. Driller's logs are also included.

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Fecht, K. R. and W. H. Price. 1977c. *Granulometric Data 241-BX Tank Farm Monitoring Well Sediments.* RHO-LD-14, Rockwell Hanford Operations, Richland, Washington. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-BX tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977d. *Granulometric Data 241-BY Tank Farm Monitoring Well Sediments.* RHO-LD-15, Rockwell Hanford Operations, Richland, Washington. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-BY tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977e. *Granulometric Data 241-C Tank Farm Monitoring Well Sediments.* RHO-LD-16, Rockwell Hanford Operations, Richland, Washington. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-C tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977f. ***Granulometric Data 241-S Tank Farm Monitoring Well Sediments.*** **RHO-LD-17, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-S tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977g. ***Granulometric Data 241-SX Tank Farm Monitoring Well Sediments.*** **RHO-LD-18, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-SX tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977h. ***Granulometric Data 241-T Tank Farm Monitoring Well Sediments.*** **RHO-LD-19, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-T tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977i. ***Granulometric Data 241-TX Tank Farm Monitoring Well Sediments.*** **RHO-LD-20, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-TX tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977j. ***Granulometric Data 241-TY Tank Farm Monitoring Well Sediments.*** **RHO-LD-21, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-TY tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R. and W. H. Price. 1977k. ***Granulometric Data 241-U Tank Farm Monitoring Well Sediments.*** **RHO-LD-22, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes within the 241-U tank farm. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R., G. V. Last, and M. C. Marratt. 1978a. ***Granulometric Data 216-A Crib Facilities Monitoring Well Sediments.*** **RHO-LD-44, Rockwell Hanford Operations, Richland, Washington**. The report gives particle size distribution and calcium carbonate content for sediment from boreholes at the 216-A liquid disposal facilities. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fecht, K. R., G. V. Last, and M. C. Marratt. 1978b. *Granulometric Data 216-B Crib Facilities Monitoring Well Sediments.* RHO-LD-45, Rockwell Hanford Operations, Richland, Washington. The report gives particle size distribution and calcium carbonate content for sediment from boreholes at the 216-B liquid disposal facilities. The procedures used to collect the data are discussed in the report. The data also appears in the ROCSAN database.

Fredrickson, J. K., F. J. Brockman, B. N. Bjornstad, P. E. Long, S. W. Li, J. P. McKinley, J. V. Wright, J. L. Conca, T. L. Kieft, and D. L. Balkwill. 1993. "Microbiological Characteristics of Pristine and Contaminated Deep Vadose Sediments from an Arid Region." *Geomicrobiology Journal*, V. 11, pp. 95-107. The report gives results of analyses of total carbon, total organic carbon, inorganic carbon, nitrate, and moisture for a few samples from three boreholes. Methods are described in the text.

Freeman-Pollard, J. R. 1994. *Engineering Evaluation of the GAO-RCED-89-157, Tank 241-T-106 Vadose Zone Investigation.* BHI-00061, Bechtel Hanford Inc., Richland, Washington. The report gives analytical results from 34 samples from one borehole drilled in 1993. Analyses include VOA (EPA 8240), SVOA (EPA 8270), metals (CLP level IV procedures, anions, radionuclides, and moisture content. The geologist's log is included.

Fruchter, J. S., J. E. Amonette, C. R. Cole, Y. A. Gorby, M. D. Humphrey, J. D. Istok, F. A. Spane, J. E. Szecsody, S. S. Teel, V. R. Vermeul, M. D. Williams, and S. B. Yabusaki. 1996. *In Situ Redox Manipulation Field Injection Test Report - Hanford 100-H Area.* PNNL-11372, Pacific Northwest National Laboratory, Richland, Washington.

Fruchter, J. S., C. R. Cole, M. D. Williams, V. R. Vermeul, J. E. Amonette, J. E. Szecsody, J. D. Istok, and M. D. Humphrey. 2000. "Creation of a Subsurface Permeable Treatment Barrier Using In Situ Redox Manipulation." *Groundwater Monitoring and Remediation Review*, p. 1-15.

Fruland, R. M, R. A. Hagan, C. S. Cline, D. J. Bates, J. C. Evans, and R. L. Aaberg. 1989. *Interim Site Characterization Report and Ground-Water Monitoring Program for the Hanford Site Solid Waste Landfill.* PNL-6823, Pacific Northwest Laboratory, Richland, Washington. The report gives results of testing for particle size distribution and moisture content of samples from six wells.

Gaylord, D. R., E. P. Poeter, and P. Townsend. 1991. *Summary Report of FY90/91 Geologic and Hydrogeologic Investigations at the Old Hanford Town Site, Washington*. The report gives the results of air permeameter measurements on several samples from one well. The report briefly discusses and gives reference to procedures. Unpublished report available from Duane G. Horton.

Gee, G. W. 1987. *Recharge at the Hanford Site: Status Report.* PNL-6403, Pacific Northwest Laboratory, Richland, Washington. The report gives moisture content for samples from four shallow boreholes at the McGee Ranch.

Gilmore, T. J, S. M. Goodwin, and D. R. Newcomer. 1989. ***Well Completion Report for Wells 199-N-69 and 199-N-70*****. Unpublished Pacific Northwest National Laboratory report**. This document compiles the data collected during the drilling construction and testing of these 2 N Area wells.

Goldstrand, P. M. 1984. ***Generalized Geology of the 241-AP Tank Farm.*** **RHO-RE-EV-31, Rockwell Hanford Operations, Richland, Washington**. This report give particle size distribution and calcium carbonate content for samples collected in the excavation for 241-AP tank farm. Procedures are include in appendices.

Goodwin, S. M. 1990. ***Borehole Completion Data Package for the 216-U-12 Crib.*** **WHC-MR-0208, Westinghouse Hanford Company, Richland, Washington**.

Goodwin, S. M. 1993. ***Petrography of the Coarse-Grained Facies of the Miocene-Pliocene Ringold Formation, South-Central Washington State.*** **M. S. Thesis, Western Washington University, Bellingham, Washington**. The thesis gives particle size distributions, pebble count data of gravels, point count data for sands from samples of the Ringold Formation taken from drill core on the Hanford Site and outcrops on the White Bluffs. Also includes unpublished pebble counts from Lindsey.

