

2021 Annual Groundwater Monitoring and Corrective Action Summary Report

Intermountain Generating Facility
Delta, Utah



Prepared for:

Intermountain Power Service Corporation
850 West Brush Wellman Road
Delta, Utah 84624

Prepared by:

Stantec Consulting Services, Inc.
2890 East Cottonwood Parkway Suite 300
Salt Lake City UT 84121-7283

Project No.: 203709098

January 20, 2022

Sign-off Sheet and Signatures of Environmental Professionals

This document was prepared by Stantec Consulting Services Inc. ("Stantec") for Intermountain Power Service Corporation (the "Client"). The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by:



John G. Russell, III, CPG
Utah PG #5216074-2250
Sr. Hydrogeologist, Environmental Risk Manager



Reviewed by:



David P. Grills, Jr., P.E.
Sr. Engineer

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

Table of Contents

1.0	EXECUTIVE SUMMARY	1.1
1.1	PURPOSE OF THIS REPORT	1.1
1.2	BACKGROUND	1.2
2.0	SPRING AND FALL 2021 MONITORING ACTIVITIES	2.1
2.1	MONITORING, PURGING, AND SAMPLING PROTOCOL	2.1
2.2	ANALYTICAL RESULTS	2.1
2.2.1	TDS Results	2.1
2.2.2	CCR Appendix IV Results	2.2
3.0	ONGOING CORRECTIVE ACTIONS AND PROGRESS TOWARD INSTALLING EXPANDED GROUNDWATER CORRECTIVE ACTION REMEDY	3.1
3.1	ONGOING GROUNDWATER RECOVERY AT EXISTING RECOVERY WELLS WR- 101, WR-102, AND WR-103	3.1
3.2	FINAL DESIGN AND INSTALLATION OF SELECTED GROUNDWATER REMEDY	3.1

LIST OF FIGURES

Figure 1 General Site Location Map
Figure 2 CCR Unit Location Map
Figure 3A April 2021 Groundwater Flow Map
Figure 3B October 2021 Groundwater Flow Map
Figure 4A April 2021 TDS Concentrations Map
Figure 4B October 2021 TDS Concentrations Map
Figure 5 October 2021 TDS 1,100 mg/L Iso-Concentration Map

LIST OF TABLES

Table 1 Groundwater Monitoring Well Construction Details

LIST OF ATTACHMENTS

ATTACHMENT 1 DRILLING LOGS AND WELL SCHEMATIC DIAGRAMS
ATTACHMENT 2 TABULATED GROUND WATER LEVEL DATA
ATTACHMENT 3 TABULATED GROUND WATER MONITORING DATA

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

EXECUTIVE SUMMARY

January 20, 2022

1.0 EXECUTIVE SUMMARY

1.1 PURPOSE OF THIS REPORT

On behalf of Intermountain Power Service Corporation (“IPSC”), Stantec Consulting Services Inc. (“Stantec”) has prepared this report to summarize IPSC’s 2021 groundwater monitoring and recovery program pursuant to the United States Environmental Protection Agency’s (“US EPA”) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities, 40 CFR 257 Subpart D (the “Federal CCR Rule”)(and the corresponding Utah CCR Rule at Utah Admin. Code R315-319 (the “State CCR Rule”)(collectively, the “CCR Rules”)) at IPSC’s Intermountain Generating Facility (“IGF”) located approximately ten miles north of Delta, Millard County, Utah. IPSC’s compliance program addresses elements prescribed by CCR Rule Parts §257.90 (R315-319-90) Applicability; §257.91 (R315-319-91) Groundwater Monitoring Systems; §257.93 (R315-319-93) Groundwater Sampling and Analysis Requirements; §257.95 (R315-319-95) Assessment Monitoring Program; and §257.96 (R315-319-96) Assessment of Corrective Measures.

IPSC historical reports presented IPSC’s approach for addressing requirements specified by the CCR Rules as well as the facility’s Utah Department of Environmental Quality (“UDEQ”), Division of Water Quality (“DWQ”) Groundwater Discharge Permit No. UGW270004. The UDEQ Division of Waste Management and Radiation Control (“DWMRC”) also has regulatory oversight pursuant to the State CCR Rule, under which DWMRC issued a separate permit on November 23, 2020 for the CCR Units, Permit No. 1601. The CCR Rules apply to each of IPSC’s three (3) CCR units (reference Figures 1 and 2 for regional and site-specific, location maps):

- Combustion By-Products Landfill (“CB Landfill”),
- Bottom Ash Basin [surface impoundment underlain by 80-mil High Density Polyethylene (HDPE) liner], and
- Waste Water Basin (surface impoundment underlain by 80-mil HDPE liner).

This annual summary report is formatted in general accordance with reporting requisites prescribed within §257.90(e) (R315-319-90(e)). The report provides an overview of groundwater monitoring and recovery activities conducted at the site during 2021 and ongoing activities designed to further assess and design corrective measures specified by IPSC’s Groundwater Discharge Permit and the CCR Rules, as outlined in detail within IPSC’s June 2021 *Spring 2021 Groundwater Monitoring Update Report* and June 2021 *Selection of Remedy Report*.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

EXECUTIVE SUMMARY

January 20, 2022

1.2 BACKGROUND

The DWQ has regulatory oversight for IPSC's compliance with its Groundwater Discharge Permit, which prescribes operation, monitoring, maintenance, and corrective measure protocols for the Bottom Ash Basin and the Waste Water Basin. As detailed in historical reports, the DWQ and IPSC agreed that IPSC would implement a phased groundwater investigation and recovery program that focused initially on removal of Total Dissolved Solids (TDS)-impacted groundwater located downgradient of, and in relatively-close proximity to, the Bottom Ash Basin. IPSC's DWQ permit action level for TDS is 1,100 milligrams per liter (mg/L; i.e. parts per million-ppm). Groundwater recovery wells WR-101, WR-102, and WR-103 have been used since 2010 for recovery of TDS-impacted groundwater as part of IPSC's Groundwater Discharge Permit compliance program (reference Figure 3 for well locations).

The DWQ and IPSC agreed that additional groundwater monitoring wells, including sampling and pump-testing of wells associated with CCR Rule compliance, would be installed to help delineate more precisely the location and hydraulic characteristics of the downgradient leading edge of the TDS plume located southwest of the Bottom Ash Basin. Following delineation of the downgradient leading edge of the TDS plume, then IPSC would evaluate how best to control the downgradient migration of the plume, remediate the plume to permit standards, and ensure ongoing protection to human health and the environment.

Once IPSC's groundwater quality monitoring program expanded under its CCR permit, IPSC identified that TDS had also impacted groundwater quality downgradient of the Waste Water Basin. As has been consistent since monitoring of water quality began at the IGF, TDS has been found to have migrated farther downgradient of the two basins than any other Groundwater Discharge Permit or CCR water quality analyte, including CCR Appendix IV metals. As such, TDS is being used as the leading indicator parameter of impacted groundwater quality for fashioning a more expansive groundwater remediation program. No supplemental wells were deemed necessary downgradient of the Combustion By-Products Landfill, as all CCR constituent concentrations quantified to date represent typical background concentrations.

During 2020, as part of its corrective measure assessment, IPSC installed 25 wells to more definitively delineate the downgradient leading edges of TDS plumes located downgradient (southwest) of the Bottom Ash Basin and the Waste Water Basin. Several of the wells were pump-tested to investigate localized hydraulic characteristics. To date, IPSC has installed 84 groundwater monitoring wells as part of DWQ and DWMRC regulatory compliance and investigation of the downgradient leading edges of the TDS plumes.

Stantec utilized the 2020 pump-test results and October 2020 groundwater quality data to update its site-specific groundwater fate and transport model. The model was used to help identify which wells might be used for groundwater recovery to help reduce total mass of CCR constituents in groundwater and control the downgradient migration of such constituents.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

EXECUTIVE SUMMARY

January 20, 2022

Final selection and design of the expanded groundwater remedy was documented in IPSC/Stantec's June 2021 *Selection of Remedy Report*. IPSC and Stantec finalized design for planned expansion of IPSC's existing groundwater recovery network by increasing the number of wells being used for groundwater recovery to help reduce total mass of CCR constituents in groundwater in pursuit of achieving Groundwater Protection Standards, control the downgradient migration of such constituents, and provide ongoing protection to human health and the environment.

Currently, IPSC is purchasing groundwater recovery pumps and related equipment for installation of the expanded groundwater recovery network. As additional groundwater quality data is generated and evaluated through statistical analysis, IPSC is prepared to further expand and/or enhance the groundwater monitoring and/or remedial approach, if warranted. Currently, and for the foreseeable future, the CCR constituent plumes downgradient of the two surface impoundments do not pose any unmitigated risk to human health, ecologic receptors, and/or the environment.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

SPRING AND FALL 2021 MONITORING ACTIVITIES
January 20, 2022

2.0 SPRING AND FALL 2021 MONITORING ACTIVITIES

2.1 MONITORING, PURGING, AND SAMPLING PROTOCOL

During each of the two sampling events conducted respectively during April and October 2021, all CCR compliance wells were purged and sampled, following measurement of static water levels. All water level monitoring and well purging and sampling activities were performed in accordance with measures outlined within IPSC's November 2015 *Ground Water Sampling and Analysis Plan*, a copy of which is posted on IPSC's public website. Groundwater samples were submitted to American West Analytical Laboratories, Inc. (AWAL), a Utah-certified, analytical laboratory under strict Chain-of-Custody protocol.

Figures 3A and 3B present potentiometric maps based on water level measurements collected at CCR monitoring wells during April and October 2021. Groundwater potentiometric and apparent flow direction characteristics remain relatively similar to those observed historically. The predominant groundwater flow direction in relatively close proximity to the Bottom Ash Basin and the Waste Water Basin is generally toward the southwest, with a more westerly component of flow due west of the northwestern corner of the Waste Water Basin. Groundwater flow in the vicinity of the CB Landfill is generally from the east toward the west.

Table 1 presents groundwater monitoring well construction details, including well completion dates, diameters, depths, screened intervals, and top of casing elevations (mean sea level-msl). Attachment 1 presents monitoring well drilling logs and schematic diagrams. Attachment 2 includes summaries of historical water level measurements including the April and October 2021 data.

2.2 ANALYTICAL RESULTS

2.2.1 TDS Results

Figures 4A and 4B herein identify TDS concentrations quantified during the April and October 2021 sampling events, superimposed atop the respective Spring and Fall 2021 groundwater flow potentiometric maps. Figure 5 presents Stantec's generalized estimation of the locations of the October 2021 1,100 ppm TDS iso-concentration lines, the action level for TDS prescribed by IPSC's Groundwater Discharge Permit. Attachment 3 is a tabulation of all historical groundwater monitoring analytical results to date.

As observed in the past, groundwater quality monitoring data at the boundaries and down-gradient of the CB Landfill are deemed representative of Background water quality conditions. The quantitative analytical results associated with monitoring of the two surface impoundments are relatively similar to those observed during past monitoring events.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

SPRING AND FALL 2021 MONITORING ACTIVITIES
January 20, 2022

2.2.2 CCR Appendix IV Results

Stantec's comparative analysis of the Spring and Fall 2021 water quality data with preceding data indicates similar CCR Appendix IV metal concentrations. As reported in IPSC's 2020 *Annual Groundwater Monitoring and Corrective Action Summary Report* (dated January 2021), the quantitative analytical results associated with monitoring under the CCR Rule indicated the below-tabulated Appendix IV constituent/well pairs that represented Statistically Significant Levels (SSLs) above their respective Groundwater Protection Standards (GWPSs). There have been no SSL exceedances associated with the CB Landfill to date.

CCR Appendix IV SSLs in excess of GWPSs			
CCR Unit	Constituent/Well Pair	Lower Confidence Limit/Lower Confidence Band (LCL/LCB)	GWPS
CB Landfill	No SSLs above GWPS		
Bottom Ash Basin	Arsenic/BAC-2	0.059 mg/L	0.0362 mg/L
	Lithium/BAC-3	0.930 mg/L	0.4564 mg/L
	Molybdenum/BAC-2	0.156 mg/L	0.1 mg/L
Waste Water Basin	Arsenic/WWC-1	0.0219 mg/L	0.01338 mg/L
	Arsenic/WWC-2	0.0148 mg/L	
	Arsenic/WWC-3	0.0218 mg/L	
	Arsenic/WWC-4	0.0142 mg/L	
	Arsenic/WWC-5	0.0146 mg/L	
	Lithium/WWC-1	0.867 mg/L	0.587 mg/L

Although it is documented throughout Utah and in proximity to the site that Arsenic and Lithium can be present naturally in soil and groundwater at elevated concentrations, IPSC will continue monitoring these and other CCR Rule metal constituents in groundwater as part of its routine groundwater monitoring program. It is documented that basin-fill aquifers in Utah (including Lake Bonneville sediments similar to those underlying the IGF) and throughout the western United States can contain elevated concentrations of naturally occurring Arsenic and Lithium attributable to volcanic rock source material and lacustrine and hot spring deposits. For instance, the Baker Hot Springs and the adjacent 9-mile by 6-mile Fumarole Butte/Crater Bench topographic features are located approximately 6-miles northwest of the IGF. Moreover, naturally occurring concentrations of both Arsenic and Lithium can vary considerably across short, lateral distances within topsoil, subsurface soil, and aquifers, as a result of localized hydrogeologic, geochemical, and mineralogic characteristics.

Current water quality data indicate that only three CCR Appendix IV metals exceed corollary GWPSs in monitoring and/or recovery wells located at the basin boundaries of the two surface impoundments. If the metals concentrations were attributable to localized release of CCR constituents from the CCR impoundments (i.e., anthropogenic presence), it is anticipated that the rate of vertical migration of released CCR metal constituents beneath the basins into the unsaturated, vadose zone above the water table has been historically, and will continue to be, retarded (decelerated) as a direct result of physical retardation atop the low-permeability clays

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

SPRING AND FALL 2021 MONITORING ACTIVITIES
January 20, 2022

as well as natural adsorption and cationic exchange within the porous, clay-rich soils. Likewise, given the relatively thick and impermeable clay-rich soils located below the water table (saturated, phreatic zone), it is anticipated that similar retardation of metals is likely, historically and in the future.

Typically, TDS tends to migrate at the same rate as the average linear groundwater flow velocity; however, Appendix IV metal constituents, such as Arsenic, Molybdenum, and Lithium, are not anticipated to migrate at the same velocity as natural groundwater given the clay-rich nature of the uppermost aquifer beneath the site. Natural attenuation processes, such as adsorption, cationic exchange, dispersion, and biological degradation, tend to slow the lateral (saturated, phreatic zone) movement of metals in clay-rich aquifers. Accordingly, IPSC intends to continue to utilize TDS as a leading indicator parameter of impacted groundwater quality at the site.

As additional groundwater quality data is generated, CCR constituent concentrations will be evaluated through statistical analysis, in accordance with CCR Rule . Ongoing/future water quality data will be evaluated to determine whether additional monitoring and/or recovery wells might be warranted for appropriate CCR constituent-impacted groundwater control and remediation.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

ONGOING CORRECTIVE ACTIONS AND PROGRESS TOWARD INSTALLING EXPANDED GROUNDWATER
CORRECTIVE ACTION REMEDY
January 20, 2022

3.0 ONGOING CORRECTIVE ACTIONS AND PROGRESS TOWARD INSTALLING EXPANDED GROUNDWATER CORRECTIVE ACTION REMEDY

3.1 ONGOING GROUNDWATER RECOVERY AT EXISTING RECOVERY WELLS WR-101, WR-102, AND WR-103

IPSC intends to continue operation of existing groundwater recovery wells WR-101, WR-102, and WR-103. The three wells are recovering TDS-impacted groundwater from the generalized middle of the estimated TDS plume that is migrating southwest of the Bottom Ash Basin. Continued removal of TDS-impacted groundwater from each of these three wells is helping reduce the total mass of CCR constituents in the uppermost aquifer beneath areas of the site located downgradient of, and in close proximity to, the Bottom Ash Basin.

3.2 FINAL DESIGN AND INSTALLATION OF SELECTED GROUNDWATER REMEDY

Final selection and design of the expanded groundwater corrective action remedy was documented in IPSC/Stantec's June 2021 *Selection of Remedy Report*. The report provided detailed analysis of the extent and nature of impacted groundwater associated with the surface impoundments, a summary of corrective measures assessment, and evaluation of the selected remedy in terms of short- and long-term effectiveness and appropriate protection to human health and the environment.

Groundwater quality data to date, including the October 2021 results, indicate that TDS has migrated farther down-gradient of the two surface impoundments than other CCR constituents, including Appendix IV metals. As discussed in detail in IPSC's November 2020 *Demonstration of Requirements for Alternative Closure Deadline under 40 C.F.R. §257.103(f)(2) Report* and IPSC's November 2020 *Amended Assessment of Corrective Measures* report, IPSC and Stantec anticipate that recovery of TDS-impacted groundwater at select recovery wells will also intercept metal constituents that might be present, as TDS is expected to continue to migrate at a faster rate than dissolved metals in the clay-rich aquifer that underlies the property.

At this time, IPSC intends to use the following wells for groundwater recovery and plume control:

- Bottom Ash Basin Plume Control:
wells WR-101, WR-102, WR-103, RW-9, BAC-11, BAC-13, BAC-14 and BAC-18 through BAC-38.
- Waste Water Basin Plume Control:
wells: WWC-1, WWC-4, WWC-5, RW-4, WWC-6, and WWC-8 through WWC-17 (excluding WWC-10).

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

ONGOING CORRECTIVE ACTIONS AND PROGRESS TOWARD INSTALLING EXPANDED GROUNDWATER CORRECTIVE ACTION REMEDY

January 20, 2022

In summary, groundwater will be recovered by means of dedicated, submersible pumps in recovery wells, as being implemented currently at existing recovery wells WR-101, WR-102, and WR-103. Each wellhead will be interconnected with a buried trunkline that will discharge recovered groundwater to the 80-mil, HDPE-lined Ash Recycle Basin located immediately south of the Bottom Ash Basin. The recovery network will be integrated with the existing recovery system and include all necessary equipment and appurtenances to transfer recovered groundwater from the wells to the Ash Recycle Basin and permit future monitoring and sampling of all the recovery wells.

As detailed in IPSC's *Selection of Remedy Report*, Stantec provided engineering and design services to IPSC for enhanced TDS plume control and associated groundwater recovery. Design elements included, for instance:

- Final basis of design;
- Process flow diagram supported by a hydraulic pumping and conveyance model;
- Piping and instrumentation (P&ID) drawings;
- Typical recovery well completion detail.
- Finalized hydraulic model of the pumping and conveyance system;
- Typical design details for the recovery wells and surface completions;
- Underground yard piping;
- Control philosophy for the system;
- Electrical single-line and termination drawings; and
- Equipment and construction specifications.

Currently, IPSC is purchasing equipment associated with the proposed expansion of the existing groundwater recovery well network that will include an additional 37 groundwater recovery wells and recovered water conveyance piping. IPSC is also providing additional localized, electrical power supply to service the new submersible pumps and water conveyance and monitoring appurtenances. IPSC anticipates installing all such supplemental equipment and materials as soon as practicable.

As detailed in IPSC's November 2020 *Demonstration of Requirements for Alternative Closure Deadline under 40 C.F.R. §257.103(f)(2) Report*, the CCR constituent plumes pose no unmitigated risk to on- and off-site human health. Given the vast real property acreage (4,614-acres) that is owned by the owner of the IGF, Intermountain Power Agency (IPA), as well as the relatively significant distances to off-site potential receptors who might use groundwater for potable



2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

ONGOING CORRECTIVE ACTIONS AND PROGRESS TOWARD INSTALLING EXPANDED GROUNDWATER
CORRECTIVE ACTION REMEDY

January 20, 2022

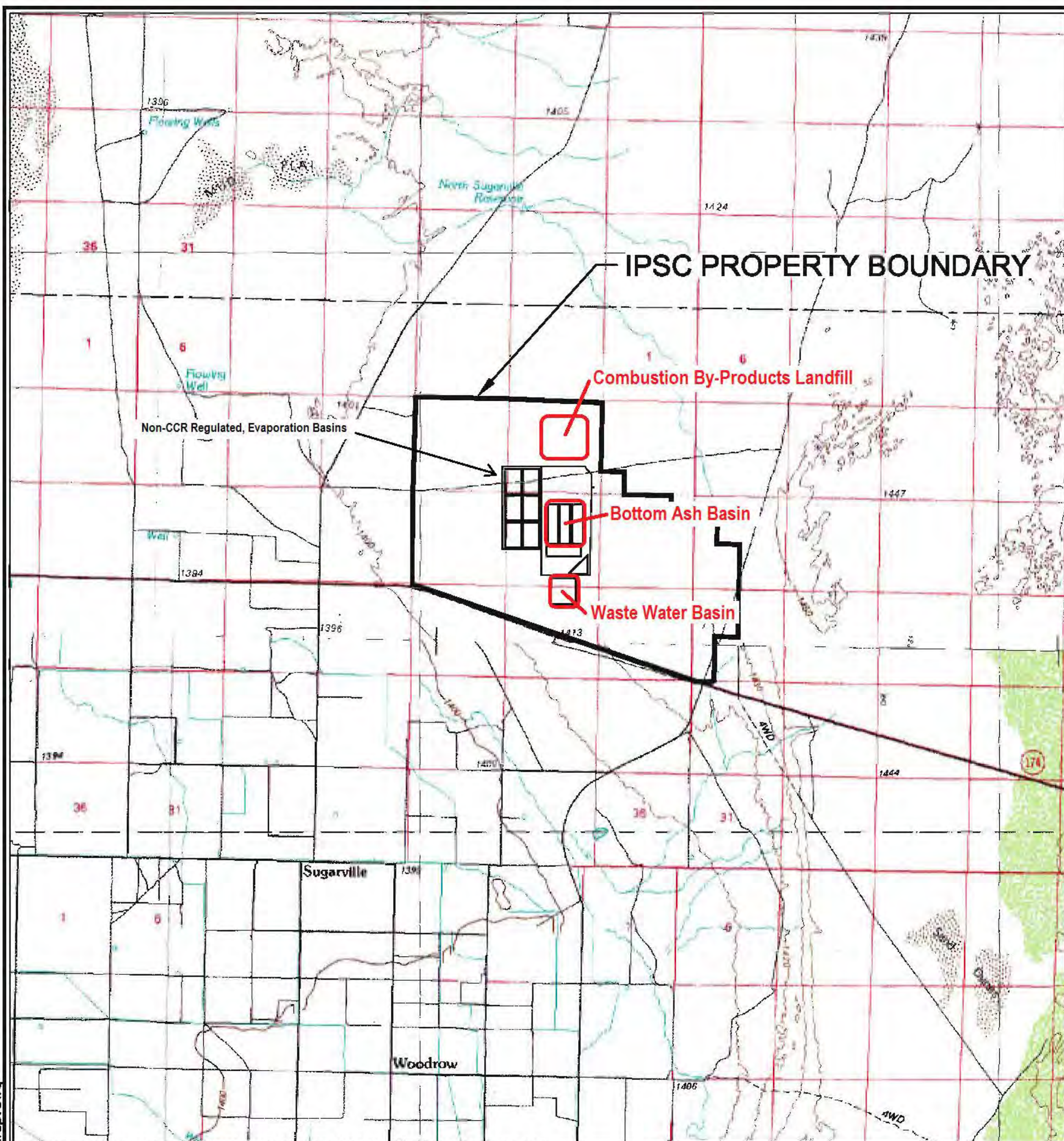
and/or non-potable uses (approximately 2.5-miles away), IPSC anticipates that it can implement supplemental plume control measures so as to mitigate any such future potential exposures in a prompt and timely manner.