Goodwin, S. M. and B. J. Bjornstad. 1990. ***200-East and 200-West Areas Low-Level Burial Grounds Borehole Summary Report.*** **WHC-MR-0204, Westinghouse Hanford Company, Richland, Washington.**

Haney, W. A. and C. E. Linderoth. 1959. ***Exploratory Field Study of a Ground Waste Disposal Facility.*** **HW-60115, General Electric, Richland, Washington**. The report contains beta and Sr-90 values from sediment samples in five boreholes at the 216-S-2 and 216-S-2 cribs

Haney, W. A. (ed.). 1967. ***Final Report on the Effects of Ben Franklin Dam on Hanford.*** **BNWL-412, Battelle Northwest Laboratory, Richland, Washington**. The report gives laboratory measured radionuclide results from borehole samples near the 216-BY cribs, the BC cribs, the 216-A-8 crib, and the 216-A-5 crib in graphical form. BNWL radiological laboratories performed the analyses. The laboratory data sheets giving the numerical data can be obtained from Duane G. Horton.

Hartman, M. J. and K. A. Lindsey. 1993. ***Hydrogeology of the 100-N Area, Hanford Site, Washington*****. WHC-SD-EN-EV-027, Westinghouse Hanford Company, Richland, Washington**. This report describes the hydrogeologic units beneath the 100-N Area summarizing data from previous reports, and providing chemical distribution of specific contaminants. The purpose is to serve as a reference for RCRA facility plans.

Heller, P. R., G. W. Gee, and D. A. Myers. 1984. ***Geotechnical Properties: Partially Saturated Zone Characteristics of the Skagit/Hanford Site.*** **PNL-5262, Pacific Northwest Laboratory, Richland, Washington**. The reports gives the results of analyses of particle size distribution (ASTM D-422), %GSSC, CEC, calcium carbonate content, pH, electrical conductivity, and moisture content (ASTM

D-2216) from samples from five boreholes. Driller's logs are included. References to procedures are given. Particle size distribution data for sizes between 2 mm and 3 in. are tabulated; all other sizes are graphed only.

Heller, P. R., G. W. Gee, and D. A. Myers. 1985. *Moisture and Textural Variations in Unsaturated Soils/Sediments Near the Hanford Wye Barricade.* PNL-5377, Pacific Northwest Laboratory, Richland, Washington. The reports gives the results of analyses of particle size distribution (ASTM D-422), %GSSC, CEC, calcium carbonate content, pH, electrical conductivity, and moisture content (ASTM D-2216) from samples from five un-numbered boreholes. Driller's logs are included. References to procedures are given. Particle size distribution data for sizes between 2 mm and 3 in. are tabulated; all other sizes are graphed only.

Hodges, F. N. 1993. *Borehole Completion Data Package for NRDWL Facility Monitoring Wells 699-25-34D and 699-26-34B.* WHC-SD-EN-DP-055, Westinghouse Hanford Company, Richland, Washington. The report gives moisture content (GEL-14) and calcium carbonate content (GEL-19) for 5-ft interval samples from two new RCRA boreholes. Westinghouse Hanford Company's Geotechnical Engineering Laboratory did the analyses.

Hoffman, K. M. 1992. *200-BP-1 Borehole Summary Report for Tasks 2, 4, and 6.* WHC-SD-EN-TI-054, Westinghouse Hanford Company, Richland, Washington. Report contains porosity, specific gravity, calcium carbonate, bulk density, percent moisture and particle size distribution data for 13 wells and boreholes drilled in 1991 and 1992.

Horton, D. G. files Unpublished x-ray diffraction data from 150 samples of Hanford, Ringold, and Ellensburg formations from various boreholes in the 200 Areas and 100 Areas. Unpublished Dames and Moore engineering study done for Kaiser Engineers Hanford to support Hanford Waste Vitrification Project in 1989. The report contains soil engineering data from 17 boreholes. Summary lithologic logs are included. Unpublished XRF analyses of nine samples of Ringold Formation from 600 Area wells. Analyses were done by Washington State University. Data is available from Duane G. Horton.

Horton, D. G. 2000. *Borehole Data Package for Wells 299-E33-334 and 299-E33-335 at Single-Shell Tank Waste Management Area B-BX-BY*. PNNL-13199, Pacific Northwest National Laboratory, Richland, Washington. Report give moisture content every 5 ft throughout one borehole. Analyses were done at the laboratory in 3720 Building, Pacific Northwest National Laboratory.

Horton, D. G. and F. N. Hodges. 1999a. *Borehole Data Package for 1998 Wells Installed at Single-Shell Tank Waste Management Area TX-TY.* PNNL-12124, Pacific Northwest National Laboratory, Richland, Washington. Report presents several analytical results of cation exchange capacity, calcium carbonate content, alkalinity, major anions and cations, pH, and moisture content from samples from three wells. A few particle size distributions are also given. All analyses were done in the 3720 Building laboratories, Pacific Northwest National Laboratory.

Horton, D. G. and F. N. Hodges. 1999b. ***Borehole Data Package for 1998 Wells Installed at Single-Shell Tank Waste Management Area U.*** **PNNL-12126, Pacific Northwest National Laboratory, Richland, Washington**. Report contains analyses of cation exchange capacity, calcium carbonate content, major cations and anions, alkalinity, moisture content, electrical conductivity and pH for 28 samples from one well. Also, reported are four particle size distribution results from two wells. Analyses were done in the laboratories at 3720 Building, Pacific Northwest National Laboratory.

Horton, D. G. and F. N. Hodges. 1999c. ***Borehole Data Package for 1998 Wells Installed at Single-Shell Tank Waste Management Area T.*** **PNNL-12125, Pacific Northwest National Laboratory, Richland, Washington**. Report contains analyses of major cations, major anions and alkalinity, moisture content, and inorganic carbon for four samples from one borehole. Also, a few particle size distribution results are given. Analyses were done in 3720 Building, Pacific Northwest National Laboratory.

Horton, D. G. and S. M. Narbutovskih. 1999. ***Borehole Data Package for Well 299-E33-44 at Single-Shell Tank Farm Waste Management Area B-BX-BY.*** **PNNL-12128, Pacific Northwest National Laboratory, Richland, Washington**. Report contains analytical results for cation exchange capacity, calcium carbonate content, major cations and anions, alkalinity, moisture content, electrical conductivity, and pH for 26 samples from one borehole. Particle size distributions for nine samples are also given.

Horton, D. G. and V. G. Johnson. 2000. ***Borehole Data Package for Wells 200-W22-48, 299-W22-49, and 299-W22-50 at Single-Shell Tank Waste Management Area S-SX.*** **PNNL-13200, Pacific Northwest National Laboratory, Richland, Washington**. Report contains several analytical results of conductivity, pH, and moisture content from one split-spoon cored well and conductivity, pH, moisture content, and bulk density from on drive barrel sampled well. All analyses were done in the laboratories at the 3720 Building, Pacific Northwest National Laboratory.

Horton, D. G., B. A. Williams, and C. S. Cearlock. 2000. ***Borehole Data Package for the 216-S-10 Pond and Ditch Well 299-W26-13.*** **PNNL-13198, Pacific Northwest National Laboratory, Richland, Washington**. Report contains field determination of bulk density, moisture content (ASTM D-2216), pH, and particle size distribution (ASTM D-422) for three samples. The report also contains laboratory analytical results from seven samples and three QC samples for VOA, SVOA, anions, PCBs, and selected metals.

Isaacson, R. E., L. E. Brownell, and J. C. Hanson. 1974. ***Soil Moisture Transport in Arid Site Vadose Zones.*** **ARH-2983, Atlantic Richfield Hanford Company, Richland, Washington**. The report gives results of testing for pH and percent gravel, sand, silt and clay for 5-ft interval samples from well 699-32-49. Also included are tritium content of soil moisture for some samples from 699-19-47, 699-32-49B and 699-32-49 D.

Johnson, V. G. 1993. ***Groundwater Impact Assessment Report for the 216-Z-20 Crib, 200 West Area.*** **WHC-EP-0674, Westinghouse Hanford Company, Richland, Washington**. The report contains Am-241 and Pu-239 laboratory results from eight samples from one well. Americium was determined by low energy gamma-ray spectrometry.

Kasper, R. B. 1981. ***216-Z-12 Crib Status Report.*** **RHO-LD-166, Rockwell Hanford Operations. Richland, Washington**. Report contains the results of Pu-239 and Am-241 on sediment samples from previous studies.

Kasper, R. B. 1982. ***216-Z-12 Transuranic Crib Characterization: Operational History and Distribution of Plutonium and Americium.*** **RHO-ST-44, Rockwell Hanford Operations, Richland, Washington**. The report contains analytical results for Pu-238, Pu-239/240, and Am-241 on samples from seven boreholes. Analytical laboratories were Rockwell laboratories in the 200 West Area, Eberline Instrument Corporation Laboratory, and LFE Environmental Analytical Laboratory.

Kasza, G. L. 1992. ***Borehole Completion Data Package for 216-A-29 RCRA Facility Monitoring Wells: Calendar Year 1991.*** **WHC-SD-EN-DP-047, Westinghouse Hanford Company, Richland, Washington**. Report contains calcium carbonate content and moisture content from samples at 5-ft intervals in four new wells. (Moisture was measured only in intervals where no water was added.) All analyses were done by Westinghouse Hanford Company laboratories. Geologist logs are included.

Kasza, G. L. 1993. ***Borehole Completion Data Package for 216-A-29 RCRA Facility Monitoring Wells 299-E25-47 and 299-E25-48.*** **WHC-SD-EN-DP-054, Westinghouse Hanford Company, Richland, Washington**. The report gives moisture content (GEL-14) and calcium carbonate content (GEL-19) for 5-ft interval samples from two new RCRA boreholes. Westinghouse Hanford Company's Geotechnical Engineering Laboratory did the analyses.

Khaleel, R. 1999. ***Far-Field Hydrology Data Package for Immobilized Low-Activity Tank Waste Performance Assessment.*** **HNF-4769, Rev. 1, Fluor Federal Services, Richland, Washington**. This report presents the laboratory measurements on physical and hydraulic properties for soil samples at the immobilized low-activity waste disposal site.

Last, G. V. and T. G. Caldwell. 2001. ***Core Sampling in Support of the Zone Transport Field Study.*** **PNNL-13454, Pacific Northwest National Laboratory, Richland, Washington**. Borehole logs, moisture content, bromide and chloride content for three split spoon sampled holes at the Sisson and Lu site. Halide analyses were done by ion specific electrodes.

Last, G. V. and V. J. Rohay. 1993. ***Refined Conceptual Model for the Volatile Organic Compounds-Arid Integrated Demonstration and 200 West Area Carbon tetrachloride Expedited response Action.*** **PNL-8597, Pacific Northwest Laboratory, Richland, Washington**. This report gives results of analyses for volatile organics, anions, cyanide, mercury lead, metals, and radionuclides on samples from six wells at the 216-Z-9 trench and 216-A-1A tile field.

Last, G. V, R. J. Serne, and V. L. LeGore. 1995. ***Field Lysimeter Studies for Performance Evaluation of Grouted Hanford Defense Wastes.*** **PNL-10166, Pacific Northwest Laboratory, Richland, Washington**. The report gives particle size analyses for samples collected from excavated soils from 241-AN tank farm.

Last, G. V, M. A. Glennon, M. A. Young, and G. W. Gee. 1987. *Protective Barrier Materials Analysis: Fine Soil Site Characterization.* PNL-6314, Pacific Northwest Laboratory, Richland, Washington. The report gives moisture content (ASTM D-2216) and particle size distribution (procedure developed by D. L. Uebelacker) for samples from 40 test holes at the McGee Ranch. Samples were obtained by split-spoon methods.

Last, G. V., B. N. Bjornstad, M. P. Bergeron, D. W. Wallace, D. R. Newcomer, J. A. Schramke, M. A. Chamness, C. S. Cline, S. P. Airhart, and J. S. Wilbur. 1989. *Hydrogeology of the 200 Areas Low-Level Burial Grounds - An Interim Report.* PNL-6820, Vol. 2, Pacific Northwest Laboratory, Richland, Washington. The report contains soil moisture content of samples from 24 new RCRA wells. Analytical procedures are discussed in the text.