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

Figure 1 General Site Location Map

drawings\ipsc-04\Fig2 Site Topographic Map.dwg



BASE FROM USGS 1:100,000 SCALE METRIC TOPOGRAPHIC MAPS: LYNNDAI, UTAH, 1979
AND DELTA, UTAH, 1989.



CCR-Regulated Units
DELTA, UTAH

FIGURE 1
SITE TOPOGRAPHIC MAP



DESIGN BY JR DRAWN BY CP CH'D BY SCALE 1"=1000'

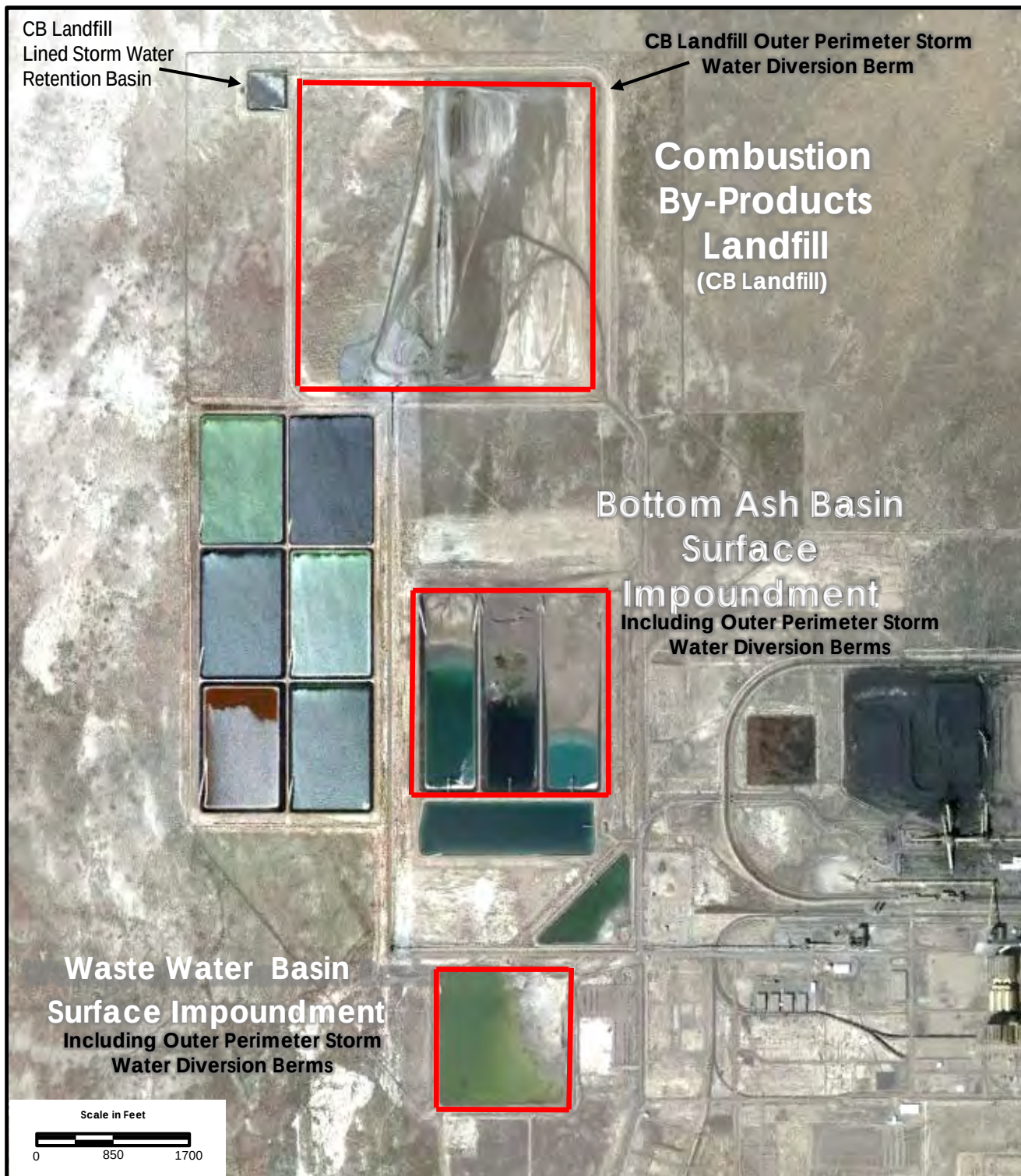
DATE DRAWN 1-26-17

REVISION

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

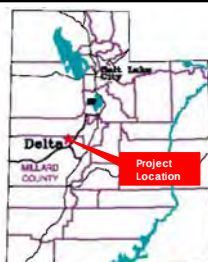
January 2022

Figure 2. CCR Units Location Map



Legend

CCR Unit



INTERMOUNTAIN GENERATING FACILITY

FIGURE 2
Site-Specific Location Map



DRAWN BY	JR	DATE DRAWN	9/30/2016
SCALE	1 in. approx. 1700 ft.		
PROJECT	203709098.409		

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

Figures 3A and 3B. April and October 2021 Groundwater Potentiometric Maps

C:\Users\ckwiatkowski\Desktop\203709098 InterMountain Power\GIS\2021_05\fig06_Spring2021GWE_DeltaUT_20210505_11x17.mxd

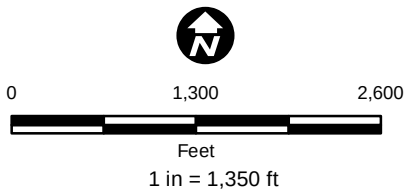


LEGEND:

-  MONITORING WELL
- 4577.22 GROUNDWATER ELEVATION (FT)
-  INFERRED GROUNDWATER CONTOUR

NOTE:

- 1) DATA COLLECTED APRIL 2020
- 2) ALL ELEVATIONS ARE FEET ABOVE MEAN SEA LEVEL



	FOR: INTERMOUNTAIN POWER SERVICE CORP. INTERMOUNTAIN GENERATION FACILITY DELTA, UTAH		SPRING 2021 POTENTIOMETRIC MAP AND GROUNDWATER FLOW MAP		FIGURE: 3A
	JOB NUMBER: 203709098	DRAWN BY: CK	CHECKED BY: JT	APPROVED BY: JR	DATE: 05/05/21

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

Figures 4A and 4B. April and October 2021 TDS Concentrations Maps

C:\Users\ckwiatkowski\Desktop\203709098 Intermountain Power\GIS\2021_05\fig06_Spring2021GWE_DeltaUT_20210505_11x17.mxd



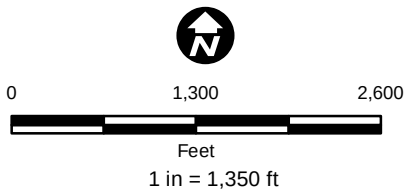
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND:

-  MONITORING WELL
- 1,100 Total Dissolved Solids (TDS) MILLIGRAMS PER LITER (mg/L) NS - Not Sampled
-  GROUNDWATER CONTOUR

NOTE:

- 1) DATA COLLECTED APRIL 2021
- 2) ALL ELEVATIONS ARE FEET ABOVE MEAN SEA LEVEL



		FOR: INTERMOUNTAIN POWER SERVICE CORP. INTERMOUNTAIN GENERATION FACILITY DELTA, UTAH		SPRING 2021 TDS ISOCONCENTRATION MAP		FIGURE: 4A
JOB NUMBER: 203709098	DRAWN BY: CK	CHECKED BY: JT	APPROVED BY: JR	DATE: 05/05/21		

C:\Users\ckwiatkowski\Desktop\203709098 Intermountain Power\GIS\2021_11\fig06_Spring2021GWE_DeltaUT_20210505_11x17.mxd

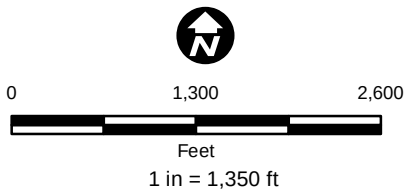


LEGEND:

-  MONITORING WELL
- 700 Total Dissolved Solids (TDS) Concentration (mg/L; i.e., parts per million-ppm)
-  INFERRED GROUNDWATER CONTOUR

NOTE:

- 1) DATA COLLECTED FALL 2021
- 2) ALL ELEVATIONS ARE FEET ABOVE MEAN SEA LEVEL



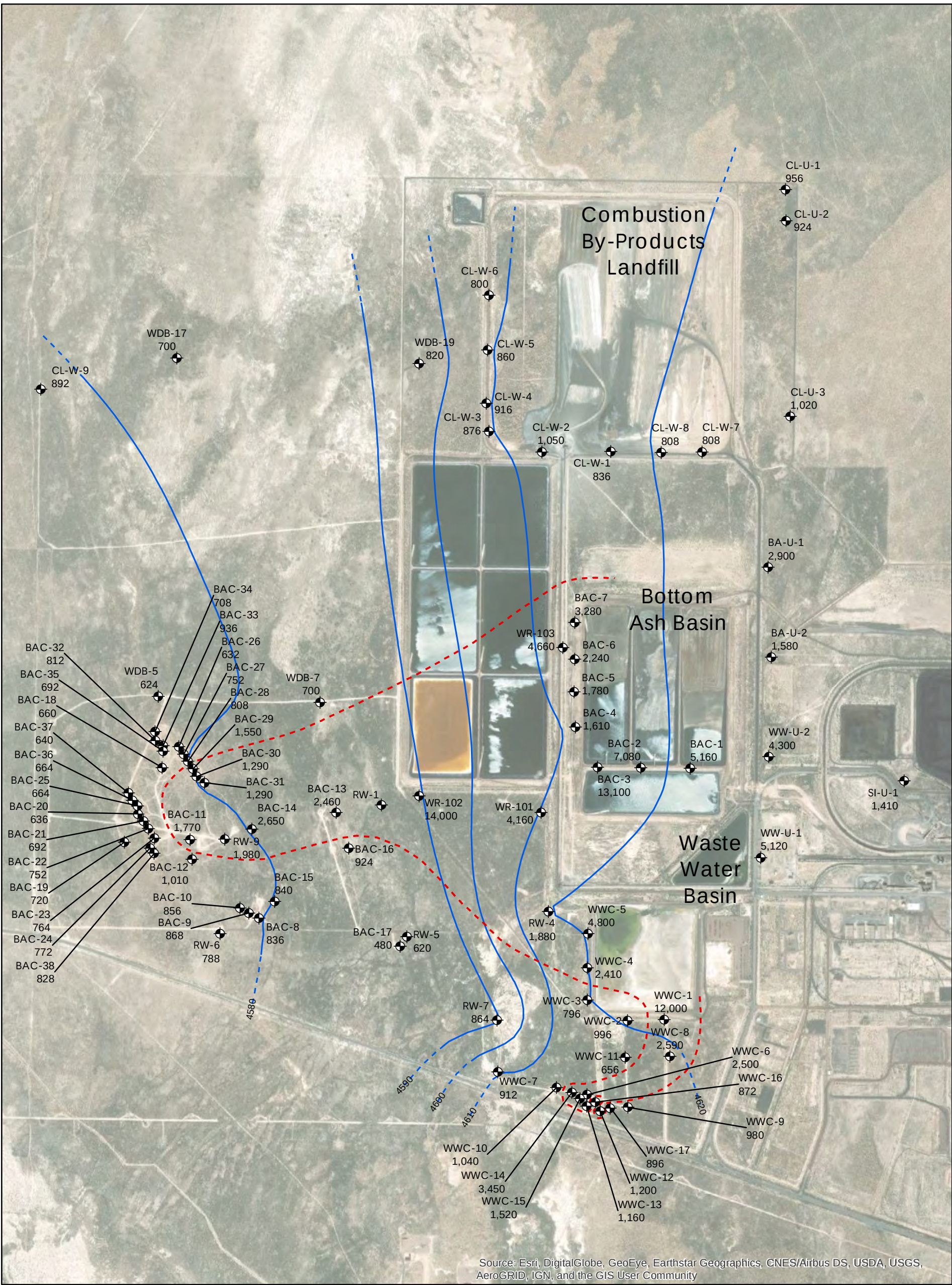
		FOR: INTERMOUNTAIN POWER SERVICE CORP. INTERMOUNTAIN GENERATION FACILITY DELTA, UTAH		FALL 2021 TDS Concentration Map		FIGURE: 4B
JOB NUMBER: 203709098	DRAWN BY: CK	CHECKED BY: JT	APPROVED BY: JR	DATE: 11/29/21		

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

Figure 5 October 2021 TDS 1,100 mg/L Iso-Concentration Map

C:\Users\ckwiatkowski\Desktop\203709098 Intermountain Power\GIS\2021_11\fig05_FallTDS_isoContour_DeltaUT_20211214_11x17.mxd



LEGEND:

-  MONITORING WELL
- 780 TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATION (mg/L; i.e., part per million-ppm)
-  INFERRED GROUNDWATER CONTOUR
-  ESTIMATED 1,100 MG/L TDS ISO-CONCENTRATION LINE

NOTE:

- 1) DATA COLLECTED OCTOBER 2021
- 2) ALL ELEVATIONS ARE FEET ABOVE MEAN SEA LEVEL


0 1,300 2,600
Feet
1 in = 1,350 ft



FOR:
INTERMOUNTAIN POWER SERVICE CORP.
INTERMOUNTAIN GENERATION FACILITY
DELTA, UTAH

JOB NUMBER:
203709098

FOR:

INTERMOUNTAIN POWER SERVICE CORP.
INTERMOUNTAIN GENERATION FACILITY
DELTA, UTAH

JOB NUMBER:
203709098

DRAWN BY:
CK

**TDS ISO-CONCENTRATION MAP
OCTOBER 2021
SUPERIMPOSED ATOP POTENTIOMETRIC
MAP AND GROUNDWATER FLOW MAP**

CHECKED BY:
JT

APPROVED BY:
JR

FIGURE:
5

DATE:
12/15/21

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

TABLE 1 GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS

Table 1
Well Construction Summary
Intermountain Generating Facility
Delta, Utah

MONITOR WELL I.D.	DATE COMPLETED	WELL DIAMETER / MATERIAL	TOTAL DEPTH (feet BGS)	WELL SCREENING INTERVAL (feet BGS)	TOP OF PVC CASING ELEVATION (feet MSL)
Combustion By-Products Landfill Wells					
CLW-1	5/12/2015	4-inch PVC	65	55-65	4653.46
CLW-2	5/14/2015	4-inch PVC	80	70-80	4648.17
CLW-3	5/13/2015	4-inch PVC	80	70-80	4644.03
CLW-4	5/26/2015	4-inch PVC	82	72-82	4642.88
CLW-5	7/27/2015	4-inch PVC	82	72-82	4640.99
CLW-6	7/26/2015	4-inch PVC	88	78-88	4639.63
CLW-7	7/24/2015	4-inch PVC	72	52-72	4659.34
CLW-8	7/24/2015	4-inch PVC	72	62-72	4655.63
CLW-9	3/25/2018	4-inch PVC	97	87-97	4615.615
CL-U-1	7/23/2015	4-inch PVC	80	68-78	4657.48
CL-U-2	7/22/2015	4-inch PVC	80	70-80	4663.48
CL-U-3	3/27/2018	4-inch PVC	77	67-77	4665.367
Bottom Ash Basin Wells					
BAC-1	7/31/2015	4-inch PVC	70	60-70	4668.70
BAC-2	7/29/2015	4-inch PVC	65	55-65	4668.72
BAC-3	7/28/2015	4-inch PVC	72	52-72	4668.84
BAC-4	8/10/2015	4-inch PVC	75	55-75	4649.45
BAC-5	8/9/2015	4-inch PVC	68	58-68	4649.67
BAC-6	8/8/2015	4-inch PVC	65	55-65	4648.15
BAC-7	8/7/2015	4-inch PVC	67	57-68	4650.09
BAC-8	4/29/2019	6-inch PVC	77	52-77	4626.42
BAC-9	5/1/2019	6-inch PVC	77	52-77	4626.27
BAC-10	5/3/2019	6-inch PVC	87	62-87	4626.27
BAC-11	12/7/2019	6-inch PVC	75	50-75	4624.96
BAC-12	12/6/2019	6-inch PVC	78	53-78	4625.055
BAC-13	11/18/2019	6-inch PVC	90	65-90	4629.834
BAC-14	12/4/2019	6-inch PVC	78	53-78	4627.506
BAC-15	12/9/2019	6-inch PVC	75	50-75	4626.494
BAC-16	11/21/2019	6-inch PVC	89	64-89	4630.426

Table 1
Well Construction Summary
Intermountain Generating Facility
Delta, Utah

MONITOR WELL I.D.	DATE COMPLETED	WELL DIAMETER / MATERIAL	TOTAL DEPTH (feet BGS)	WELL SCREENING INTERVAL (feet BGS)	TOP OF PVC CASING ELEVATION (feet MSL)
BAC-17	12/10/2019	6-inch PVC	81	56-81	4629.648
BAC-18	5/8/2020	6-inch PVC	78	53-78	4621.504
BAC-19	5/9/2020	6-inch PVC	78	58-78	4615.62
BAC-20	5/9/202	6-inch PVC	78	53-78	4617.848
BAC-21	5/10/2020	6-inch PVC	88	61-88	4619.625
BAC-22	5/10/2020	6-inch PVC	78	53-78	4619.905
BAC-23	5/11/2020	6-inch PVC	78	53-78	4619.582
BAC-24	5/12/2020	6-inch PVC	76	51-76	4619.207
BAC-25	5/12/2020	6-inch PVC	78	53-78	4619.327
BAC-26	5/13/2020	6-inch PVC	78	53-78	4627.704
BAC-27	5/13/2020	6-inch PVC	78	53-78	4627.355
BAC-28	5/14/2020	6-inch PVC	78	53-78	4625.411
BAC-29	5/15/2020	6-inch PVC	78	53-78	4625.29
BAC-30	5/142020	6-inch PVC	78	53-78	4624.88
BAC-31	5/15/2020	6-inch PVC	78	53-78	4625.024
BAC-32	5/192020	6-inch PVC	78	53-78	4626.583
BAC-33	5/18/2020	6-inch PVC	78	53-78	4626.629
BAC-34	5/21/2020	6-inch PVC	78	53-78	4624.702
BAC-35	5/282020	6-inch PVC	78	53-78	4624.805
BAC-36	5/30/2020	6-inch PVC	78	53-78	4619.231
BAC-37	5/29/2020	6-inch PVC	78	53-78	4618.397
BAC-38	5/31/2020	6-inch PVC	78	53-78	4619.593
BA-U-1	7/24/2015	4-inch PVC	55	45-55	4665.73
BA-U-2	7/25/2015	4-inch PVC	70	60-70	4661.33

Table 1
Well Construction Summary
Intermountain Generating Facility
Delta, Utah

MONITOR WELL I.D.	DATE COMPLETED	WELL DIAMETER / MATERIAL	TOTAL DEPTH (feet BGS)	WELL SCREENING INTERVAL (feet BGS)	TOP OF PVC CASING ELEVATION (feet MSL)
Wastewater Basin Wells					
WWC-1	7/26/2015	4-inch PVC	60	48-58	4644.72
WWC-2	7/27/2015	4-inch PVC	70	60-70	4645.11
WWC-3	7/30/2015	4-inch PVC	65	55-65	4638.90
WWC-4	7/29/2015	4-inch PVC	75	65-75	4640.58
WWC-5	7/28/22015	4-inch PVC	74	64-74	4641.75
WWC-6	3/24/2018	4-inch PVC	87	67-77	4635.945
WWC-7	3/22/2018	4-inch PVC	87	77-87	4630.487
WWC-8	4/25/2019	6-inch PVC	96	71-96	4647.799
WWC-9	4/28/2019	6-inch PVC	87	62-87	4642.58
WWC-10	4/26/2019	6-inch PVC	87	62-87	4633.72
WWC-11	11/16/2019	6-inch PVC	90	65-90	4641.919
WWC-12	11/12/2019	6-inch PVC	90	65-90	4636.661
WWC-13	11/15/2019	6-inch PVC	90	65-90	4635.128
WWC-14	5/6/2020	6-inch PVC	85	60-85	4635.927
WWC-15	5/6/2020	6-inch PVC	88	63-88	4636.864
WWC-16	5/7/2020	6-inch PVC	88	63-88	4635.921
WWC-17	5/8/2020	6-inch PVC	88	63-88	4641.487
SI-U-1	8/12/2015	4-inch PVC	79	69-79	4664.59
WW-U-1	8/11/2015	4-inch PVC	70	60-70	4665.03
WW-U-2	8/11/2015	4-inch PVC	75	65-75	4665.46
Groundwater Discharge Permit Groundwater Recovery Wells					
WR-101	2/11/2007	6-inch PVC	66	46-66	4646.28
WR-102	3/3/2009	6-inch PVC	57	37-57	4637.62
WR-103	3/31/2009	6-inch PVC	55	35-55	4649.82