Last, G. V., D. W. Duncan, M. J. Graham, M. D. Hall, V. W. Hall, D. S. Landeen, J. G. Leitz, and R. M. Mitchell. 1994. *216-U-10 Pond and 216-Z-19 Ditch Characterization Studies.* WHC-EP-0707, Westinghouse Hanford Company, Richland, Washington. Report contains analytical results for Sr-90, Sc-137, Pu-239/240, and Am-241 from several samples obtained from several boreholes. The analyses were done by Rockwell Operations Laboratories, LFE Environmental Analytical Laboratory, and Eberline Technology Laboratory.

Laurenz, J. E. 1993. *Characterization Regulatory Support Document, Project C-018H Soil Column Disposal Siting Evaluation.* WHC-SC-C018H-TI-001, Westinghouse Hanford Company, Richland, Washington. The report gives the results of analyses for metals, anions gross alpha, gross beta, Cs-137, and pH for a small number of samples from wells 699-48-77A and 699-48-77B.

Liikala, T. L., R. L. Aaberg, N. J. Aimo, D. J. Bates, T. J Gilmore, E. J. Jensen, G. V. Last, P. L. Oberlander, K. B. Olsen, K. R. Oster, L. R. Roome, J. C. Simpson, S. S. Teel, and E. J. Westergard. 1988. *Geohydrologic Characterization of the Area Surrounding the 183-H Solar Evaporation Basins.* PNL-6728, Pacific Northwest Laboratory, Richland, Washington.

Lindberg, J. W. 1994. *Geology of the McGee Ranch Site, Area B: Phase II Characterization.* WHC-SD-EN-TI-206, Westinghouse Hanford Company, Richland, Washington. The report gives the geologist's logs for 57 shallow boreholes drilled to assess the amount of fine-grained soil for use in surface barriers.

Lindberg, J. W., B. A. Williams, and F. A. Spane. 1997. *Borehole Data Package for Well 699-37-47A, PUREX Plant Cribs, CY 1996.* PNNL-11515, Pacific Northwest National Laboratory, Richland, Washington. The report contains the geologist's log and minor analytical results for one borehole. Analytical results include x-ray diffraction for one sample of Ringold Formation lower mud and physical properties data for four samples. The physical properties include particle size distribution (ASTM D-422), specific gravity (ASTM D-854), and calcium carbonate content (ASTM D-4373).

Lindsey, K. A. 1991. Unpublished letter report containing particle size distribution data from boreholes and outcrops of Hanford formation and Ringold Formation. Outcrop locations are on the east side of the Columbia River across from the 300 Area, at Taylor Flats and on the 200 Area Plateau. Data is available from Duane G. Horton. Analyses were done by Westinghouse Hanford Company's Solids Characterization and Barriers Laboratory.

Lindsey, K. A. 1992. *Geology of the Hanford Site, An Outline of Data Sources and Geologic Setting of the 100 Areas.* WHC-SD-EN-TI-011, Westinghouse Hanford Company, Richland, Washington.

Lindsey, K. A. and G. K. Jaeger. 1993. *Geologic Setting of the 100-HR-3 Operable Unit, Hanford Site, South-Central Washington*. WHC-SD-EN-TI-132, Westinghouse Hanford Company, Richland, Washington.

Luttrell, S. P., K. R. Oster, and D. R. Newcomer. 1991. *Completion Report for the 216-B-3 Pond Drilling and Characterization Activities, FY 1988, Separations Area Ground-Water Monitoring Project.* WHC-SD-EN-TI-030, Westinghouse Hanford Company, Richland, Washington. The report gives particle size distributions, calcium carbonate content, and geologist's logs for four wells in the B-pond area.

McHenry, J. R. 1957. *Properties of Soils of the Hanford Project.* HW-53218, Hanford Atomic, Products Operation, General Electric, Richland, Washington. This report gives the analytical results of testing many sediment samples from 33 wells in the 200 and 600 Areas and 28 surface locations in the Hanford Site vicinity. The sampled wells were drilled by "hard-tool." References to procedures used are given in the text. The analytical tests include percent gravel-sand-silt-clay, pH, 15-Atmosphere moisture, calcium carbonate content, and cation exchange capacity.

Mercer, R. B. 1993a. *1992 Borehole Completion Data Package for the Low-Level Burial Grounds.* WHC-SD-EN-DP-049, Westinghouse Hanford Company, Richland, Washington. Report contains calcium carbonate content and moisture content from samples at 5-ft intervals in ten new wells. All analyses were done by Westinghouse Hanford Company laboratories. Geologist logs are included.

Mercer, R. B. 1993b. *1991 Borehole Completion Data Package for the Low-Level Burial Grounds.* WHC-SD-EN-DP-044, Westinghouse Hanford Company, Richland, Washington. Report contains calcium carbonate content and moisture content from samples at 5-ft intervals in 18 new wells. (Moisture was measured only in intervals where no water was added.) All analyses were done by Westinghouse Hanford Company laboratories. Geologist logs are included.

Mercer, R. B. 1994. *1993 Borehole Completion Data Package for the Low-Level Burial Grounds.* WHC-SD-EN-DP-086, Westinghouse Hanford Company, Richland, Washington. The report gives moisture content (GEL-14) and calcium carbonate content (GEL-19) for 5-ft interval samples from two new RCRA boreholes. Westinghouse Hanford Company's Geotechnical Engineering Laboratory did the analyses.

Mitchell, R. M., D. L. Edwards, B. M. Markes, R. K. Price, and K. D. Reynolds. 1998. *TWRS Phase 1 Privatization Site Preconstruction Characterization Report.* HNF-2067, Fluor Daniel Hanford, Inc., Richland, Washington. The report provides laboratory analyses of cyanide (EPA method 9010), anions (EPA method 300.0), metals (EPA method 6010A) and radionuclides (laboratory standard operating procedures) on 76 surface soil samples from the former Grout Treatment Facility site. Analyses were done by the Hanford Site Waste Sampling and Characterization Facility and Special Analytical Services laboratories. Quanterra was the QC lab. Data are available electronically.

Moodie, C. D., R. Okazaki, H. W. Smith, and J. A. Kittrick. 1966. "A Note on the Clay Mineralogy of Four Samples from the Ringold Formation." *Northwest Science*, v. 40, p. 43-45. The report gives qualitative results of x-ray diffraction analysis of three size fractions of four samples of the Ringold Formation from the White Bluffs.

Myers, D. A., V. M. Johnson, M. Mehlhorn, and L. D. Walker. 1996. *Well Summary Report: 100-HR-3 and 100-KR-4 Interim Remedial Action Wells.* BHI-00953, Bechtel Hanford, Inc., Richland, Washington.

Newcomer, D. R., L. A. Doremus, S. H. Hall, M. J. Truex, V. R. Vermeul, and R. E. Engelman. 1995. *Geology, Hydrology, Chemistry, and Microbiology of the In Situ Bioremediation Demonstration Site.* PNL-10422, Pacific Northwest Laboratory, Richland, Washington. The report gives the results of analyses of %GSSC (PNL JEA-2), XRD (PNL JEA-3) , total iron/ferrous iron, amorphous silica, nitrogen, phosphorus, bulk and particle density (PNL SA-9), and porosity for a few samples from one well. The results of analyses of total carbon, organic carbon and inorganic carbon are given for samples from two wells and VOC results are given for three wells. The text references the procedures used.

Opitz, B. E. 1982. *A Laboratory Evaluation of the 100N Disposal Basin Sediments*. Prepared for the NUC Nuclear Industries by Pacific Northwest Laboratory, Richland, Washington. This report describes the laboratory testing of the chemical properties of sediments and solutions at the 100 N Area disposal basin. The purpose of the study was to evaluate the drainage capacity of the sediment for basin design.

Pearson, A. W. 1990. *Borehole Summary Report for Twelve Single-Shell Tank Wells Installed in 1989.* WHC-MR-0209, Westinghouse Hanford Company, Richland, Washington. The report gives the result of analyses of gross alpha, gross beta, VOA, anions, and total organic carbon for five samples from each of twelve wells.

Peterson, R. E., R. F. Raidl, and C. W. Denslow. 1996. *Conceptual Site Models for Groundwater Contamination at the 100-BC-5, 100-KR-4, 100-HR-3, and 100-FR-3 Operable Units.* BHI-00917, Bechtel Hanford Company, Richland, Washington.

Price, S. M., R. B. Kasper, M. K. Additon, R. M. Smith, and G. V. Last. 1979. *Distribution of Plutonium and Americium beneath the 216-Z-1A Crib: A Status Report.* RHO-ST-17, Rockwell Hanford Operations, Richland, Washington. This report contains the results of about 400 analyses of Am-241 and Pu-239/240 on samples from 16 wells drilled between 1973 and 1979. Samples were collected by split tube or drive barrel. Samples were analyzed by laboratories in the 200 West Area and Pacific Northwest Laboratory. Selected samples were analyzed by Inteelcom Radiation Technology Laboratory and LFE Laboratory.

Prater, L. S. 1984. ***Geology of the Area to the Northeast of the 1325-N Crib*****. PNL-6865, Pacific Northwest Laboratory, Richland, Washington**. This report summarizes the drilling logs, provides the geophysical logs and aquifer testing results of several wells near the head end of the 1325-N Crib.

Reidel, S. P. and D. G. Horton. 1999. ***Geologic Data Package for 2001 Immobilized Low-Activity Waste Performance Assessment.*** **PNNL-12257, Rev. 1, Pacific Northwest National Laboratory, Richland, Washington**. This report gives the results of paleomagnetic analysis of seventeen sediment samples of the Hanford formation from well 299-E17-21.

Rohay, V. J. 1995. ***FY 1993 Wellfield Enhancement Status Report and Data Package for the 200 West Area Carbon Tetrachloride Expedited Response Action.*** **BHI-00105, Bechtel Hanford, Inc., Richland, Washington**. This report contains the geologist's log, and data from analyses of particle size distribution, moisture content, calcium carbonate content, VOA, anions, CN, Hg, Pb, SVOA, and metals from samples obtained from borehole 299-W15-223.

Rohay, V. J. and D. C. Weekes. 1998. ***Borehole Summary Report for the 216-B-2-2 Ditch.*** **BHI-01177, Bechtel Hanford Inc., Richland, Washington**. Report describes the drilling and sampling and analysis results from one characterization borehole. Laboratory chemical analyses were done by EPA approved methods; radionuclide analyses by standard laboratory procedures; specific gravity by ASTM D-854; cation exchange capacity by EPA 9081; organic carbon by EPA 9060, density by ASTM D-2937; particle size distribution by ASTM D-422; and percent moisture by ASTM D-2216. A geologist's log is included.

Rohay, V. J., G. V. Last, V. L. King, and L. A. Doremus. 1992. FY92 Site Characterization Status Report and Data Package for the Carbon Tetrachloride Site. WHC-SD-EN-TI-063. Westinghouse Hanford Company, Richland, Washington.

Rohay, V. J., K. J. Swett, and G. V. Last. 1994. ***1994 Conceptual Model of the Carbon Tetrachloride Contamination in the 200 West Area at the Hanford Site.*** **WHC-SD-EN-TI-248, Westinghouse Hanford Company, Richland, Washington**. This report contains percent gravel-sand-silt-clay, bulk density and moisture content for 62 samples from nine boreholes determined in previous studies. Laboratory chemical analysis of VOAs are reported for five new and two deepened wells and anions, metals, SVOAs, and radionuclide activities are reported for one new well.

Rohay, V. J., K. J. Swett, V. M. Johnson, G. V. Last, D. C. Lanigan, and L. A. Doremus. 1993. ***FY93 Site Characterization Status Report and Data Package for the Carbon Tetrachloride Site.*** **WHC-SD-EN-TI-202, Westinghouse Hanford Company, Richland, Washington**. The report contains the results of analyses of moisture content, calcium carbonate content, VOA, SVOA, metals, cations, anions, and radionuclides from samples from 6 new wells. Also included are particle size distribution, bulk density, and porosity data for samples from two wells. The Westinghouse Geotechnical Laboratory did the analyses of particle size distribution, density and porosity. Geologist's logs are included.

Routson, R. C. 1987. *Impact of the Uranium Release (August 6, 1986) to the 216-U-14 Ditch.* Internal Memo 65631-87-054. Westinghouse Hanford Company, Richland, Washington. Memo gives U-235 values for 5-ft interval samples from three boreholes drilled in 1987 at the 216-U-14 ditch. See Duane G. Horton for data.