Below Ground Surface

MSL = Mean Sea Level

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

ATTACHMENT 1 DRILLING LOGS AND WELL SCHEMATIC DIAGRAMS

Boring Logs

IPSC

Delta, Utah

CLW-1

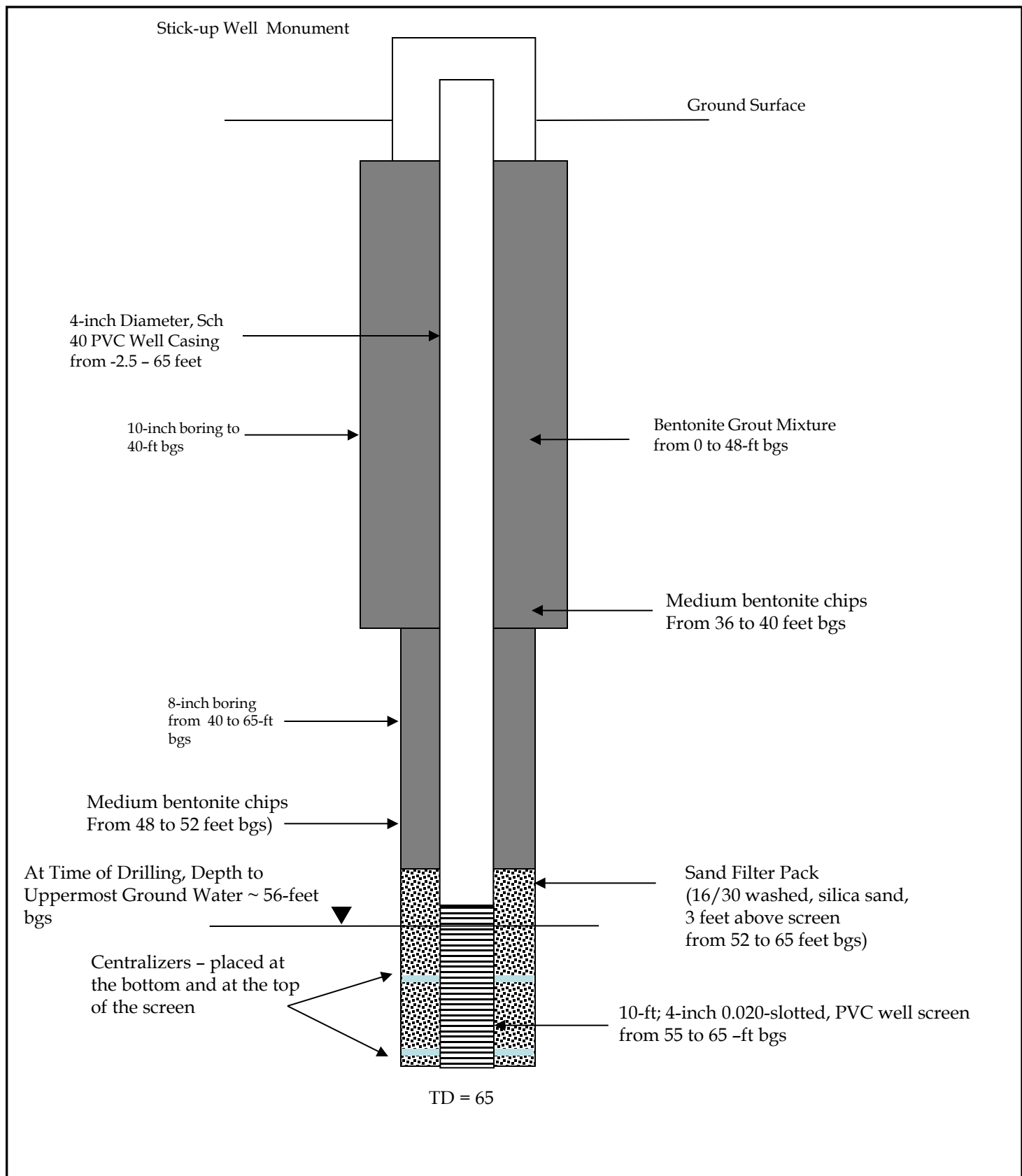
Interval (feet)	Drilling Method	Sample Description
		5/11/2015
0-3	10" Sonic	Brown fine grained Sand with gravel, dry
3-6	10" Sonic	Light to Dark Brown fine to medium grained Sand, no gravel present, dry
6-8	10" Sonic	Light Brown fine grained Sand
8-11.5	10" Sonic	Grayish white fine grained Sand, gravels present, rounded, dry
11.5-13.5	10" Sonic	Tan SILT with clay matrix, slightly moist
13.5-17	10" Sonic	Grayish Tan CLAY with small amount of silt present, slightly moist
17-23	10" Sonic	Grayish Tan SILT with fine grain sand present, trace amounts of clay, slightly moist
23-27	10" Sonic	Tannish Gray CLAY, denser, dry
27-32	10" Sonic	Tan CLAY, slightly moist
32-35	10" Sonic	Tan CLAY, denser material, slightly moist
		5/12/2015
35-48	10" Sonic to 40 feet	Tannish gray CLAY, moist
48-51	8" Sonic	Tannish gray CLAY, moist, softer
51-52	8" Sonic	Orangish, Brown, black fine grained Sand, moist
52-54	8" Sonic	Orangish, Brown , Red CLAY, slightly moist
54-56	8" Sonic	Orangish Brown CLAY with a fine grained sand matrix, slightly moist
56-62	8" Sonic	Light Brown fine grained Sand, saturated
62-63	8" Sonic	Light Brown CLAY, slightly moist
63-63.5	8" Sonic	Fine to medium grained Sand, slightly moist
63.5-64	8" Sonic	Light Brown CLAY, dry to slightly moist
64-65	8" Sonic	Light Brown fine grained Sand with clay matrix, moist

TD = 65; PVC 4-inch screen from 55 to 65; PVC 4-inch riser from -2.5 to 55

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick



Stantec

ISPC- CB LANDFILL AREA
DELTA, UTAH

Figure 1 – CLW-1 Schematic

Design by

Drawn by

Scale

Date Drawn

Last Revision
Date

Boring Logs

IPSC

Delta, Utah

CLW-2

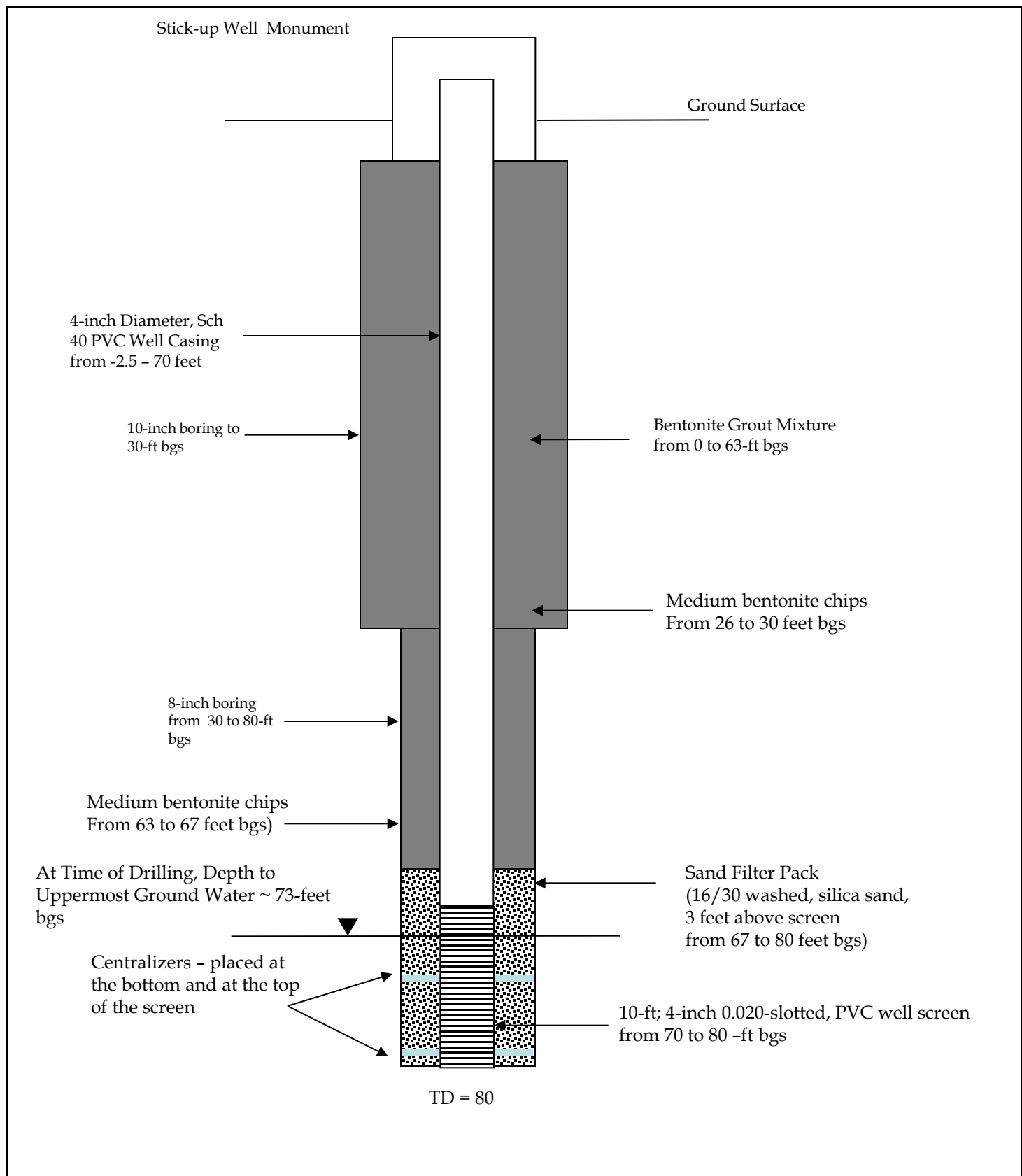
Interval (feet)	Drilling Method	Sample Description
		5/14/2015
0-8	10" Sonic	Brown fine grained Sand, clay present with gravel, dry
8-10	10" Sonic	Light to Dark Brown medium to coarse grained SAND, gravel present, dry
10-17	10" Sonic	Light Brown to Brown clayey SILT, slightly moist
17-25	10" Sonic	Light Brown Silty CLAY, moist
25-46	10" Sonic to 30 feet	Brown CLAY, slightly moist, from 40 to 45 feet transitioned to a Tan to Light Gray color
46-46.5	8" Sonic	Very moist to saturated zone, very soft clay , very sticky
46.5-50	8" Sonic	Light Gray CLAY, moist
50-51	8" Sonic	Tan to Light Gray with Orange zones, CLAY, slightly moist
51-51.5	8" Sonic	Very moist zone, CLAY
62	8" Sonic	Transitioning to a Orangish Red CLAY, Slightly moist
66-66.5	8" Sonic	Moist zone, transitioning from an Orangish Red to a Brown CLAY
66.5-73	8" Sonic	Reddish brown fine grained Sand with a clay matrix, very moist
73-80	8" Sonic	Brown fine gained Sand, trace amounts of clay, saturated.

TD = 80; PVC 4-inch screen from 70 to 80; PVC 4-inch riser from -2.5 to 70

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick



Stantec

ISPC- CB LANDFILL AREA
DELTA, UTAH

Figure 1 – CLW-2 Schematic

Design by

Drawn by

Scale

Date Drawn

Last Revision
Date

Boring Logs

IPSC

Delta, Utah

CLW-3

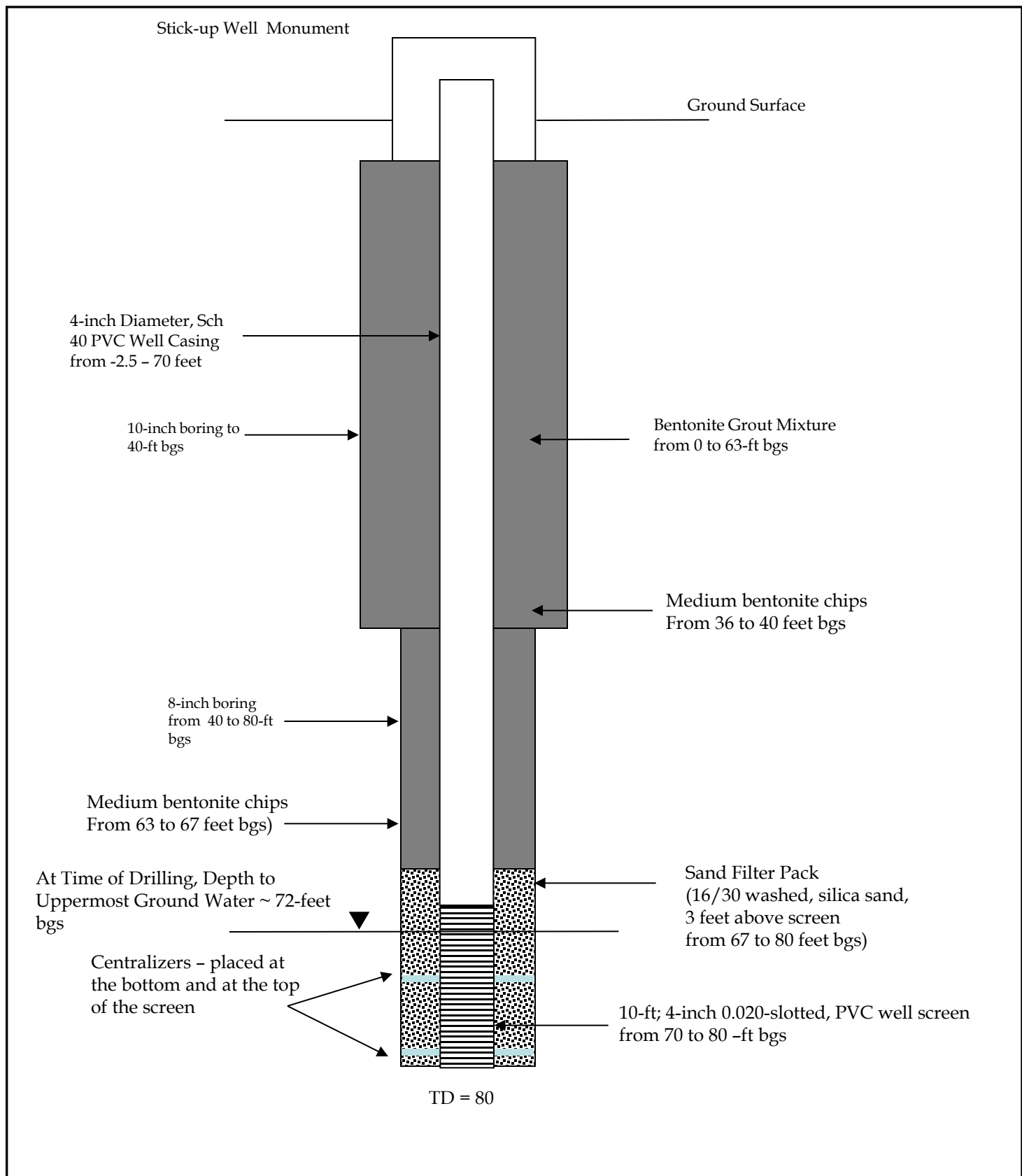
Interval (feet)	Drilling Method	Drill Time	Sample Description
			5/13/2015
0-3	10" Sonic		Brown fine grained Sand , clay present with gravel, dry
3-6	10" Sonic		Light to Dark Brown fine to medium grained Sand, no gravel present, dry
6-11	10" Sonic		Grayish White fine grained Sand, gravels present, rounded, dry
11-13	10" Sonic		Brownish Orange SILT, with fine grained sand present, soft
13-16	10" Sonic		Tannish Gray SILT with a clay present, very moist, sticky
16-21	10" Sonic		Tannish Gray SILT with a clay matrix, very moist, sticky
21-24	10" Sonic		Light Gray CLAY, with silt present, very moist
24-33	10" Sonic		Light Gray to Orange CLAY, with silt present, slightly moist
32-40	10" Sonic to 40 feet		Tan CLAY, denser material, slightly moist
40-66	8" Sonic		Tan to Light Brown CLAY, slightly moist to Dry
63	8" Sonic		Transiting into a Darker Gray CLAY, Moist
66-72	8" Sonic		Very moist to saturated, clay very plastic, firm and sticky
72-73	8" Sonic		Dark Gray fine to medium grained Sand, saturated
73-74	8" Sonic		Dark Gray CLAY, sticky firm, very moist
74-80	8" Sonic		Dark Gray fine to medium grained Sand, saturated

TD = 80; PVC 4-inch screen from 70 to 80; PVC 4-inch riser from -2.5 to 70

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick



Stantec	ISPC– CB LANDFILL AREA			Date Drawn
	DELTA, UTAH			Last Revision
	Figure 1 – CLW-3 Schematic			Date
	Design by	Drawn by	Scale	

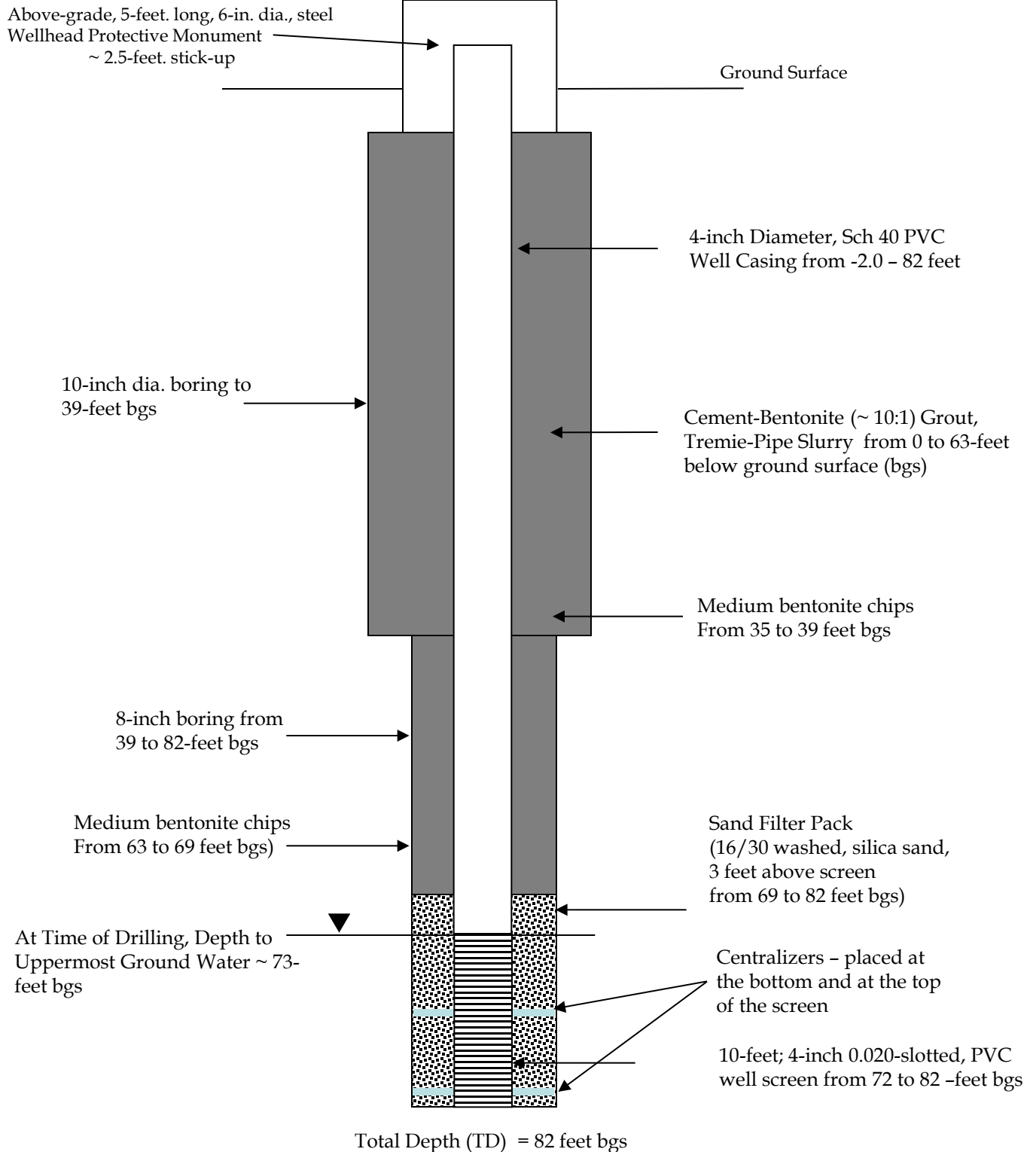
Boring Logs
IPSC
Delta, Utah

CLW-4

Interval (feet)	Drilling Method	Sample Description
		7/24/2015
0-2	10" Sonic	Light Brown fine grained Sands with silts and gravel, dry
2-5	10" Sonic	Light Brown fine grained Sands, dry
5-11	10" Sonic	Light Brown to gray fine grained SAND, dry to slightly moist
11-13	10" Sonic	Light Brown silty CLAY, slightly moist, good plasticity
13-14	10" Sonic	Light Brown fine grained SAND, with clays present, poor plasticity, dry
14-16	10" Sonic	Light Brown clayey SILT, dry
16-18	10" Sonic	Light Brown to Brown silty CLAY, slightly moist, good plasticity
18-21	10" Sonic	Light Brown to Gray silty CLAY, slightly moist to moist, good plasticity
21-24	10" Sonic	Brownish Gray CLAY, moist, high plasticity
34-32	10" Sonic	Brownish Gray CLAY, moist to very moist, high plasticity
32-53	10" Sonic to 39 feet	Brownish Gray CLAY, dencer, slightly moist,
		44 - thin layer of brownish orange fine grained sand
		47 - transitioning into a gray clay
		49 - thin layer of brownish orange fine grained sand
53-55	8" Sonic	Brownish Gray CLAY, dense, very plastic, slightly moist
55-73	8" Sonic	Brown CLAY, very plastic, slightly moist
73-82	8" Sonic	Brown fine grained SAND with a clay matrix, saturated

TD = 82; PVC 4-inch screen from 72 to 82; PVC 4-inch riser from -2.5 to 72

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Thomas Hedrick



ISPC- CB LANDFILL AREA
DELTA, UTAH

CLW-4 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs

IPSC

Delta, Utah

CLW-5

Interval (feet)	Drilling Method	Sample Description
		7/26/2015
0-3	10" Sonic	Light Brown fine grained Sands with silts and gravel, dry
3-4	10" Sonic	Gravels with medium to fine grand sands, moist
4-7.5	10" Sonic	Light Brown sitly CLAY, slightly moist, good plasticity
7.5-10	10" Sonic	Light Brown fine to medium grained SAND, dry
10-12	10" Sonic	Light Brown to Gray fine to medium grained SAND, gravels present, slightly moist
12-13	10" Sonic	Light Brown clayey SILT, slightly moist,
13-15	10" Sonic	Brown fine to medium grained SAND, wht clays and silts, slightly moist
		7/27/2015
15-22	10" Sonic	Brown silty CLAY, slightly moist, good plasticity
22-32	10" Sonic	Light Brown CLAY, moistgood plasticity
32-38	10" Sonic	Brown CLAY, slightly moist, high plasticity
38-40	10" Sonic to 39 feet	Light Gray CLAY, slightly moist, hight plasticity
40-44	8" Sonic	Light Brown to Brown CLAY, slightly moist, high plasticity
44-52	8" Sonic	Light Gray CLAY, hight plasticity, slighly moist
52-53	8" Sonic	Brown CLAY, high plasticity, slightly moist
53-55	8" Sonic	Gray CLAY, high plasticity, slightly moist
55-72	8" Sonic	Gray CLAY, high plasticity, moist
72-74	8" Sonic	Gray fine grained SAND, with clay matrix, moist to saturated
74-75	8" Sonic	Gray CLAY with fine grained sandy matrix, poor plasticity, moist
75-78	8" Sonic	Gray fine grained SAND wht a clayey matrix, poor plasticity, saturated
78-80	8" Sonic	Gray CLAY with fine grained sandy matrix, poor plasticity, moist
80-82	8" Sonic	Gray fine grained SAND wht a clayey matrix, poor plasticity, saturated

TD = 82; PVC 4-inch screen from 72 to 82; PVC 4-inch riser from -2.5 to 72

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 82 feet

10-inch dia. boring to
39-feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 65-feet
below ground surface (bgs)

Medium bentonite chips
From 35 to 39 feet bgs

8-inch boring from
39 to 82-feet bgs

Medium bentonite chips
From 65 to 69 feet bgs)

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 69 to 82 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 72-
feet bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-feet; 4-inch 0.020-slotted, PVC
well screen from 72 to 82 -feet bgs

Total Depth (TD) = 82 feet bgs



ISPC- CB LANDFILL AREA
DELTA, UTAH

CLW-5 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs

IPSC

Delta, Utah

CLW-6

Interval (feet)	Drilling Method	Sample Description
		7/26/2015
0-3	10" Sonic	Light Brown fine grained Sands with silts and gravel, dry
3-5	10" Sonic	Light Brown silty fine grained SAND, dry
5-7	10" Sonic	Light Brown fine grained sandy SILT, dry
7-12	10" Sonic	Light Brown fine to medium grained SAND, dry
12-15	10" Sonic	Light Brown fine grained sand, with a clay matrix, dry
15-21	10" Sonic	Light Brown to Brown clayey SILT, slightly moist, poor plasticity
21-22	10" Sonic	Light Brown fine grained sand, with a clay matrix, dry
21-23		Light Brown to Brown clayey SILT, slightly moist, poor plasticity
23-32	10" Sonic	Light Brown CLAY, moist, sticky, high plasticity
32-38	10" Sonic	Light Brown to Gray CLAY, moist, high plasticity
38-47	10" Sonic	Light Gray to Gray CLAY, slightly moist, high plasticity
47-55	10" Sonic to 39 feet	Transitioned to a Brownish gray CLAY, high plasticity, slight moist
55-72	8" Sonic	Brown CLAY, high plasticity, slightly moist
		58 - 58.5 very moist to saturated, 59 - slightly moist
72-78	8" Sonic	Gray CLAY, very moist, high plasticity
78-82	8" Sonic	Gray fine grained SAND with a clay matrix, poor plasticity, saturated
82-84	8" Sonic	Gray CLAY, high plasticity, very moist
84-85	8" Sonic	Gray fine grained SAND with a clay matrix, poor plasticity, saturated
85-88	8" Sonic	Gray CLAY, high plasticity, very moist

TD = 88; PVC 4-inch screen from 78 to 88; PVC 4-inch riser from -2.5 to 78

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 82 feet

10-inch dia. boring to
39-feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 70-feet
below ground surface (bgs)

Medium bentonite chips
From 35 to 39 feet bgs

8-inch boring from
39 to 88-feet bgs

Medium bentonite chips
From 70 to 74 feet bgs)

Sand Filter Pack
(16/30 washed, silica sand,
4 feet above screen
from 74 to 88 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 78-
feet bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-feet; 4-inch 0.020-slotted, PVC
well screen from 78 to 88 -feet bgs

Total Depth (TD) = 88 feet bgs



ISPC- CB LANDFILL AREA
DELTA, UTAH

CLW-6 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs
IPSC
Delta, Utah

CLW-7

Interval (feet)	Drilling Method	Sample Description
		7/24/2015
0-8	10" Sonic	Light Brown fine grained Sands with silts and gravel, angular, Dry
8-12	10" Sonic	Light Brown fine grained Sands with silts and clay, No gravel, Dry
12-15	10" Sonic	Tan SILT with a clay matrix, Dry
15-17	10" Sonic	Light Brown to Gray CLAY, medium plasticity, silty present, Dry
17-22	10" Sonic	Light Brown Clayey SILT, slightly moist
22-24	10" Sonic	Light Brown to Grayish silty CLAY, Dry
24-32	10" Sonic	Light Brown to Grayish CLAY, Brown silts and fine grained sands present, , Dry
32-40	10" Sonic to 39 feet	Light Brown CLAY, slightly moist, became denser at 35 feet
40-43	8" Sonic	Light Brown to Grayish CLAY, very dense, slightly moist
43-48	8" Sonic	Gray CLAY, slightly moist, some layers of a brown fine grained sand present every 3 to 4 inches along the core
48-50	8" Sonic	Gray CLAY, slightly moist, some Iron Oxide present
50-51.5	8" Sonic	Brown fine to medium grained SANDS, saturated
51.5-58	8" Sonic	Brown CLAY, moist to slightly moist
58-58.5	8" Sonic	Brown fine grained SANDS, with a clay matrix, saturated
58.5-61	8" Sonic	Brown CLAY, moist to slightly moist
61-68	8" Sonic	Brown fine to medium grained SANDS, saturated
68-70	8" Sonic	Brown CLAY, moist to slightly moist
70-72	8" Sonic	Brown fine to medium grained SANDS, saturated

TD = 72; PVC 4-inch screen from 52 to 72; PVC 4-inch riser from -2.5 to 52

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 70 feet

10-inch dia. boring to
39-feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 45-feet
below ground surface (bgs)

Medium bentonite chips
From 35 to 39 feet bgs

8-inch boring from
39to 72-feet bgs

Medium bentonite chips
From 45 to 49 feet bgs)

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 49 to 72 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 52-
feet bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-feet; 4-inch 0.020-slotted, PVC
well screen from 52 to 72 -feet bgs

Total Depth (TD) = 72 feet bgs



ISPC- CB LANDFILL AREA
DELTA, UTAH

CLW-7 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs

IPSC

Delta, Utah

CLW-8

Interval (feet)	Drilling Method	Sample Description
		7/24/2015
0-3	10" Sonic	Light Brown fine grained Sands with silts and gravel, dry
3-5	10" Sonic	Light Brown fine grained Sands, slightly moist
5-7	10" Sonic	Tannish white fine grained Sand, with smooth, rounded pebbles, slightly moist
7-10	10" Sonic	Tannish white silty, fine grained Sand, slightly moist
10-13	10" Sonic	Tan SILT with a clay matrix, slightly most, slightly plastic
13-15	10" Sonic	Tan Clayey SILT, dry, plastic
15-18	10" Sonic	Light Brown to tan silty CLAY, slightly moist, good plasticity
18-24	10" Sonic	Light Brown CLAY with silts present, slightly moist, good plasticity
24-32	10" Sonic	Brown silty CLAY, slightly moist, good plasticity
32-37	10" Sonic	Brown CLAY, dence, dry to slihgtly moist, very plastic
37-52	10" Sonic to 39 feet	Transitioned fomrthe Brown CLAY to a Gray CLAY, with interbeds of brown fine gran sand layers, highly plastic, slihgltly moist
52-62	8" Sonic	Brown fine grained SAND with a clay matrix, saturated

TD = 62; PVC 4-inch screen from 52 to 62; PVC 4-inch riser from -2.5 to 52

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Thomas Hedrick

Above-grade, 5-ft. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-ft. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 62 feet

10-inch dia. boring to
39-ft bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 45-ft
below ground surface (bgs)

Medium bentonite chips
From 35 to 39 feet bgs

8-inch boring from
39 to 72-ft bgs

Medium bentonite chips
From 45 to 49 feet bgs)

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 49 to 62 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 52-ft
bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-ft; 4-inch 0.020-slotted, PVC
well screen from 52 to 62 -ft bgs

Total Depth (TD) = 62 feet bgs



ISPC- CB LANDFILL AREA
DELTA, UTAH

CLW-8 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs
ISPC
Delta, Utah

CL-W-9

Interval (feet)	Drilling Method	USCS	Sample Description
03/24/2018 - 03/25/2018			
0-1	8" Sonic	MW	Sandy silt
1-3.5	8" Sonic	SW	Sand, silt and gravel
3.5-4.5	8" Sonic	MH	Silt
4.5-7	8" Sonic	SW	Sand, silt and gravel
7-8.5	8" Sonic	SW	Sand and gravel
8.5-11.5	8" Sonic	SP	Sand, fine, dry
11.5-12.5	8" Sonic	SW	Sand and gravel
12.5-17	8" Sonic	SP	Sand, fine, dry
17-21	8" Sonic	SP	Sand, fine, dry
21-21.5	8" Sonic	CH	Clay, gray
21.5-22.5	8" Sonic	SP	Fine, sand, dry
22.5-27	8" Sonic	CH	Silty clay, red mottling in silt zones
27-37	8" Sonic	CH	Fat clay, firm, moist
37-38.5	8" Sonic	CH	Fat clay, firm moist
			38.5→ 47 drop out of cole barrel
38.5-49	8" Sonic	CH	Fat clay, firm, moist
49-55	8" Sonic	CH	Clay, firm; moist, gray
55-57	8" Sonic	CH	Silty clay, gray with black silt mottling
57-61	8" Sonic	CH	Silty clay, saturated
61-67	8" Sonic	CH	Clay, firm, moist
67-68.5	8" Sonic	MH	Silt, wet
68.5-75	8" Sonic	CH	Silty clay, moist
75-76	8" Sonic	MH	Silty, moist
76-77	8" Sonic	CH	Silty clay
77-78.5	8" Sonic	MH	Clay, firm, moist
78.5-84	8" Sonic	CH	Silty clay, moist
84-86.5	8" Sonic	CH	Clay, moist
86.5-87	8" Sonic	SP	Sand, coarse, saturated
87-89	8" Sonic	SP	Sandy, coarse, saturated
89-90	8" Sonic	CH	Silty clay
90-96.5	8" Sonic	MH	Silt with clay stringers, saturated
96.5-97	8" Sonic	CH	Clay

TD = 99; PVC sump 87-77; screen 77-67; sand 87-62 centralizers 67.5 and 76.5
Drilling Method: Sonic

Drilling Company - Cascade Drilling
Driller - David Donnelly
Geologist - Tom Fendler

Flush-mount, Wellhead Protective Vault, 8-inch diameter, steel lid

Ground Surface

Concrete Apron

Borehole:
8-inch diameter,
from 0 to 97-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 0.25 - 87 feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 77-feet bgs

Bentonite medium chips, from 77
to 82 feet bgs

At Time of Drilling, Depth to
Uppermost Ground Water ~ 87 to 92-
feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 62 to 77 feet bgs)

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 87 to 97 feet bgs

Total Depth (TD) = 97 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT AREA
DELTA, UTAH

Well CL-W-9 Schematic

Date Drawn
10/24/18
Last Revision
Date

Design by

Drawn by

JR

Scale

Boring Logs
IPSC
Delta, Utah

CL-U-1

Interval (feet)	Drilling Method	USCS	Sample Description
7/22/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2	8" Sonic	SP/SM	SAND with silt:
2-2.5	8" Sonic	SM/ML	Silty SAND/Sandy Silt:
2.5-5	8" Sonic	SM	Silty SAND:
5-6	8" Sonic	CL	CLAY:
6-7.5	8" Sonic	SM/ML	Silty SAND/Sandy SILT with clay:
7.5-10	8" Sonic	CH	CLAY:
10-11	8" Sonic		CLAY:
11-12.5	8" Sonic		CLAY:
12.5-13.5	8" Sonic		CLAY:
13.5-15	8" Sonic	ML	Sandy SILT:
15-16.5	8" Sonic	SP/SM	SAND with silt:
16.5-17.5	8" Sonic	SM	Silty SAND:
17.5-20	8" Sonic	SP	SAND:
20-21	8" Sonic		SAND:
21-22	8" Sonic	ML	Sandy SILT:
22-23	8" Sonic	SP	SAND:
23-24	8" Sonic	ML	Sandy SILT:
24-25	8" Sonic	SP	SAND:
25-26	8" Sonic	ML	Sandy SILT:
26-28	8" Sonic		Sandy SILT:
28-30	8" Sonic		SILT with clay:
30-32	8" Sonic		Sandy SILT:
32-34	8" Sonic	SP	SAND:
34-35	8" Sonic	ML	Sandy SILT with clay:
35-40	8" Sonic	CL	CLAY:
40-42	8" Sonic	ML	SILT with clay:
42-45	8" Sonic	CH	CLAY:
45-55	8" Sonic		CLAY:
55-65	8" Sonic		CLAY:
7/23/2015			
65-66.5	8" Sonic	CH	Sandy CLAY:
66.5-67.5	8" Sonic	SP/SM	SAND with silt:
67.5-72.5	8" Sonic		SAND with silt:
72.5-73.5	8" Sonic	SP	SAND:
73.5-75	8" Sonic	SC	Clayey SAND:
75-76.5	8" Sonic	SW	SAND:
76.5-79	8" Sonic	SP	SAND:
79-80	8" Sonic	CH	CLAY:

TD = 80'; PVC 4-inch screen from 68 to 78; PVC 4-inch riser from -2.5 to 68

Drilling Method: Guspech GS24-300RS 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 80-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 68 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 61.5-feet bgs

At Time of Drilling,
Depth to main Groundwater:
~ 66.5-feet bgs

Bentonite medium chips, from
61.5.5 to 66.5 feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

Sand Filter Pack:
16/30 washed silica sand,
1.5-feet above screen
from 66.5 to 80 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 68 to 78 feet bgs

Total Depth (TD) = 80 feet bgs



IPSC – COMBUSTION BYPRODUCT LANDFILL AREA
DELTA, UTAH

Well CL-U-1 Schematic

Date Drawn
7/23/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
IPSC
Delta, Utah

CLU-2

Interval (feet)	Drilling Method	Sample Description
		7/22/2015
0-6	8" Sonic	Light Brown fine grained SAND with silt, dry
6-7.5	8" Sonic	Light Brown to Tan CLAY with silt, slightly moist
7.5-13	8" Sonic	Light Brown fine grained SAND with silt, dry
13-16	8" Sonic	Brown fine grained SAND with clayey matrix, slightly moist, some plasticity
16-24	8" Sonic	Light Brown fine grained SAND, dry
24-35	8" Sonic	Light Brown clayey SILT, dry
35-44	8" Sonic	Light Brown Silty CLAY, dry, good plasticity
44-48	8" Sonic	Gray Clayey SILT, dry, slightly plastic
48-49	8" Sonic	Brownish Orange CLAY, with a silty matrix, dry, good plasticity
49-60	8" Sonic	Brownish Orange CLAY, slightly moist
	8" Sonic	53-55 soil becomes slightly moist and Iron Oxide present
	8" Sonic	57-61 soil is dry
61-67	8" Sonic	Brownish Gray CLAY, at 61 feet very moist, very plastic
67-70	8" Sonic	Gray CLAY, moist, very plastic
70-75	8" Sonic	Gray fine to medium grained SAND, saturated, nonplastic
75-77	8" Sonic	Greenish Gray to Brown Clay fine grained SAND with a CLAY matrix, saturated
77-80	8" Sonic	Brownish Gray, fine to medium grained SAND, saturated

TD = 80; PVC 4-inch screen from 70 to 80; PVC 4-inch riser from -2.5 to 70

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch. 40 PVC
Well Casing
from ~ 2.0 - 80 feet bgs

Cement-Bentonite (~ 10:1)
Grout, Tremie-Pipe Slurry
from 0 to 63-feet below
ground surface (bgs)

8-inch boring from
0 to 80-feet bgs

Medium bentonite chips
From 63 to 67 feet bgs)

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 67 to 80 feet bgs)

At Time of Drilling, Depth to Uppermost
Ground Water ~ 70-fbgs

Centralizers placed ~ the
bottom and the top of the
well screen

10-feet; 4-inch 0.020-slotted,
PVC well screen from 70 to 80-feet
bgs

Total Depth (TD) = 80 feet bgs



IPSC- CB LANDFILL AREA
DELTA, UTAH

Well CLU-2 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs

ISPC

Delta, Utah

CL-U-3

Interval (feet)	Drilling Method	USCS	Sample Description
3/26/2018			
0-2	8" Sonic	SW	Sand, silt and clay
2-14	8" Sonic	SP	Sand, poorly graded, dry
14-17	8" Sonic	MH	Silt, dry
17-18	8" Sonic	MH	Silt with trace clay, dry
18-27.5	8" Sonic	MH	Silt, dry
27.5-37	8" Sonic	CH	Clay, silt stringers every 3-10", red mottling, moist
37-48	8" Sonic	CH	Clay, distance between silt stringers increasing to 10-18"
48-57	8" Sonic	CH	Clay, massively bedded
57-64	8" Sonic	CH	Clay, massively bedded
64-65	8" Sonic	SP	Sand, medium-grain, saturated
65-66	8" Sonic	MH	Silt, saturated
66-67	8" Sonic	SP	Sand, saturated
67-74	8" Sonic	SP	Sand, saturated
74-75	8" Sonic	CH	Clay
75-77	8" Sonic	SP	Sand, saturated

TD = 77; screen 67-77; sand 62-7; plug 57-62; grout to surface; centralizers 66.5 and 76.5

Drilling Method: Sonic

Drilling Company - Cascade Drilling

Driller - David Donnely

Geologist - Tom Fendler

Flush-mount, Wellhead Protective Vault, 8-inch diameter, steel lid

Ground Surface

Concrete Apron

Borehole:
8-inch diameter,
from 0 to 77-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 0.25 - 67 feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 57-feet bgs

Bentonite medium chips, from 57
to 62 feet bgs

At Time of Drilling, Depth to
Uppermost Ground Water ~ 65 to 70-
feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 62 to 77 feet bgs)

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 67 to 77 feet bgs

Total Depth (TD) = 77 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT AREA
DELTA, UTAH

Well CL-U-3 Schematic

Date Drawn
10/24/18
Last Revision
Date

Design by

Drawn by

JR

Scale

Boring Logs
ISPC
Delta, Utah

BAC-1

Interval (feet)	Drilling Method	USCS	Sample Description
7/31/2015			
0-0.75	8" Sonic	Concrete	Surface - concrete soil mixture
0.75-2.5	8" Sonic	SM	Silty SAND:
2.5-3.25	8" Sonic		Silty SAND:
3.25-5	8" Sonic		SAND with silt:
5-12.5	8" Sonic	SP/SM	SAND with silt:
12.5-13.5	8" Sonic		SAND with silt:
13.5-14.5	8" Sonic	ML	Sandy SILT:
14.5-15	8" Sonic		Sandy SILT:
15-17.5	8" Sonic	SP	SAND:
17.5-19	8" Sonic	SP/SW	SAND:
19-20	8" Sonic	SP/SM	SAND with silt:
20-21.5	8" Sonic	SP	SAND:
21.5-22.5	8" Sonic	ML	Sandy SILT:
22.5-24	8" Sonic		Sandy SILT:
24-25	8" Sonic	SP	SAND:
25-26.75	8" Sonic	SM	Silty SAND:
26.75-27.5	8" Sonic	SP	SAND:
27.5-28.5	8" Sonic		SAND:
28.5-30	8" Sonic	SM	Silty SAND:
30-31.5	8" Sonic	SP	SAND:
31.5-32.25	8" Sonic	SM	Silty SAND:
32.25-33.75	8" Sonic	SP/SM	SAND with silt:
33.75-35	8" Sonic	SM	Silty SAND:
35-36	8" Sonic	SP/SM	SAND with silt:
36-37.5	8" Sonic	SM	Silty SAND:
37.5-38	8" Sonic	SP/SM	SAND with silt:
38-38.5	8" Sonic	SM	Silty SAND:
38.5-40	8" Sonic	ML	Sandy SILT:
40-42.5	8" Sonic	SC	Clayey SAND:
42.5-43.5	8" Sonic	CL	Sandy CLAY:
43.5-44.5	8" Sonic		Sandy CLAY:
44.5-45	8" Sonic		Sandy CLAY:
45-46	8" Sonic		Sandy CLAY:
46-47	8" Sonic	CH	Sandy CLAY:
47-47.75	8" Sonic		SAND:
47.75-48.5	8" Sonic		Sandy CLAY:
48.5-50	8" Sonic		Sandy CLAY:
50-51.5	8" Sonic		CLAY:
51.5-53.5	8" Sonic		Sandy CLAY:
53.5-56	8" Sonic		CLAY:
56-57.5	8" Sonic		Sandy CLAY:
57.5-58	8" Sonic	SC	Clayey SAND:
58-59.5	8" Sonic	CH	CLAY:
59.5-60	8" Sonic	SC	Clayey SAND:
60-64.5	8" Sonic	SM	Silty SAND with clay:
64.5-65.5	8" Sonic	SC	Clayey SAND:
65.5-67.5	8" Sonic	SP	SAND:
67.5-70	8" Sonic	SW	SAND:

TD = 70'; PVC 4-inch screen from 60 to 70; PVC 4-inch riser from 0 to 60

Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Flush-mount, Wellhead Protective Vault, 8-inch diameter, steel lid

Ground Surface

Concrete Apron

Borehole:
8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 0.25 - 60 feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 53-feet bgs

Bentonite medium chips, from 53
to 58 feet bgs

At Time of Drilling, Depth to
Uppermost Ground Water ~ 60-feet
bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 58 to 70 feet bgs)

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 60 to 70 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT AREA
DELTA, UTAH

Well BAC-1 Schematic

Date Drawn
7/31/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
IPSC
Delta, Utah

BAC-2

Interval (feet)	Drilling Method	Sample Description
		7/29/2015
0-6	8" Sonic	Light Brown fine grained Sand, gravels, dry
6-12	8" Sonic	Light Brown fine grained SAND, moist
12-18	8" Sonic	Light Brown fine to medium grained sand, dry
18-23	8" Sonic	Light Brown fine to medium grained sand, with a clay matrix, dry
23-24	8" Sonic	Light Brown fine to medium grained sand, very moist, trace amount of clay
24-26	8" Sonic	Brown fine to medium grained sand, slightly moist
26-30	8" Sonic	Brown fine to medium grained sand, with gravels present, slightly moist
30-33	8" Sonic	Light Brown fine grained sand, slightly moist
33-34	8" Sonic	Light Brown CLAY, very moist, high plasticity
34-36	8" Sonic	Light Brown fine grained sand, with a clay matrix, moist
36-38	8" Sonic	Light Brown Silty CLAY, moderately plastic, slightly moist
38-40	8" Sonic	Brownish Red silty CLAY, good plasticity, slightly moist
40-41	8" Sonic	Brown fine grained SAND, saturated
41-42	8" Sonic	Brown SILT with a clay matrix, slightly moist
42-52	8" Sonic	Reddish brown CLAY, high plasticity, dry to slightly moist
52-55	8" Sonic	Reddish brown CLAY, high plasticity, dry to slightly moist, very dense
55-56	8" Sonic	Brown fine grained SAND with a clay matrix very moist to saturated
56-57	8" Sonic	Reddish brown CLAY, high plasticity, slightly moist to moist
57-65	8" Sonic	Brown fine grained SAND with a clay matrix, saturated

TD = 65; PVC 4-inch screen from 55 to 65; PVC 4-inch riser from -2.5 to 55

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 65 feet

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 48-feet
below ground surface (bgs)

8-inch boring from 0 to
65-feet bgs

Medium bentonite chips
From 48 to 52 feet bgs

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 52 to 65 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 56-
feet bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-feet; 4-inch 0.020-slotted, PVC
well screen from 55 to 65 -feet bgs