Routson, R. C. and K. R. Fecht. 1979. *Soil (Sediment) Properties of Twelve Hanford Wells with Geologic Interpretation.* RHO-LD-82, Rockwell Hanford Operations, Richland, Washington. This report give analytical results for pH, calcium carbonate content, cation exchange capacity, bulk density, porosity, and percent gravel-sand-silt-clay (hydrometer) for 5-ft interval samples from 12 wells. Procedures are described in the text.

Routson, R. C., W. H. Price, D. J. Brown, and K. R. Fecht. 1979. *High-Level Waste Leakage from the 241-T-106 Tank at Hanford.* RHO-ST-14, Rockwell Hanford Operations, Richland, Washington. The report gives x-ray diffraction and scanning electron microscopy mineralogy for several samples. General, representative physical property data are given for sediment in the 200 West Area.

Routson, R. C., G. S. Barney, R. M. Smith, C. H. Delegard, and L. Jensen. 1981. *Fission Product Sorption Parameters for Hanford 200 Area Sediment Types.* RHO-ST-35, Rockwell Hanford Operations, Richland, Washington. This report includes results of cation exchange capacity measurements, calcium carbonate content, texture (particle size by hydrometer), and qualitative mineralogy by x-ray diffraction from 21 samples of Hanford Site sediments collected from boreholes in the 200 Areas. See the report for references to procedures.

Schramke, J. A. 1988. *Characterization of 200 Area Soil Samples.* Internal Letter Report, Pacific Northwest National Laboratory, Richland, Washington. The report gives the results of particle size distribution (hydrometer), XRD, XRF, total carbon, inorganic carbon, total organic carbon, and cation exchange capacity analyses of several samples from wells at low-level burial grounds. The procedures for cation exchange capacity and s-ray diffraction are given in the text.

Serkowski, J. A. 1986. Internal letter report, Rockwell Hanford Operations, Richland, Washington. The letter report give graphic moisture data and tabulated percent gravel-sand-silt-clay for five boreholes at 241-A tank farm. See Duane G. Horton for data.

Serne, R. J., H. T. Schaef, B. N. Williams, D. C. Lanigan, D. G. Horton, R. E. Clayton, V. L. LeGore, M. J. O'Hara, C. F. Brown, K. E. Parker, I. V. Kutnyakov, J. N. Serne, A. V. Mitroshkov, G. V. Last, S. C. Smith, C. W. Lindenmeier, J. M. Zachara, and D. B. Burke. 2001a. *Characterization of Uncontaminated Sediments from the Hanford Reservation - RCRA Borehole Core Samples and Composite Samples.* PNNL-2001-1, Pacific Northwest National Laboratory, Richland, Washington. This report presents results of detailed physical and chemical characterization of vadose zone sediments from two RCRA boreholes and four composite samples which are "standards" for the Hanford and upper Ringold formations. Analytical procedures are well documented. Analyses include moisture content, particle size distribution including hydrometer, calcium carbonate content, organic carbon content, x-ray fluorescence, x-ray diffraction, transmission electron microscopy composition of clay minerals, cation exchange capacity, 1:1 water extracts (pH, alkalinity, anions, metals), nitric acid extract (anions and metals) ammonium acetate extract (metals), and pore water composition (cations, anions, pH, and alkalinity).

Serne, R. J, H. T. Schaef, B. N. Bjornstad, D. C. Lanigan, G. W. Gee, C. W. Lindenmeier, R. E. Clayton, V. L. LeGore, R. D. Orr, M. J. O'Hara, C. F. Brown, G. V. Last, I. V. Kutnyakov, D. B. Burke, T. C. Wilson, and B. A. Williams. 2001b. ***Geologic and Geochemical Data Collected from Vadose Zone Sediments from Borehole 299-W23-19 [SX-115] in the X/SX Waste Management Area and Preliminary Interpretations.*** **PNNL-2001-3, Pacific Northwest National Laboratory, Richland, Washington**. This report presents results of detailed physical and chemical characterization of vadose zone sediments from one borehole. Analytical procedures are well documented. Analyses include moisture content, particle size distribution including hydrometer, calcium carbonate content, organic carbon content, total carbon content, inorganic carbon content, gamma energy analysis, tritium, strontium-90, x-ray fluorescence, x-ray diffraction, transmission electron microscopy composition of clay minerals, cation exchange capacity, 1:1 water extracts (pH, alkalinity, anions, metals), nitric acid extract (anions and metals) , and pore water composition (cations, anions, pH, and alkalinity).

Serne, R. J., G. V. Last, G. W. Gee, H. T. Schaef, D. C. Lanigan, C. W. Lindenmeier, R. E. Clayton, V. L. LeGore, R. D. Orr, M. J. O'Hara, C. F. Brown, A. T. Owen, I. V. Kutnyakov, T. C. Wilson, and D. A. Myers. 2001c. ***Geologic and Geochemical Data Collected from Vadose Zone Sediments from Borehole SX 41-09-39 in the S/SX Waste Management Area and Preliminary Interpretations.*** **PNNL-2001-2, Pacific Northwest National Laboratory, Richland, Washington**. This report presents results of detailed physical and chemical characterization of vadose zone sediments from borehole 41-09-39 (299-W23-234). Analytical procedures are well documented. Analyses include moisture content, particle size distribution including hydrometer, calcium carbonate content, total carbon content, inorganic carbon content, gamma energy analysis, tectnetium-99, strontium-90, x-ray fluorescence, x-ray diffraction, transmission electron microscopy composition of clay minerals, cation exchange capacity, pH, alkalinity, anions, and metals. Analyzed media include sediment, pore water, 1:1 water extract and acid extract.

Shannon & Wilson. 1970. ***Report on Sampling of Soils and Laboratory Testing FFTF Site, Richland, Washington.*** **Shannon & Wilson, Seattle, Washington**. The report gives results of testing for particle size distribution (including some hydrometer) (ASTM D-422), specific gravity (ASTM D-854), density (ASTM D-2049), moisture content (ASTM D-2216), and some geoengineering tests (Atterberg limits, compaction, compression) for several samples from 11 test pits in the FFTF area. See George V. Last for data.

Shannon & Wilson. 1972. ***Supplementary Soils Investigation, Washington Public Power Supply System, Hanford No. 2 Nuclear Power Plant, Central Plant Facilities, Benton County, Washington.*** **Shannon & Wilson, Inc., Seattle, Washington**. The report gives particle size distribution, densities, summary geologist's logs, field moisture content, and some geoengineering data (compaction tests and elastic and shear modulus) results for several samples from 19 borings, 4 cone penetrometer probings, and one trench in the area of WPPSS No. 2 plant. See George V. Last for data.

Singleton, K. M. and K. A. Lindsey. 1994. *Groundwater Impact Assessment Report for the 216-U-14 Ditch.* WHC-EP-0698, Westinghouse Hanford Company, Richland, Washington. The report contains the results of laboratory testing for calcium carbonate content and particle size on sediment samples from three new groundwater wells and two new perched water wells at 216-U-14 ditch. The report also contains results of chemical analyses for 40 CFR 264 Appendix IX constituents in samples from the five wells and three test pits and radiological analyses of samples from the wells. Samples were collected and handled according to Westinghouse procedures in WHC-CM-7-7. Physical property analyses were done according to procedures in WHC-EP-0367.

Slate, J. L. 2000. *Nature and Variability of the Plio-Pleistocene Unit in the 200 West Area of the Hanford Site.* BHI-01203, Bechtel Hanford Inc., Richland, Washington. This report presents detailed descriptions of Plio-Pleistocene sediments from 14 cores in and near the 200 West Area. Analytical data include bulk density, calcium carbonate content, percent gravel-sand-silt-clay and carbon and oxygen isotopic composition. (Isotopic composition from four samples.) The report also include thin-section descriptions and photomicrographs.

Smith, R. M. 1980. *216-B-5 Reverse Well Characterization Study.* RHO-ST-37, Rockwell Hanford Operations, Richland, Washington. The report contains analyses for Cs-137, Sr-90, Pu-239/240, and Am-241 from six wells drilled and sampled with a split tube sampler in 1979. Rockwell Hanford Operations and Eberline Instrument Corporation laboratories did the analyses.

Smith, R. M. and M. K. Additon. 1980. *Granulometric Analysis of Sediments Containing Transuranic Radionuclides.* RHO-LD-123, Rockwell Hanford Operations, Richland, Washington. The report gives particle size distribution of 5-ft interval samples from two contaminated boreholes at 216-Z-1A. The analyses were done by sonic sifter. The various size fractions of nine samples were analyzed for Pu and Am.

Smoot, J. L, J. E. Szecsody, B. Sagar, G. W. Gee, and C. T. Kincaid. 1989. *Simulations of Infiltration of Meteoric Water and Contaminant Plume Movement in the Vadose Zone at Single-Shell Tank 241-T-106 at the Hanford Site.* WHC-EP-0332, Westinghouse Hanford Company, Richland, Washington. The report includes graphical representation of particle size distribution for samples obtained in the 241-AP tank farm pit. Analyses were done by method ASTM D-422. Percent gravel, sand, silt, and clay is given for each sample.

Subrahmanyam, V. B. 1986. Internal letter report, Rockwell Hanford Operations, Richland, Washington. The letter report gives laboratory radionuclide analyses from samples collected from three boreholes at the 216-B-2-3 ditch in the 218-E12B burial ground. See Duane G. Horton for data.

Swanson, L. C. 1992. ***Borehole Completion Data Package for Grout Treatment Facility Well 299-E25-39.*** **WHC-SD-EN-DP-048, Westinghouse Hanford Company, Richland, Washington**. The report gives moisture content and calcium carbonate content for 5-ft interval samples from one new RCRA boreholes.

Swanson, L. C. 1993. ***CY 1992 Borehole Completion Data Package, Grout Treatment Facility Wells 299-E25-44 and 299-E25-45.*** **WHC-SD-EN-DP-058, Westinghouse Hanford Company, Richland, Washington**. The report gives moisture content and calcium carbonate content for 5-ft interval samples from two new RCRA boreholes.

Swanson, L. C. 1994. ***1993 Borehole Completion Data Package, Grout Treatment facility Wells 299-E25-49, 299-E25-50, and 299-E25-1000.*** **WHC-SD-EN-DP-085, Rev. 0, Westinghouse Hanford Company, Richland, Washington**. Report contains calcium carbonate content and moisture content from samples at 5-ft intervals in three new wells. (Moisture was measured only in intervals where no water was added.) All analyses were done by Westinghouse Hanford Company laboratories. Geologist logs are included.

Swanson, L. C, D. C. Weekes, S. P. Luttrell, R. M. Mitchell, D. S. Landeen, A. R. Johnson, and R. C. Roos. 1988. ***Grout Treatment Facility Environmental Baseline and Site Characterization Report.*** **WHC-EP-0150, Westinghouse Hanford Company, Richland, Washington**. The report gives laboratory results of analyses on 47 samples from 17 boreholes and four groundwater wells. Laboratory analyses include wet chemistry, selected metals, pH, alkalinity, cation exchange capacity, selected anions, and radionuclides done by U.S. Testing laboratory according to standard laboratory operating procedures. Moisture content was determined according to procedures in RHO-RE-MA-20.

Sweeney, M. D. 1993a. ***Borehole Completion Data Package for the 200 Areas Treated Effluent Basin - Project W-049H.*** **WHC-SD-EN-SP-068, Westinghouse Hanford Company, Richland, Washington**. Report contains calcium carbonate content (GEL-19) and moisture content (GEL-14) from samples at 5-ft intervals in three new wells. In addition, moisture content (GEL-14), specific gravity (GEL-10), porosity, and bulk density (GEL-16) were determined for 12 specific intervals. All analyses were done by Westinghouse Hanford Company's Geotechnical Laboratory. Geologist logs are included.

Sweeney, M. D. 1993b. ***Site Characterization Report for the Liquid Effluent Retention Facility.*** **WHC-SD-EN-EV-024, Westinghouse Hanford Company, Richland, Washington**. The report contains qualitative x-ray diffraction analyses of 20 Hanford and Ringold formation samples and 14 XRF analyses of Ringold Formation samples from boreholes. The analyses were done by Washington State University.

Sweeney, M. D. 1994. ***Soil Properties Data for the Liquid Effluent Retention Facility.*** **WHC-SD-EN-DP-084, Westinghouse Hanford Company, Richland, Washington**. The document summarizes the calcium carbonate, sieve, and hydrometer data for four RCRA wells at the LERF. The information supplements WHC 1990. *Borehole Completion Data Package for the Liquid Effluent Retention Facility*, WHC-MR-0235, Westinghouse Hanford Company, Richland, Washington.