Total Depth (TD) = 65 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

BAC-2 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

Boring Logs
IPSC
Delta, Utah

BAC-3

Interval (feet)	Drilling Method	Sample Description
		7/28/2015
0-8.5	8" Sonic	Light Brown fine grained Sand, dry
8.5-11	8" Sonic	Light Brown fine to medium grained SAND, moist
11-14	8" Sonic	Light Brown fine grained sand, with a clay matrix, dry
14-17	8" Sonic	Gravels with fine to medium grained SAND, slightly moist
17-20	8" Sonic	Brown fine grained sand, slightly moist
20-22	8" Sonic	Brown fine to medium grained sand, with a clay matrix, slightly moist
22-26	8" Sonic	Brown fine to medium grained sand, with a clay matrix, moist
26-30	8" Sonic	Brown fine grained sand, moist
30-43	8" Sonic	Light Brown CLAY, slightly moist to moist, high plasticity
		30-33 Silty CLAY, poor plasticity
		33-35 Silty CLAY, moderately plastic
		35-43 very little silt present, high plasticity
43-45	8" Sonic	Transitioned to a Reddish Brown CLAY, dry, high plasticity
45-50	8" Sonic	Transitioned to a Brown CLAY, dry, high plasticity
50-55	8" Sonic	Light Brown CLAY, moist, high plasticity
55-58	8" Sonic	Light Brown fine grained SAND, with a clay matrix, slightly moist to moist
58-72	8" Sonic	Light Brown CLAY, with a sandy matrix medium to poor plasticity, moist

TD = 72; PVC 4-inch screen from 52 to 72; PVC 4-inch riser from -2.5 to 52

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Thomas Hedrick

Above-grade, 5-feet. long, 6-in. dia., steel
Wellhead Protective Monument
~ 2.5-feet. stick-up

Ground Surface

4-inch Diameter, Sch 40 PVC
Well Casing from -2.0 - 72 feet

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry from 0 to 45-feet
below ground surface (bgs)

8-inch boring from 0 to
72-feet bgs

Medium bentonite chips
From 45 to 49 feet bgs

Sand Filter Pack
(16/30 washed, silica sand,
3 feet above screen
from 49 to 72 feet bgs)

At Time of Drilling, Depth to
Uppermost Ground Water ~ 55-
feet bgs

Centralizers - placed at
the bottom and at the top
of the screen

10-feet; 4-inch 0.020-slotted, PVC
well screen from 52 to 72 -feet bgs

Total Depth (TD) = 72 feet bgs



ISPC- BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

BAC-3 Schematic

Date Drawn
9/1/15

Design by

Drawn by

TH

Scale

Last Revision
Date

BAC-4

Interval (feet)	Drilling Method	USCS	Sample Description
8/10/2015			
0-0.5	8' Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2.5	8' Sonic	SP/SM	SAND with silt:
2.5-5	8' Sonic	SP	SAND:
5-9	8' Sonic		SAND:
9-10	8' Sonic	SP/SM	SAND with silt:
10-15	8' Sonic	SP	SAND:
15-17.5	8' Sonic	SP/SM	SAND with silt:
17.5-19	8' Sonic		SAND with silt:
19-2	8' Sonic	SC	Clayey SAND:
20-21	8' Sonic		Clayey SAND:
21-22	8' Sonic	CL	Sandy CLAY:
22-22.5	8' Sonic	ML	Sandy SILT:
22.5-25	8' Sonic	CL	Sandy CLAY:
25-32.5	8' Sonic	CH	CLAY:
32.5-33.75	8' Sonic	SP	SAND:
33.75-35	8' Sonic	SM	Silty SAND:
35-36.5	8' Sonic	SP/SM	SAND with silt:
36.5-37.5	8' Sonic		SAND with silt:
37.5-38	8' Sonic	SM	Silty SAND:
38-38.75	8' Sonic	CH	Sandy CLAY:
38.75-39	8' Sonic	SP/SM	SAND with silt:
39-40	8' Sonic	CH	Sandy CLAY:
40-42.5	8' Sonic	ML	Sandy SILT with clay:
42.5-43.5	8' Sonic	SM	Silty SAND and clay:
43.5-45	8' Sonic	CH	CLAY:
45-47.5	8' Sonic		CLAY:
47.5-48.5	8' Sonic		CLAY:
48.5-50	8' Sonic	ML	Clayey SILT with sand:
50-51.25	8' Sonic		Clayey SILT:
51.25-52.5	8' Sonic	CH	CLAY:
52.5-55	8' Sonic	SC	Clayey SAND:
55-56.5	8' Sonic	SM	Silty SAND:
56.5-57	8' Sonic	ML	Clayey SILT with sand:
57-57.5	8' Sonic	CH	CLAY:
57.5-58.5	8' Sonic		CLAY:
58.5-59.5	8' Sonic	ML	Clayey SILT with sand:
59.5-61	8' Sonic		Clayey SILT with sand:
61-64	8' Sonic		Clayey SILT with sand:
64-65	8' Sonic		Clayey SILT with sand:
65-65.5	8' Sonic	SM	Silty SAND:
65.5-67	8' Sonic	CL	Silty CLAY:
67-67.5	8' Sonic	ML	Clayey SILT:
67.5-69	8' Sonic	CH	CLAY:
69-69.5	8' Sonic		CLAY:
69.5-70	8' Sonic		CLAY:
70-72.5	8' Sonic	ML	Sandy SILT with clay:
72.5-74	8' Sonic	CH	Silty CLAY:
74-75	8' Sonic	SM	Silty SAND:

TD = 75'; PVC 4-inch screen from 55 to 75; PVC 4-inch riser from -2.5 to 55

Drilling Method: Prosonic T600, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

Blank Well Casing Riser:
4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 55 feet below ground surface (bgs)

8-inch diameter,
from 0 to 75-feet bgs

Cement-Bentonite gel (~ 10:1) Grout, Tremie-
Pipe Slurry,
from 0 to 48-feet below ground surface (bgs)

Bentonite medium chips,
from 48 to 53 feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 55-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 53 to 75 feet bgs)

20-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 55 to 75 feet bgs

Total Depth (TD) = 75 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

Well BAC-4 Schematic

Date Drawn
8/10/15

Design by

Drawn by

MS

Scale

Last Revision
Date

BAC-5

Interval (feet)	Drilling Method	USCS	Sample Description
8/9/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2.5	8" Sonic	SP/SM	Gravelly SAND with silt:
2.5-3	8" Sonic	SP	SAND:
3-6.5	8" Sonic		SAND:
6.5-10	8" Sonic		SAND:
10-12.5	8" Sonic		SAND:
12.5-15	8" Sonic	SP/SM	SAND with silt:
15-19	8" Sonic	SM	Silty SAND:
19-19.5	8" Sonic	SC	Clayey SAND:
19.5-20	8" Sonic	SP/SM	SAND with silt:
20-22.5	8" Sonic	CL	Sandy CLAY:
22.5-23.75	8" Sonic		Sandy CLAY:
23.75-25	8" Sonic		Sandy CLAY:
25-27.5	8" Sonic		Sandy CLAY:
27.5-30	8" Sonic		CLAY:
30-32.5	8" Sonic	CL/CH	CLAY:
32.5-33.5	8" Sonic	SP	SAND:
33.5-35	8" Sonic		SAND:
35-36	8" Sonic	SC	Clayey SAND:
36-37.5	8" Sonic	ML	Sandy SILT:
37.5-38.5	8" Sonic		Sandy SILT:
38.5-40	8" Sonic	SM	Silty SAND with clay:
40-42.5	8" Sonic		Silty SAND:
42.5-44.25	8" Sonic		Silty SAND with clay:
44.25-45	8" Sonic	CH	CLAY:
45-46.5	8" Sonic		CLAY:
46.5-47.5	8" Sonic		CLAY:
47.5-49	8" Sonic		CLAY:
49-50.75	8" Sonic	SM	Silty SAND:
50.75-52.5	8" Sonic	CH	CLAY:
52.5-53.5	8" Sonic		CLAY:
53.5-55.5	8" Sonic	SP	SAND:
55.5-57.5	8" Sonic	CH	CLAY:
57.5-59	8" Sonic		CLAY:
59-60	8" Sonic	SM	Silty SAND with clay:
60-62.5	8" Sonic	SP	SAND:
62.5-63	8" Sonic	SC	Clayey SAND:
63-65	8" Sonic	SP	SAND:
65-65.75	8" Sonic	SC	Clayey SAND:
65.75-66.5	8" Sonic	CH	CLAY:
66.5-67.5	8" Sonic	SC	Clayey SAND:
67.5-69	8" Sonic	CH	CLAY:
69-70	8" Sonic		CLAY:

TD = 70'; PVC 4-inch screen from 58 to 68; PVC 4-inch riser from -2.5 to 58

Drilling Method: Prosonic T600, 8" Rotosonic

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 58 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry, from 1 to 51-feet
bgs

Bentonite medium chips,
from 51 to 56 feet bgs

At Time of Drilling,
Depth to Uppermost
Ground Water ~ 59-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack
(16/30 washed silica sand,
2-feet above screen
from 56 to 70 feet bgs)

Well Screen:
10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 58 to 68 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

Well BAC-5 Schematic

Date Drawn
8/09/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
ISPC
Delta, Utah

BAC-6

Interval (feet)	Drilling Method	USCS	Sample Description
8/8/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2.5	8" Sonic	SP/SM	Gravelly SAND with silt:
2.5-5	8" Sonic	SP	SAND:
5-6.5	8" Sonic	SP/SM	SAND with silt:
6.5-7.5	8" Sonic	SP	SAND:
7.5-10	8" Sonic		SAND:
10-13.5	8" Sonic		SAND:
13.5-15	8" Sonic	SM	Silty SAND:
15-16	8" Sonic	SP	SAND:
16-17.5	8" Sonic	SM	Silty SAND:
17.5-18.25	8" Sonic	SP/SM	SAND with silt:
18.25-18.75	8" Sonic	CL	Sandy CLAY:
18.75-20	8" Sonic	SC	Clayey SAND:
20-21.5	8" Sonic	CH	Sandy CLAY:
21.5-23	8" Sonic	SM	Silty SAND:
23-25	8" Sonic	CL	CLAY:
25-27.5	8" Sonic	CH	CLAY:
27.5-30	8" Sonic		CLAY:
30-32.5	8" Sonic		CLAY:
32.5-33.5	8" Sonic		CLAY:
33.5-35	8" Sonic	SW	SAND:
35-36	8" Sonic	SM	Silty SAND:
36-37.5	8" Sonic	SP/SM	SAND with silt:
37.5-38.5	8" Sonic	CH	CLAY:
38.5-40	8" Sonic	SM	Silty SAND with clay:
40-42.5	8" Sonic		Silty SAND:
42.5-43.5	8" Sonic	CH	Sandy CLAY:
43.5-45	8" Sonic		CLAY:
45-45.5	8" Sonic	SC	Clayey SAND:
45.5-47.5	8" Sonic	CH	CLAY:
47.5-48	8" Sonic	SP	SAND:
48-49.5	8" Sonic	SM	Silty SAND with clay:
49.5-50	8" Sonic	CH	Sandy CLAY:
50-52.5	8" Sonic		CLAY:
52.5-55	8" Sonic		CLAY:
55-56	8" Sonic	SM	Silty SAND:
56-60	8" Sonic	SW	SAND:
60-61	8" Sonic		SAND:
61-62.5	8" Sonic	CH	Sandy CLAY:
62.5-63.5	8" Sonic		CLAY:
63.5-65	8" Sonic	SC	Clayey SAND:

TD = 65; PVC 4-inch screen from 55 to 65; PVC 4-inch riser from -2.5 to 55
Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Daniel Dodge
Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 65-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 55 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 1 to 48-feet bgs

Bentonite medium chips, hydrated
5-foot length;
from 48 to 53 feet bgs

At Time of Drilling,
Depth to Uppermost
Ground Water ~ 55-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
16/30 washed silica sand,
2-feet above screen
from 53 to 65 feet bgs

10-foot; 4-inch 0.0200 Slotted, PVC well
screen from 55 to 65 feet bgs

Total Depth (TD) = 65 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

Well BAC-6 Schematic

Date Drawn
8/08/15

Design by

Drawn by

MS

Scale

Last Revision
Date

BAC-7

Interval (feet)	Drilling Method	USCS	Sample Description
8/7/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2	8" Sonic	SP/SM	Gravelly SAND:
2-2.5	8" Sonic	SP	Gravelly SAND:
2.5-5	8" Sonic		SAND:
5-7	8" Sonic		SAND:
7-8.5	8" Sonic		SAND:
8.5-9	8" Sonic	SP/SM	SAND with silt:
9-9.5	8" Sonic	SP	SAND:
9.5-11	8" Sonic	SP/SM	SAND with silt:
11-13	8" Sonic		SAND with silt:
13-17	8" Sonic	SM	Silty SAND:
17-18.5	8" Sonic		Silty SAND:
18.5-19	8" Sonic	ML	Sandy SILT:
19-20.25	8" Sonic	SP/SM	SAND with silt:
20.25-22	8" Sonic	CL	Sandy CLAY:
22-24	8" Sonic		Sandy CLAY:
24-25	8" Sonic	SC	Clayey SAND:
25-27.5	8" Sonic	CH	CLAY:
27.5-36.5	8" Sonic		CLAY:
36.5-40	8" Sonic	SP	SAND:
40-41.25	8" Sonic		SAND:
41.25-43.75	8" Sonic	SP/SM	SAND with silt:
43.75-45	8" Sonic	CH	CLAY:
45-47.5	8" Sonic		CLAY:
47.5-49	8" Sonic		CLAY:
49-50	8" Sonic	SM	Silty SAND:
50-57.5	8" Sonic	CH	CLAY:
57.5-60	8" Sonic	SW	SAND:
60-62.5	8" Sonic		SAND:
62.5-64	8" Sonic	SP	SAND:
64-65	8" Sonic	CH	CLAY:
65-66.25	8" Sonic		Sandy CLAY:
66.25-67.5	8" Sonic		CLAY:
67.5-70	8" Sonic		CLAY:

TD = 70'; PVC 4-inch screen from 57 to 67; PVC 4-inch riser from -2.5 to 57

Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 57 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 50-feet bgs

Bentonite medium chips, from 50
to 55 feet bgs

At Time of Drilling,
Depth to Uppermost Ground Water
~ 57.5-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

16/30 washed silica sand,
2-feet above screen
from 55 to 70 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 57 to 67 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

Well BAC-7 Schematic

Date Drawn
8/07/15

Design by

Drawn by

MS

Scale

Last Revision
Date



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: BAC-8

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Project No.: 203709098

Completion Date: 2019-04-29

Driller: Ryan Miller

Logged by: Rich Pratt

Depth to Water at Drilling: 67 feet

Depth to Water at Drilling (static at 24 hours):
45.59 feet

BAC-8

Interval (feet)	Description
0 - 1	Light brown fine-grained sand with clay, dry
1 - 13	Light brown clay with silt, dry
13 - 17	Light brown fine-grained sand with clay, dry
17 - 18	Light brown clay with sand, moist
18 - 19	Medium brown sand, saturated
19 - 21	Light brown clay with sand, moist
21 - 27	Light brown clay with sand, dry
27 - 28	Brown with red clay, moist
28 - 31	Brown clay, moist
31 - 34	Gray clay, moist
34 - 43	Brown clay, moist
43 - 56	Medium brown medium-grained sand, moist
56 - 56.5	Medium brown medium-grained sand with pebbles, moist
56.5 - 57	Medium brown medium-grained sand, moist
57 - 63	Brown clay, moist
63 - 65	Medium brown fine-grained sand, moist
65 - 66.5	Brown clay, moist
66.5 - 67	Medium brown fine-grained sand, moist
67 - 68	Medium brown fine-grained sand, saturated
68 - 69.5	Medium brown fine-grained sand
69.5 - 77	Red and brown clay

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-52.62 feet

Screen (6 inch, 0.02 slotted, PVC): 52.62-77.62 feet

Sand Pack: 16/30 sand, 47.62-77.62 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
40.62-47.62 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 2.38 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 3.25 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 80 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 40.62 feet below ground surface (bgs)

10-inch boring from 0 to 77.62-feet bgs

Medium bentonite chips From 40.62 to 47.62 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 47.62 to 77.62 feet bgs)

At Time of Drilling, Depth to Uppermost Ground Water ~ 67 feet bgs

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 52.62 to 77.62 feet bgs

Total Depth (TD) = 77.62 feet bgs



ISPC BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

BAC-8 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: BAC-9

Project No.: 203709098

Completion Date: 2019-05-1

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Driller: Ryan Miller

Logged by: John Russell

Depth to Water at Drilling: 60 feet

Depth to Water at Drilling (static at 24 hours):
44.82 feet

BAC-9

Interval (feet)	Description
0 - 10	Light gray to brown silt with clay to clay with silt, dry
10 - 20	Light gray to brown silt, dry
20 - 30	Light brown silt, dry
30 - 44	Light brown silt, dry
44 - 50	Medium brown clay, dry
50 - 54	Light brown silt to clay with silt, moist
54 - 54.5	Medium brown silt with clay, moist
54.5 - 60	Light brown clay with silt, moist
60 - 77	Medium brown silt with clay and silt stringers, saturated

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-53.11 feet

Screen (6 inch, 0.02 slotted, PVC): 53.11-78.11 feet

Sand Pack: 16/30 sand, 48.11-78.11 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
41.11-48.11 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 1.98 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 2.57 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 78.11 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 41.11 feet below ground surface (bgs)

10-inch boring from 0 to 78.11-feet bgs

Medium bentonite chips From 41.11 to 48.11 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 48.11 to 78.11 feet bgs)

At Time of Drilling, Depth to Uppermost Ground Water ~ 60 feet bgs

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 53.11 to 78.11 feet bgs

Total Depth (TD) = 78.11 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

BAC-9 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: BAC-10

Project No.: 203709098

Completion Date: 2019-05-3

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Driller: Ryan Miller

Logged by: Rich Pratt

Depth to Water at Drilling: 69 feet

Depth to Water at Drilling (static at 24 hours): 63.1 feet

BAC-10

Interval (feet)	Description
0 - 1	Light brown silt, dry
1 - 3	Light brown silt with clay, dry
3 - 14	Light brown clay with silt, dry
14 - 17	Light brown fine-grained sand, dry
17 - 19	Light brown fine-grained sand with clay, moist
19 - 21	Light brown fine-grained sand with clay, moist
21 - 23	Light brown fine-grained sand, moist
23 - 25	Light brown fine-grained sand with clay, moist
25 - 26	Light brown fine-grained sand, moist
26 - 27	Light brown fine-grained sand with clay, moist
27 - 28	Light brown fine-grained sand, moist to moist
27 - 34	Light brown fine-grained sand, moist
34 – 34.5	Light brown silt with clay, dry
34.5 – 40.5	Red brown clay, dry
40.5 - 41	Medium brown medium grained sand, moist to moist
41 - 45	Medium brown clay, moist
45 - 46	Medium brown sand, moist to moist
46 - 48	Medium brown clay, moist
48 – 56.5	Red brown clay, moist
56.5 - 57	Gray clay, moist
57 - 62	Light brown clay, moist to moist
62 - 63	Medium brown medium grained sand, moist
63 - 64	Medium brown medium grained sand with clay, moist
64 - 69	Red, brown, and gray clay, moist
69 – 69.5	Medium brown sand, saturated
69.5 - 77	Red, brown, and gray clay
77 - 79	Medium brown clay with sand
79 - 81	Medium brown clay
81 - 85	Medium brown clay with sand

85 - 87	Medium brown clay, moist
---------	--------------------------

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-62.95 feet

Screen (6 inch, 0.02 slotted, PVC): 62.95-87.95 feet

Sand Pack: 16/30 sand, 57.95-87.95 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
50.95-57.95 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 2.15 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 3.0 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 90.10 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 50.95 feet below ground surface (bgs)

10-inch boring from 0 to 87.95-feet bgs

Medium bentonite chips From 50.95 to 57.95 feet bgs

At Time of Drilling, Depth to Uppermost Ground Water ~ 69 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 57.95 to 87.95 feet bgs)

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 62.95 to 87.95 feet bgs

Total Depth (TD) = 87.95 feet bgs



IPSC – BOTTOM ASH SURFACE IMPOUNDMENT
DELTA, UTAH

BAC-10 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date



MONITORING WELL ID: **BAC-11**

CLIENT Intermountain Power Service Corporation

PROJECT Monitoring Well Installation

SITE LOCATION Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

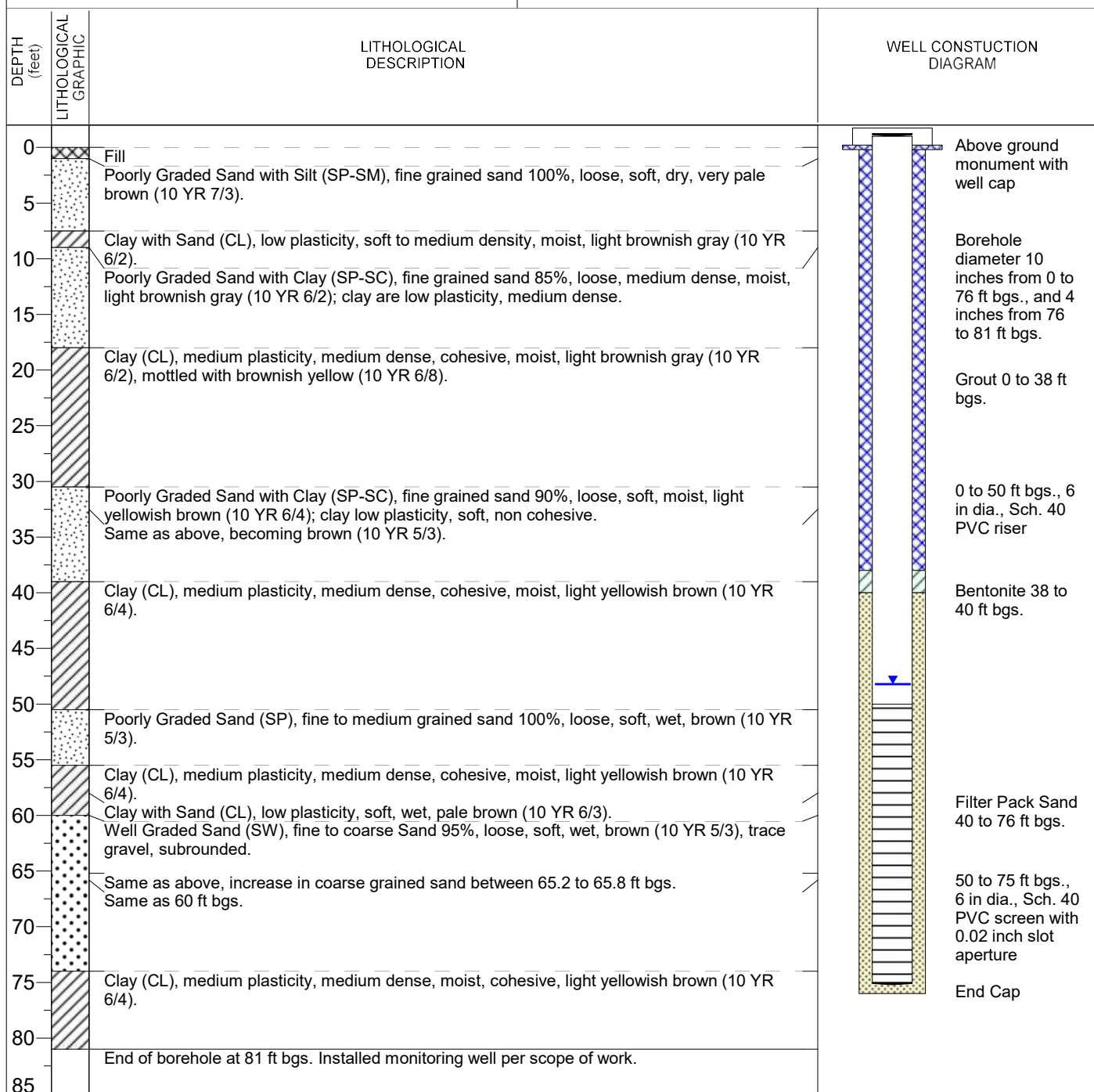
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 81

GROUNDWATER LEVEL (ft. btoc.): 48.21

DATE STARTED: 12/6/2019 DATE FINISHED: 12/7/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-12**

CLIENT Intermountain Power Service Corporation

PROJECT Monitoring Well Installation

SITE LOCATION Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

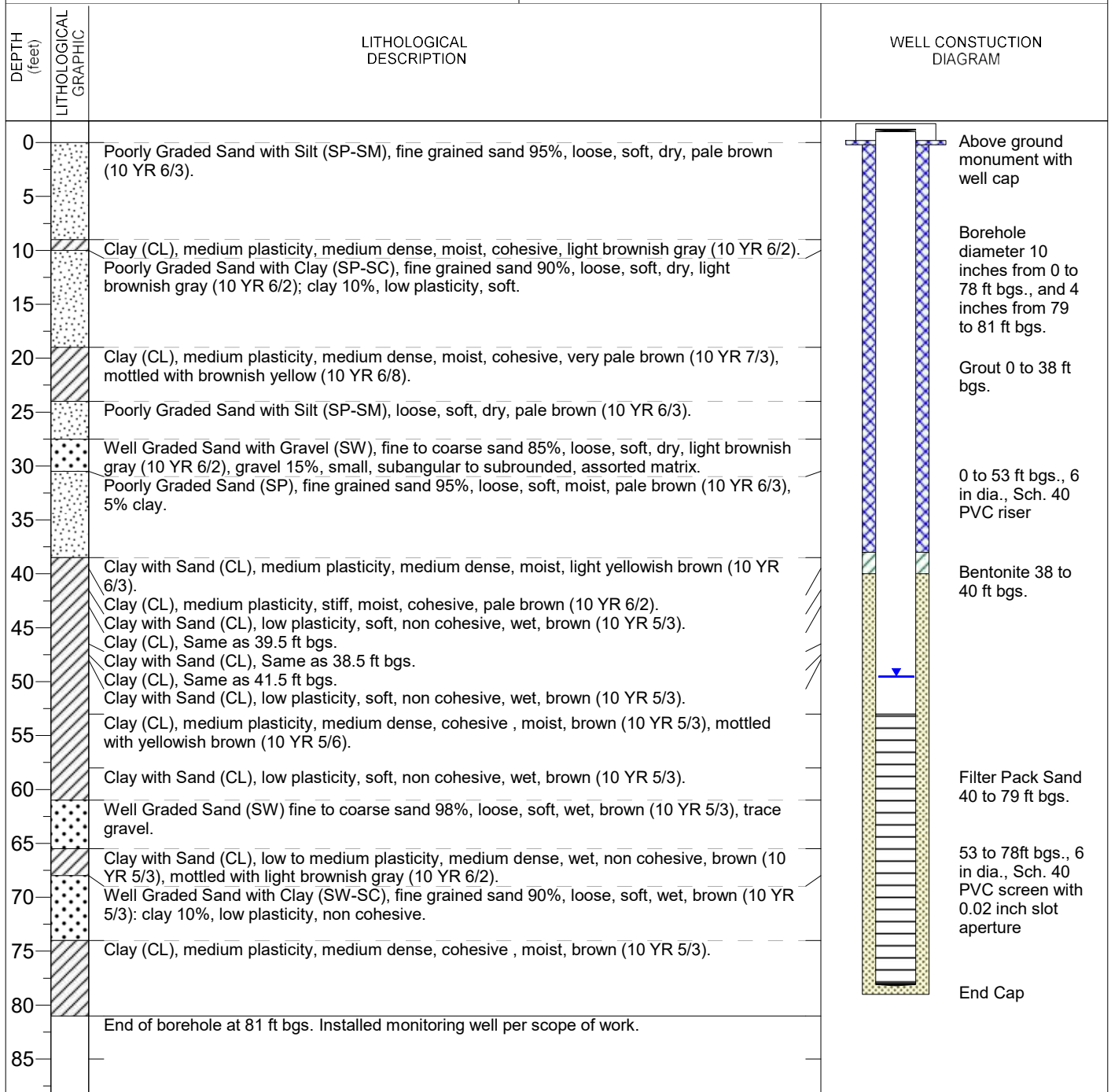
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 81

GROUNDWATER LEVEL (ft. btoc.): 49.55

DATE STARTED: 12/4/2019 DATE FINISHED: 12/6/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-13**

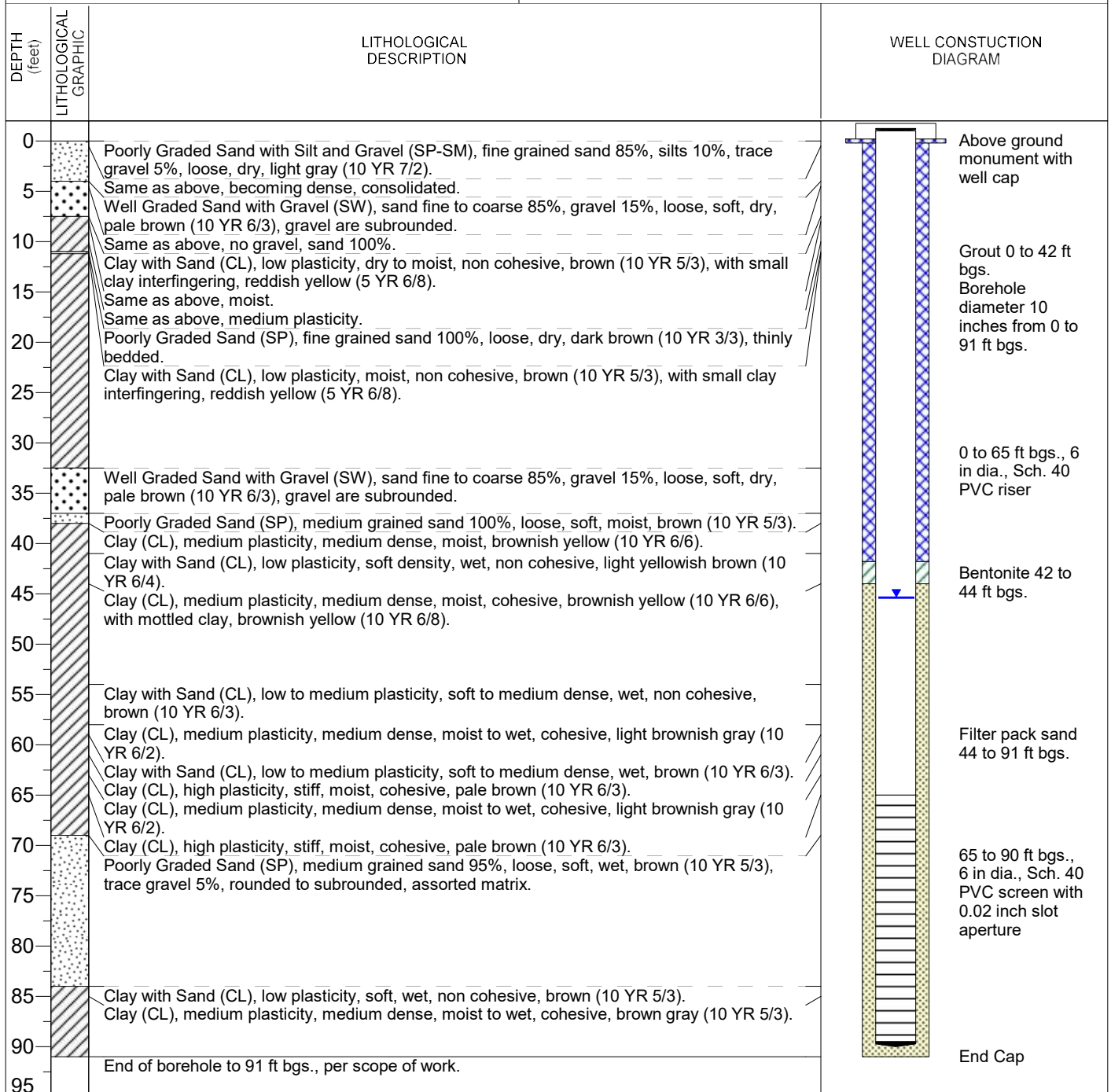


CLIENT: Intermountain Power Service Corporation
 PROJECT: Monitoring Well Installation
 SITE LOCATION: Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling
 DRILLING METHOD: Sonic
 DRILLING EQUIPMENT: Pro Sonic 600 11-77287
 SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
 10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:
 EASTING: NORTHING:
 ELEVATION: BOREHOLE ANGLE: 90 degrees
 TOTAL DEPTH (ft.): 91 GROUNDWATER LEVEL (ft. btoc.): 45.38
 DATE STARTED: 11/16/2019 DATE FINISHED: 11/18/2019
 LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
 dia. = diameter YR = Yellow-Red
 ft = feet

MONITORING WELL ID: **BAC-14**

CLIENT Intermountain Power Service Corporation

PROJECT Monitoring Well Installation

SITE LOCATION Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 81 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

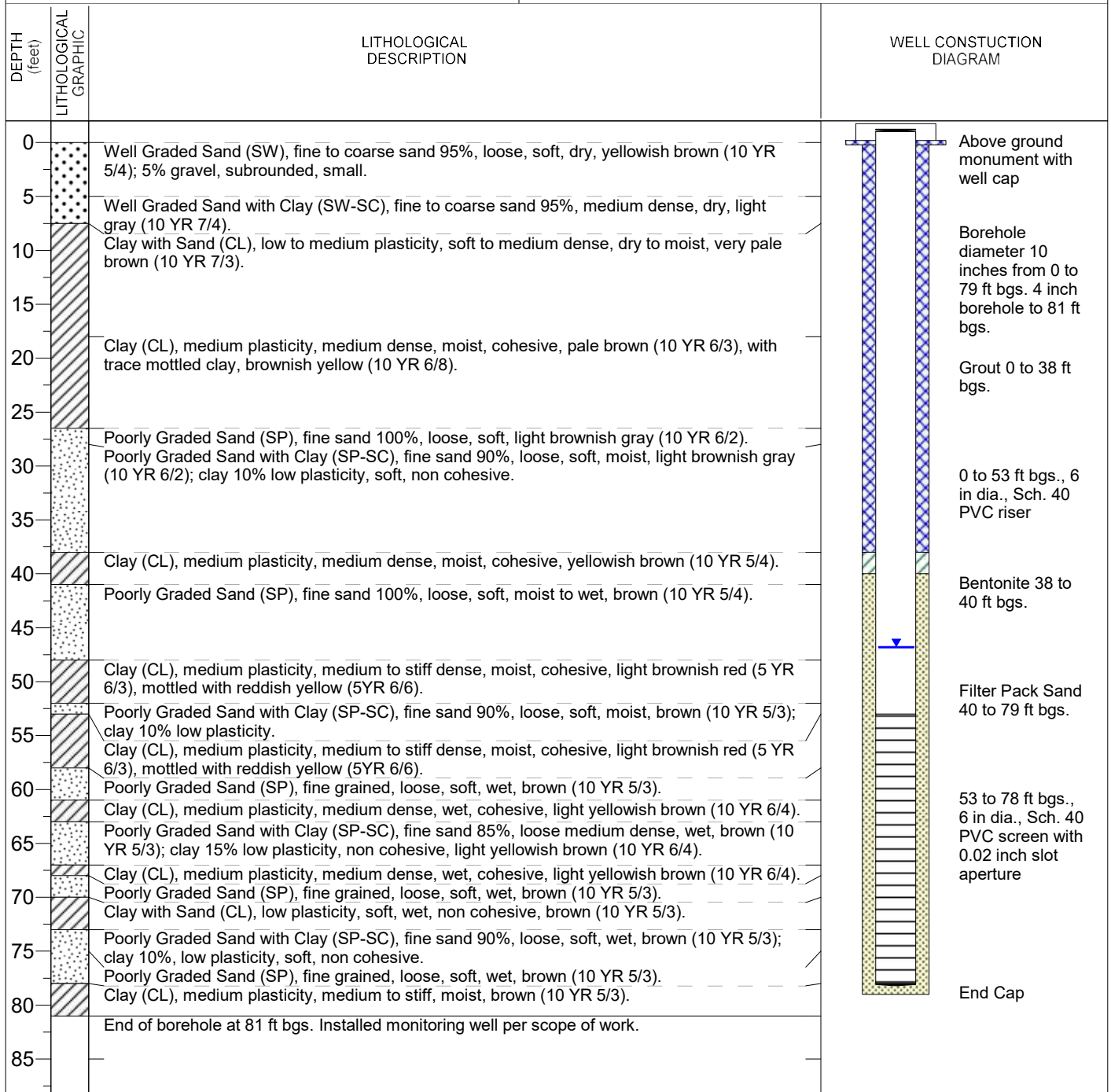
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 81

GROUNDWATER LEVEL (ft. btoc.): 46.81

DATE STARTED: 11/21/2019 DATE FINISHED: 12/4/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-15**



CLIENT: Intermountain Power Service Corporation
 PROJECT: Monitoring Well Installation
 SITE LOCATION: Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
 10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

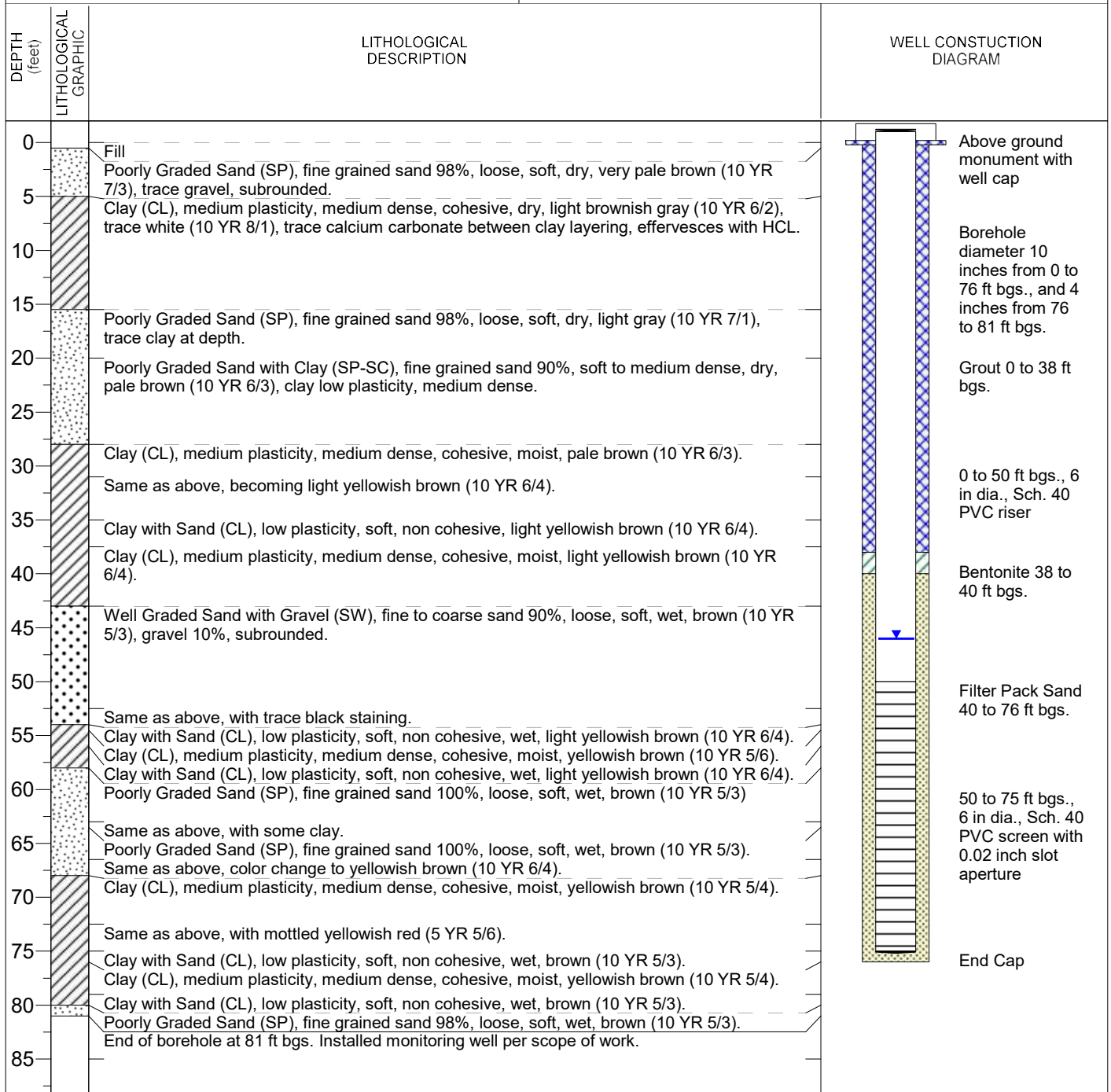
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 81

GROUNDWATER LEVEL (ft. btoc.): 46.03

DATE STARTED: 12/7/2019 DATE FINISHED: 12/9/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
 dia. = diameter YR = Yellow-Red
 ft = feet



MONITORING WELL ID: **BAC-16**

CLIENT Intermountain Power Service Corporation

PROJECT Monitoring Well Installation

SITE LOCATION Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

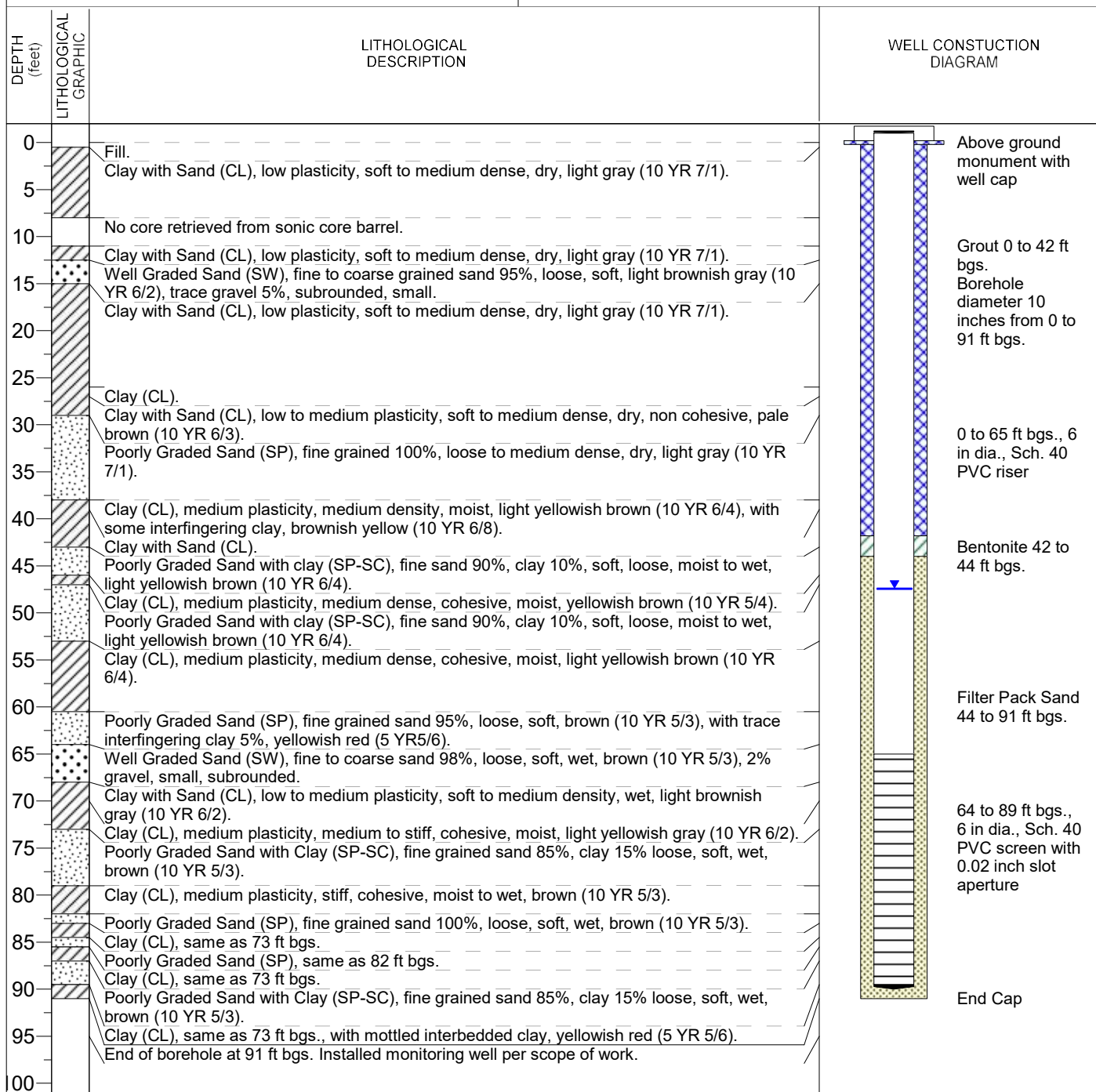
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 91

GROUNDWATER LEVEL (ft. btoc.): 47.45

DATE STARTED: 11/18/2019 DATE FINISHED: 11/21/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-17**

CLIENT Intermountain Power Service Corporation

PROJECT Monitoring Well Installation

SITE LOCATION Southwest of Bottom Ash Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