Sweeney, M. D., D. J. Alexander, S. D. Evelo, K. A. Lindsey, V. M. Johnson, and K. M. Singleton. 1995. ***Groundwater Impact Assessment Report for the 216-T-1 Ditch.*** **WHC-EP-0814, Westinghouse Hanford Company, Richland, Washington**. The report contains average results of analysis for metals in sediment from three test pits and one metal analyses of sediment in one groundwater well (split spoons).

Tallman, A. M., K. R. Fecht, M. C. Marratt, and G. V. Last. 1979. ***Geology of the Separation Areas, Hanford Site, South-Central Washington.*** **RHO-ST-23, Rockwell Hanford Operations, Richland, Washington**. This report presents the results of 50 qualitative x-ray diffraction analyses of various size fractions, 44 microprobe analyses, and percent basalt by size fraction from samples throughout 200 East and 200 West. All sedimentary formations are represented. Dr. Lloyd Ames of Pacific Northwest Laboratory did the x-ray and microprobe analyses.

Teel S. S. 1990. ***Grout Treatment Facility Borehole Completion Report for 1989.*** **WHC-MR-0203, Westinghouse Hanford Company, Richland, Washington**.

Valenta, M. M., J. R. Moreno, M. B. Martin, R. E. Ferri, D. G. Horton, and S. P. Reidel. 2000. ***Particle Size Distribution Data From Existing Boreholes at the Immobilized Low-Activity Waste Site.*** **PNNL-13328, Pacific Northwest National Laboratory, Richland, Washington**. The report contains results of 79 particle size analyses from four boreholes in south-central 200 East Area. Analyses were done in the laboratories in the 3720 Building using PNNL Technical Procedure SA-2 (PNL-MA-567).

Vermeul, V. R., S. S. Teel, J. E. Amonette, C. R. Cole, J. S. Fruchter, Y. A. Gorby, F. A. Spane, J. E. Szecsody, M. D. Williams, and S. B. Yabusaki. 1995. ***Geologic, Geochemical, Microbiologic, and Hydrologic Characterization at the In Situ Redox Manipulation Test Site.*** **PNL-10633, Pacific Northwest Laboratory, Richland, Washington**.

Webster, C. T. 1977. ***Ringold Identification Correlation, and Sampling Program: Well History DH-11 -12 -13 -13A -14 -15 -16 -17 (Continuation of ARH-C-14).*** **RHO-LD-34, Rockwell Hanford Operations, Richland, Washington**. This report gives drill logs and core records (brief lithologic descriptions for eight wells.

Weekes, D. C., S. P. Luttrell, and M. R. Fuchs. 1987. ***Interim Hydrogeologic Characterization Report and Groundwater Monitoring System for the Nonradioactive Dangerous Waste Landfill, Hanford Site, Washington.*** **WHC-EP-0021, Westinghouse Hanford Company, Richland, Washington**. The report soil moisture content for samples from ten wells. Analyses were done by Shannon and Wilson Inc. using procedure ASTM D-2216. Lithologic logs are included.

Weekes, D. C. and L. R. Glaman. 1995. ***FY95 Site Characterization Status Report and Data Package for the Carbon Tetrachloride Site.*** **BHI-00399, Bechtel Hanford Inc., Richland, Washington**. The report contains some particle size distribution data from four boreholes, particle density and porosity from three boreholes and VOA, moisture content and calcium carbonate content from one borehole.

Weekes, D. C., G. K. Jaeger, and B. H. Ford. 1995. ***Preoperational Baseline and Site Characterization Report for the Environmental Restoration Disposal Facility.*** **BHI-00270, Bechtel Hanford, Inc., Richland, Washington**. The report gives the results of moisture content (ASTM D-2216-90), calcium carbonate content (ASTM D-4373-84), particle size distribution (ASTM D-422-63), porosity (ASTM D-698-78 and ASTM D-1557-78), specific gravity (ASTM D-854-83, ASTM C-117-87, ASTM C-127-84, and ASTM C-128-84), and bulk density (ASTM D-698-78 and ASTM D-1557-78) from samples obtained from several wells at the ERDF sight. Geologist's logs are also given. Analyses were done by the Westinghouse Hanford Company's Geotechnical Laboratory.

Williams, B. A. 1992. ***Borehole Completion Data Package for DOE 216-S-10 Facility, CY 1991.*** **WHC-SD-EN-DP-045, Westinghouse Hanford Company, Richland, Washington**. The report gives geologist's logs, moisture content, and calcium carbonate content of samples from three new RCRA groundwater monitoring wells. The data were generated by the Westinghouse Hanford Company's Environmental Technology Analytical Laboratory.

Williams, B. A. and D. B. Barnett. 1993. ***Borehole Completion Package for the 216-S-10 Facility CY 1992.*** **WHC-SD-EN-DP-052, Westinghouse Hanford Company, Richland, Washington**. The report contains calcium carbonate content (procedure GEL-19) and moisture content (procedure GEL-14) data from one new RCRA well.

Williams, M. D., V. R. Vermeul, J. E. Szecsody, and J. S. Fruchter. 2000. ***100-D Area In Situ Redox Treatability Test for Chromate-Contaminated Groundwater.*** **PNNL-13349, Pacific Northwest National Laboratory, Richland, Washington**.

Wright, J., J. L. Conca, and X. Chen. 1994. ***Hydrostratigraphy and Recharge Distributions from Direct Measurement of Hydraulic Conductivity Using the UFA Method.*** **PNL-9424, Pacific Northwest Laboratory, Richland, Washington**. The report gives measurements of particle size distribution and mineral composition for 50 arid soil and sediment samples from former waste disposal sites at Hanford, Washington.

Wright, J. V., J. L. Conca, P. P. Didzerekis, T. J. Mockler, and K. D. Shields. 1995. ***VOC-Arid Site Integrated Demonstration, R&D Characterization and Monitoring Technologies, Subtask 3 Milestone Report, Final Report of the UFA Technology for Vadose Zone Transport Measurements.*** **Unpublished report**. The report contains the results of four analyses of particle size distribution and mineralogy by XRD from boreholes 299-W18-174 and 299-W18-96. See George V. Last for data.

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