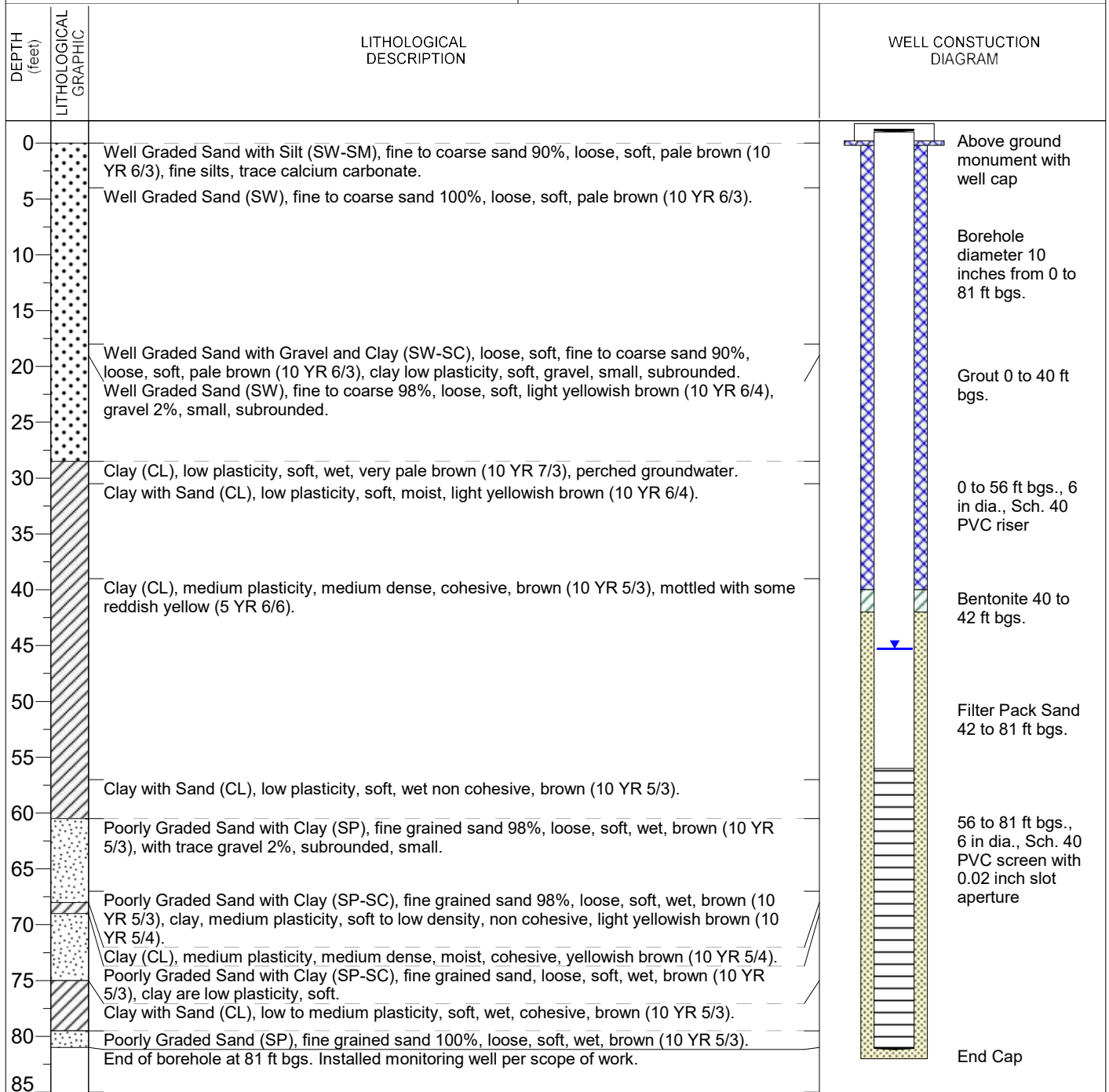
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 82

GROUNDWATER LEVEL (ft. btoc.): 45.3

DATE STARTED: 12/12/9/2019 DATE FINISHED: 12/10/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-18**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: Down Gradient North



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

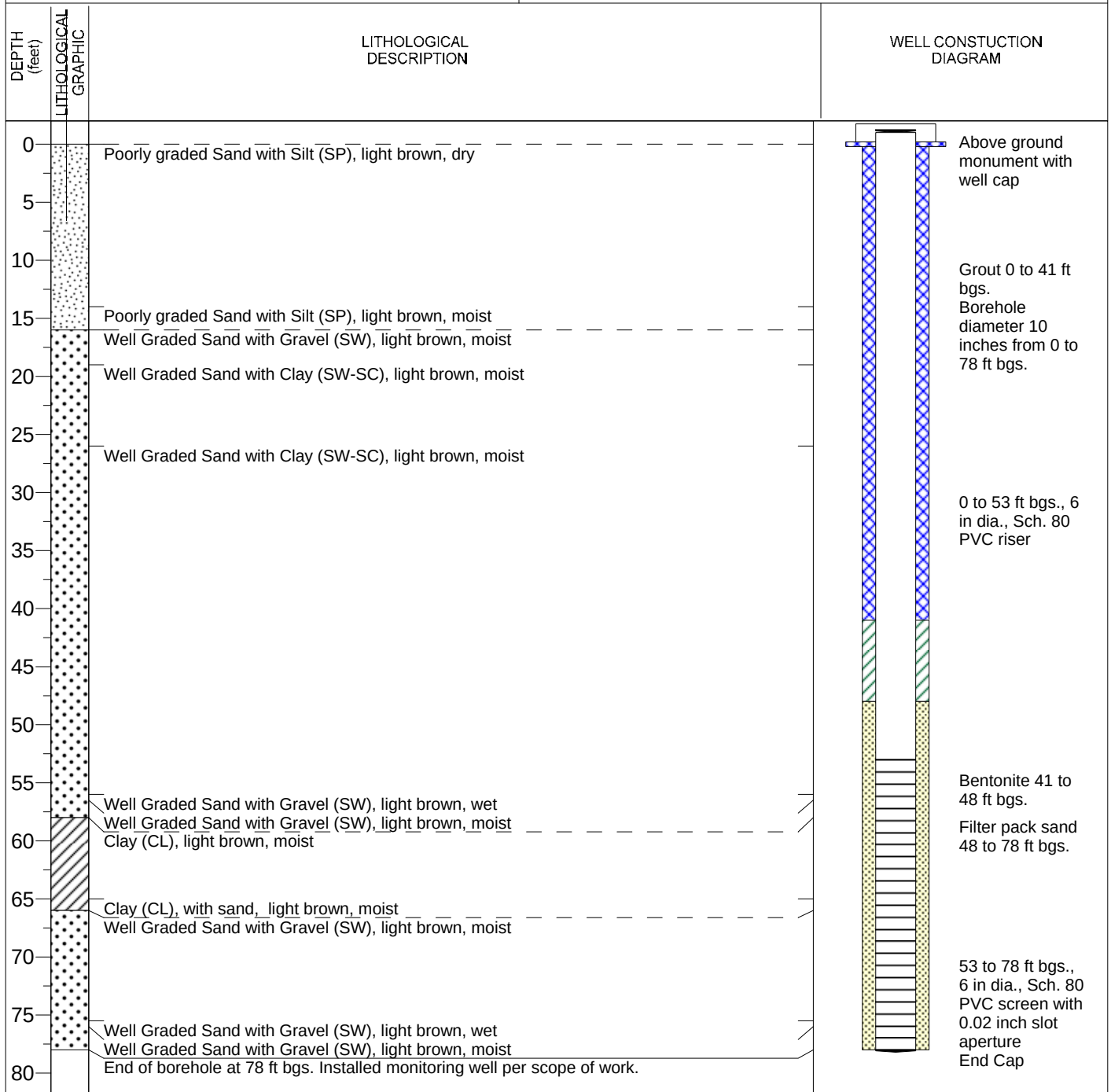
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/8/2020

DATE FINISHED: 5/9/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-19**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: Down Gradient South



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

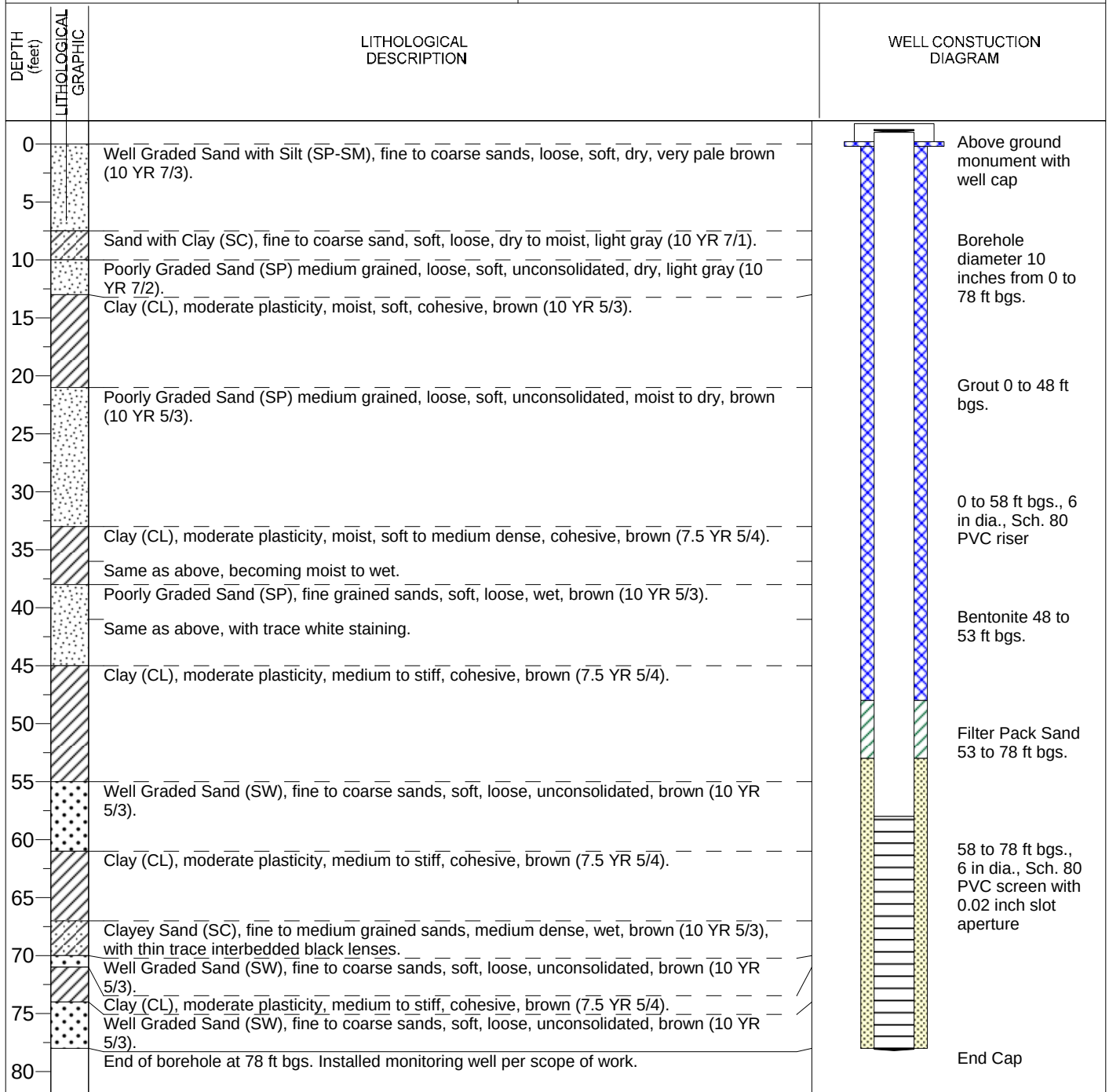
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/9/2020

DATE FINISHED: 5/9/2020

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-20**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

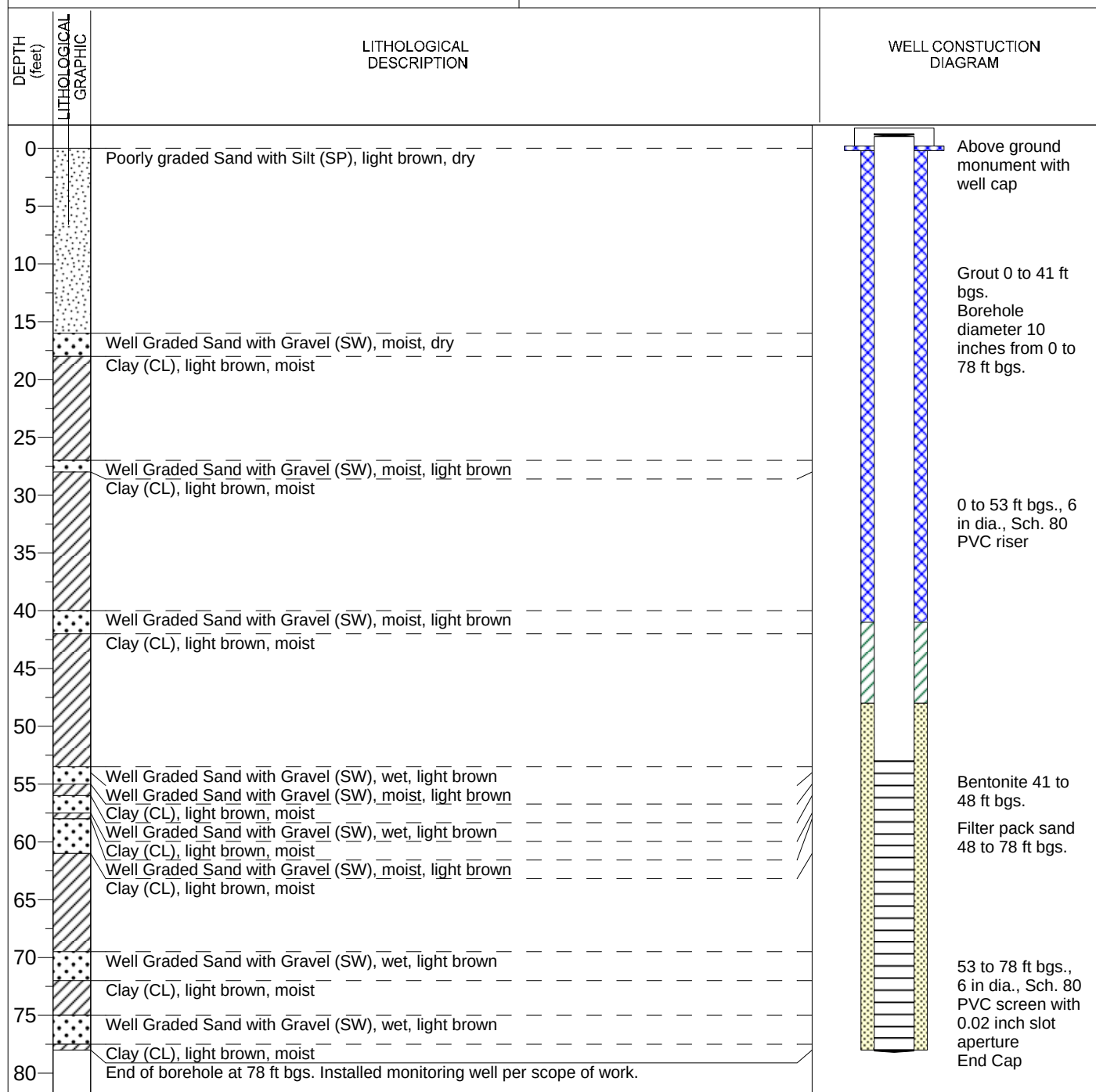
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/9/2020

DATE FINISHED: 5/10/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-21**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

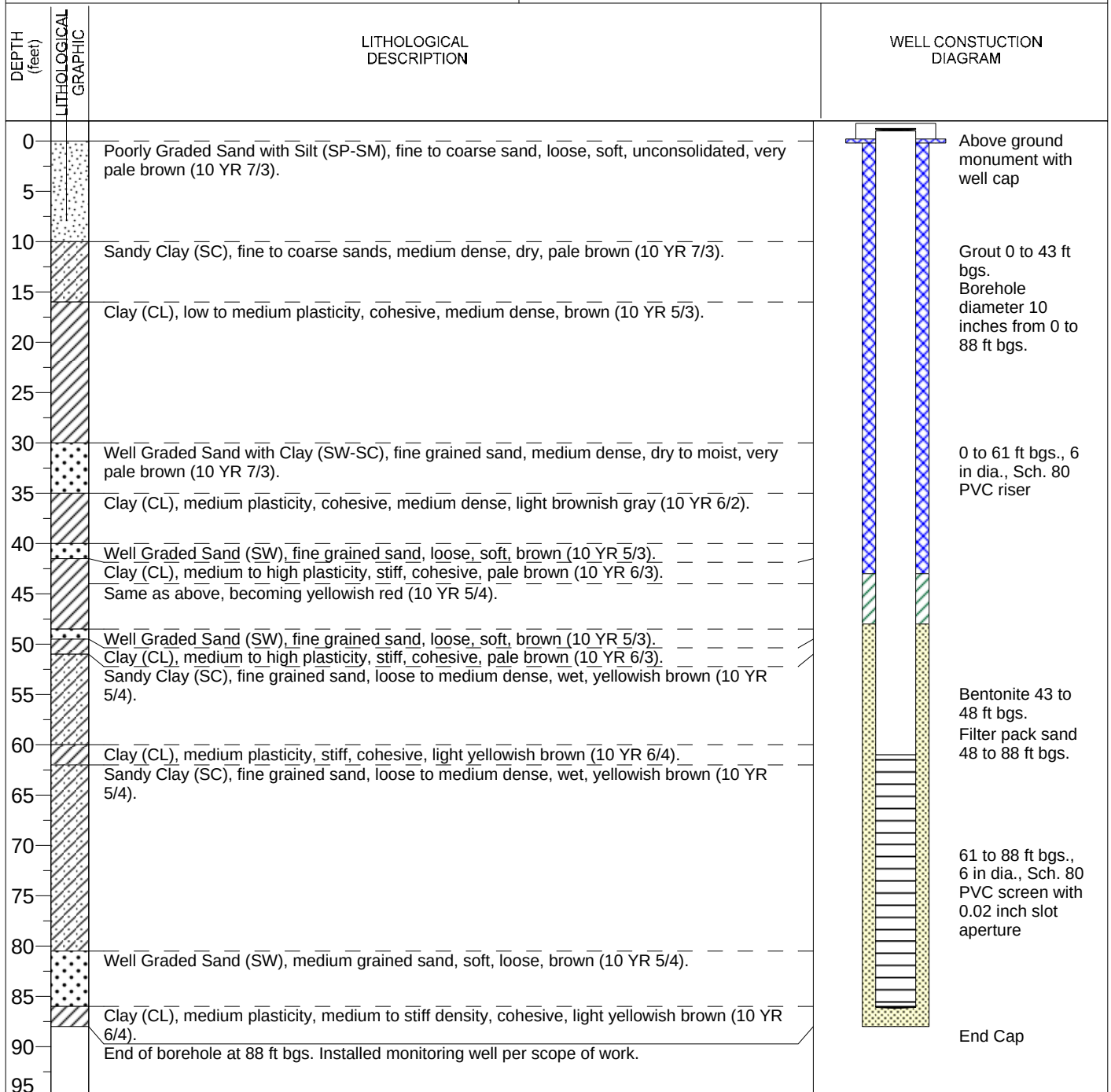
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 88

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/10/2020 DATE FINISHED: 5/10/2020

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-22**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

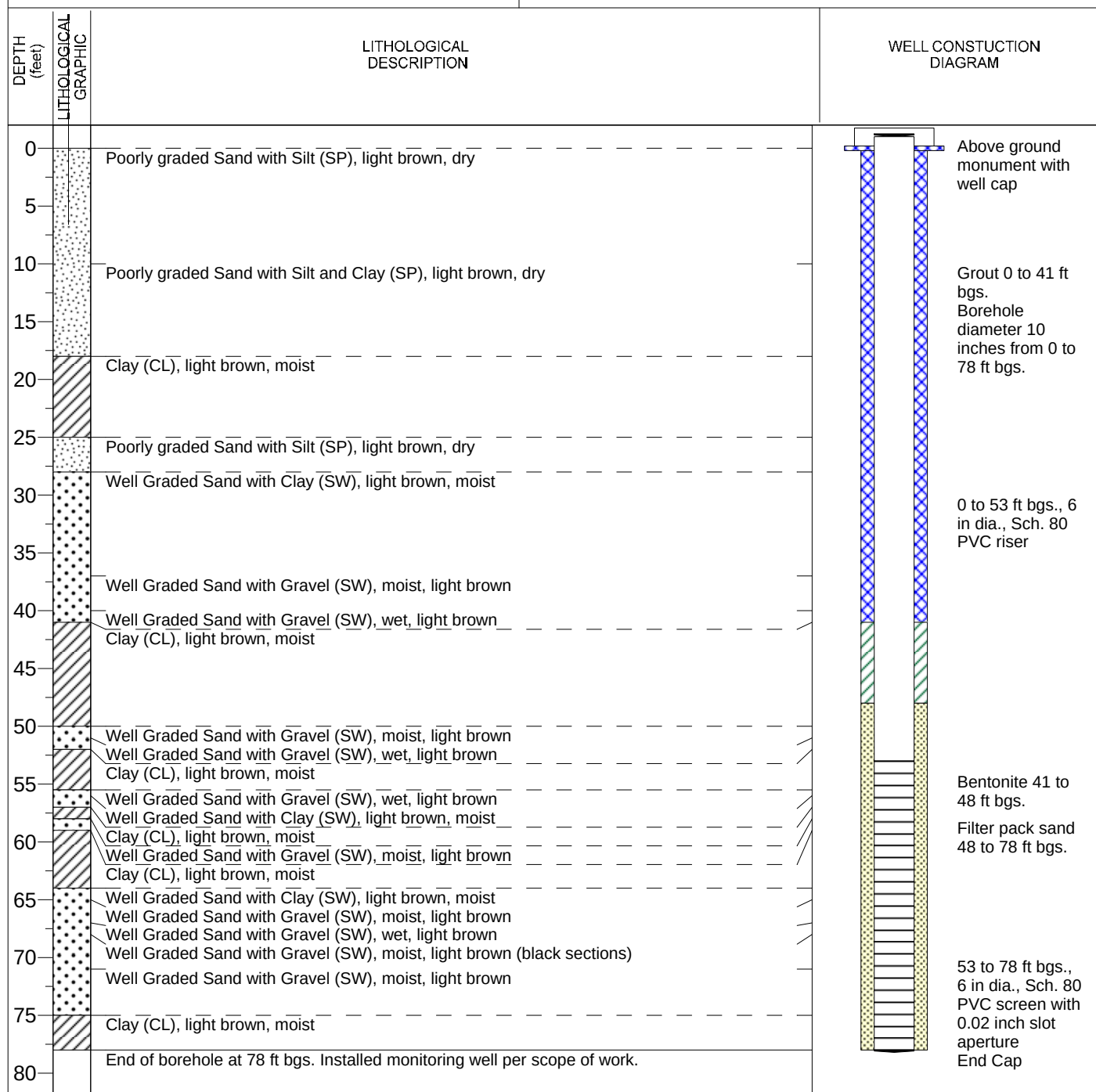
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/10/2020

DATE FINISHED: 5/10/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-24**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

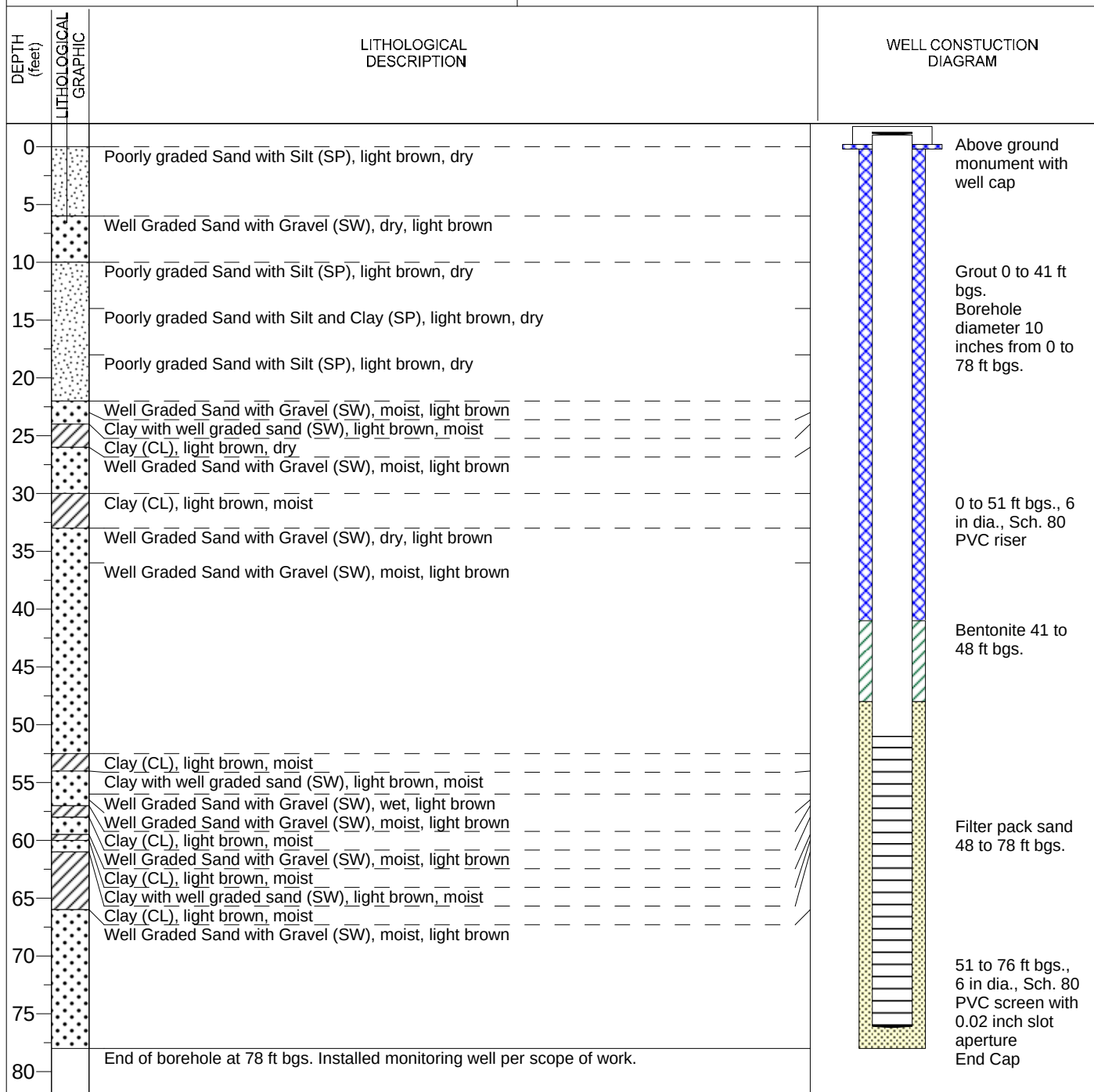
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 76.2

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/12/2020 DATE FINISHED: 5/12/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-25**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

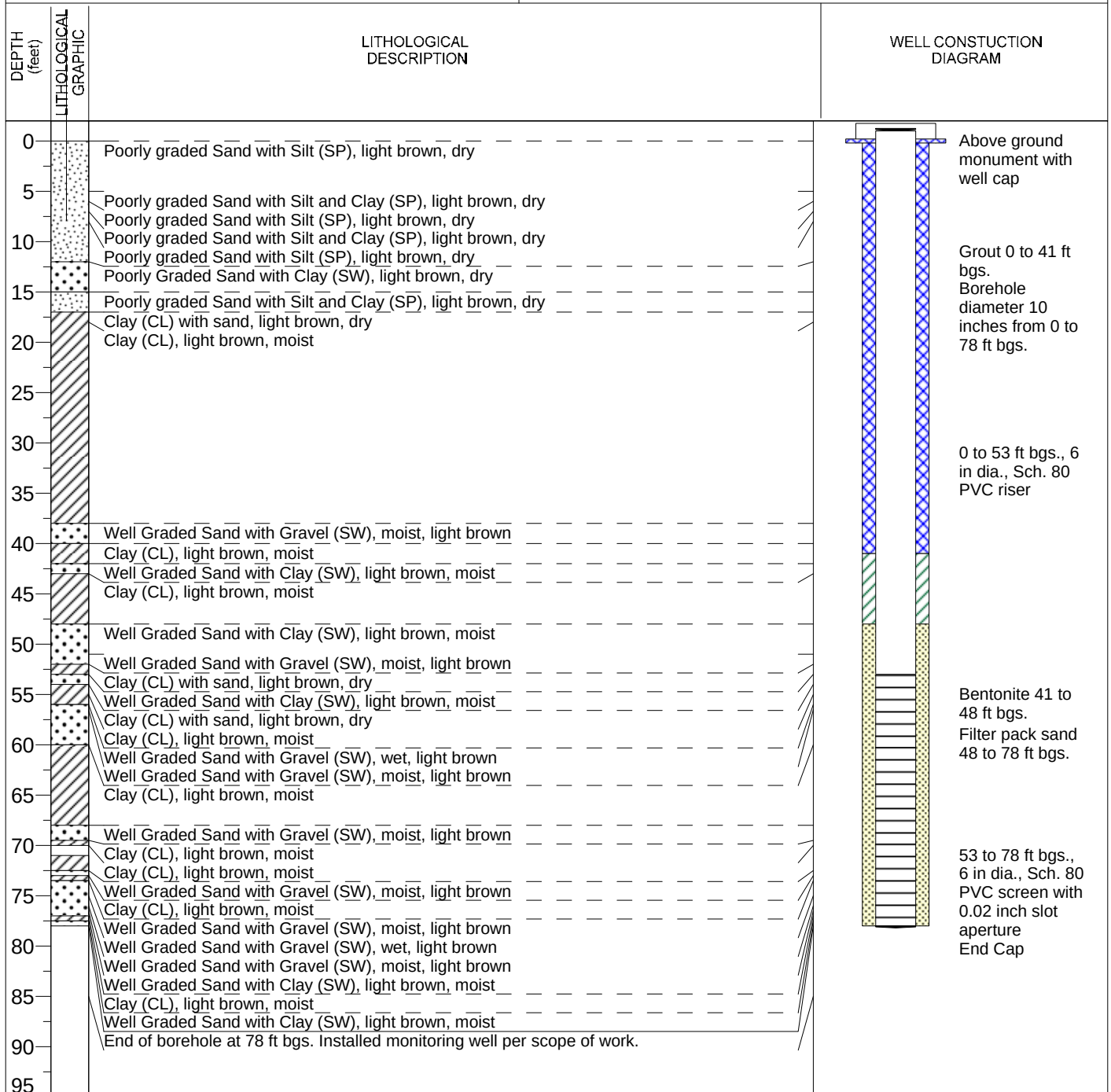
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/12/2020

DATE FINISHED: 5/12/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-26**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

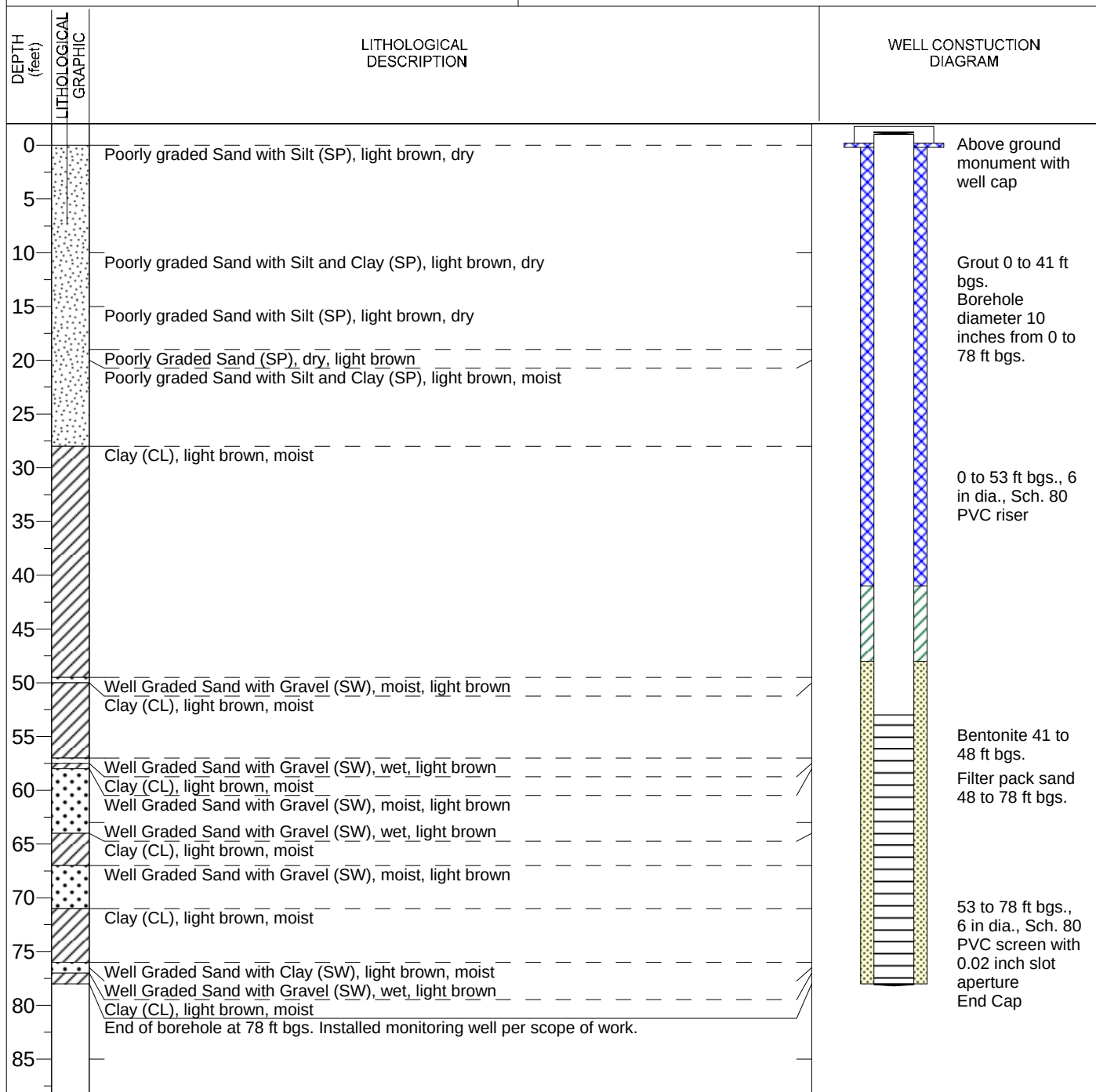
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/13/2020

DATE FINISHED: 5/13/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-27**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

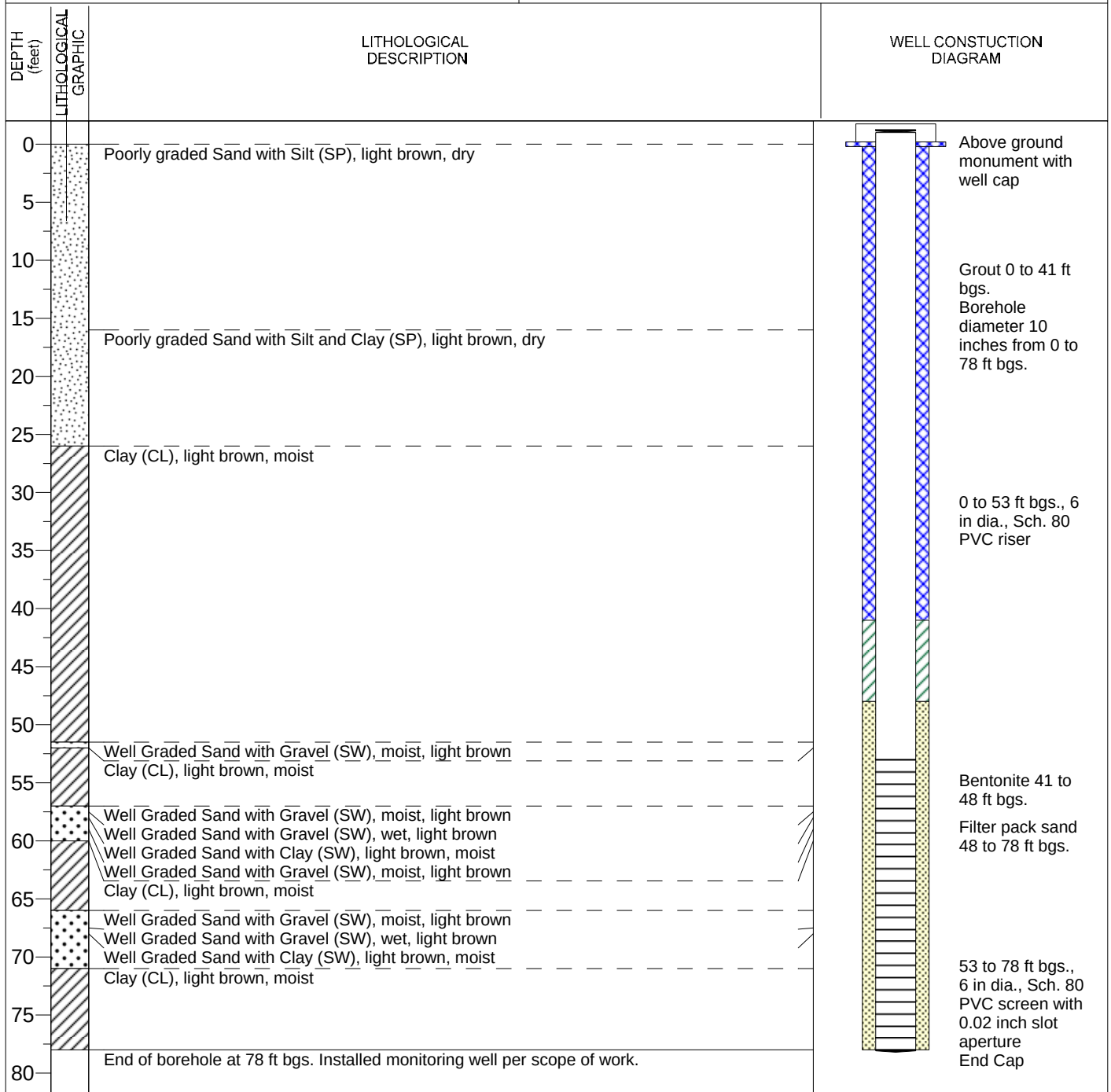
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/13/2020

DATE FINISHED: 5/13/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORNG WELL ID: **BAC-28**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

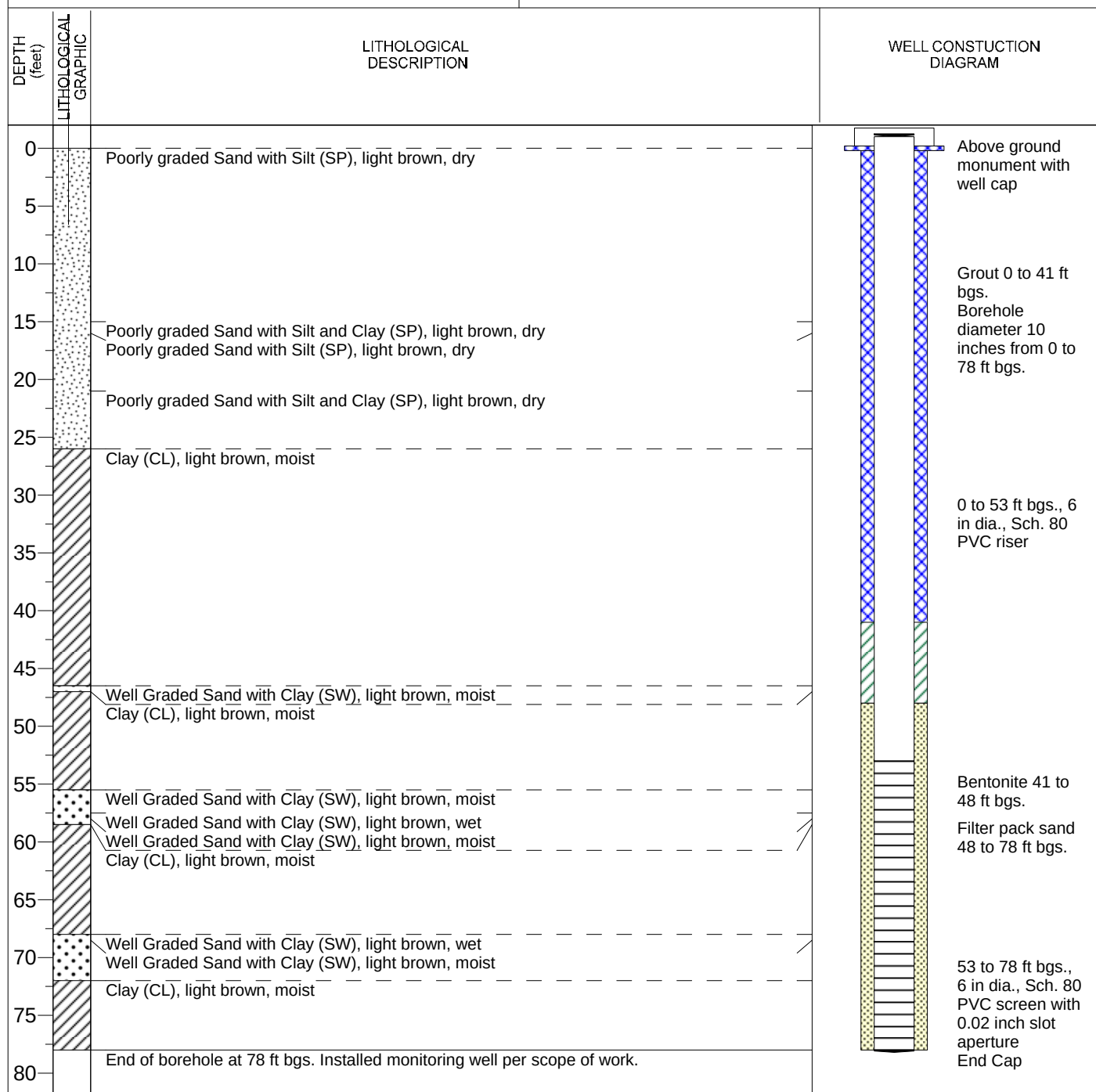
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/14/2020

DATE FINISHED: 5/14/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-29**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

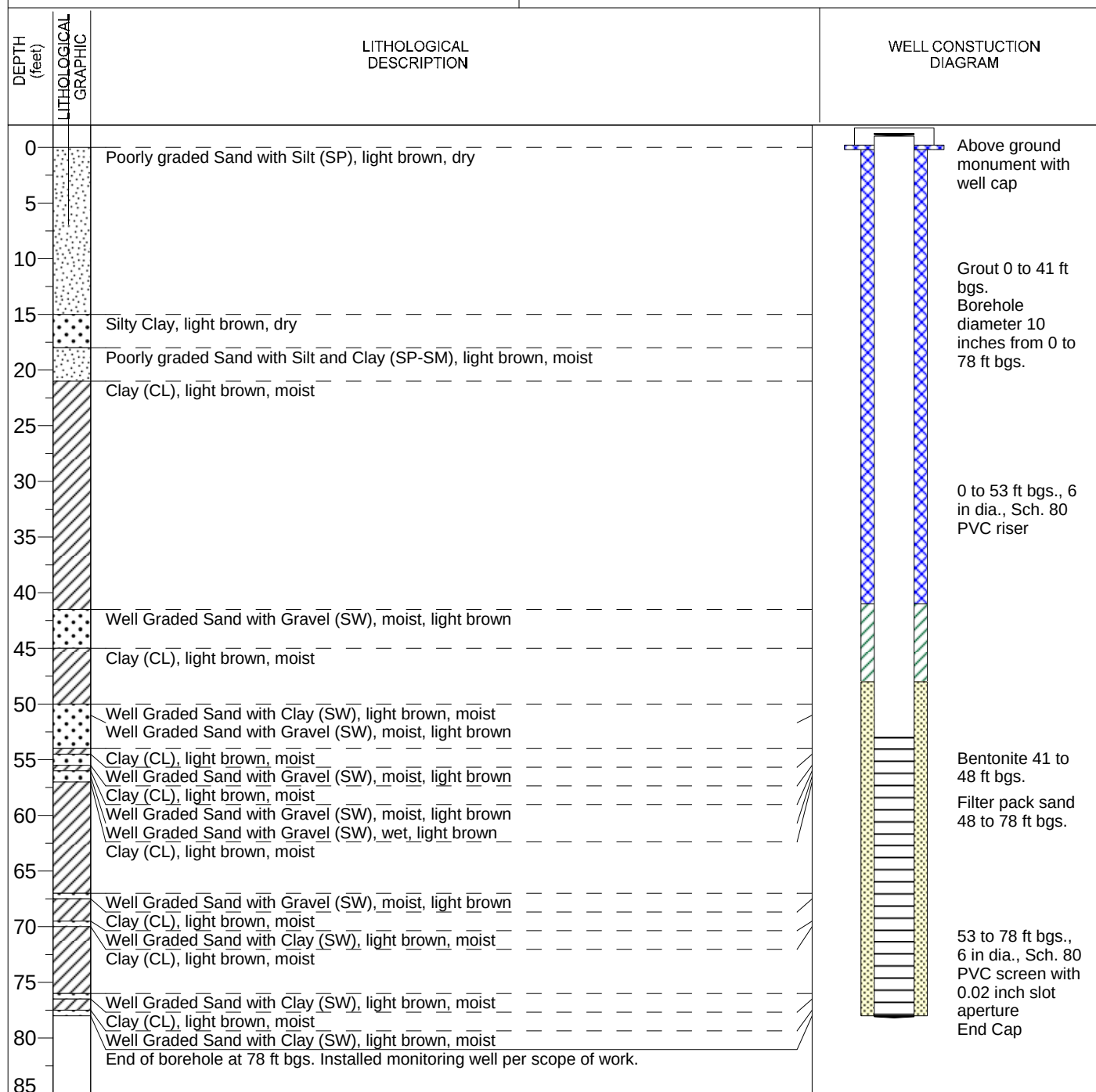
TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/15/2020

DATE FINISHED: 5/15/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-30**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

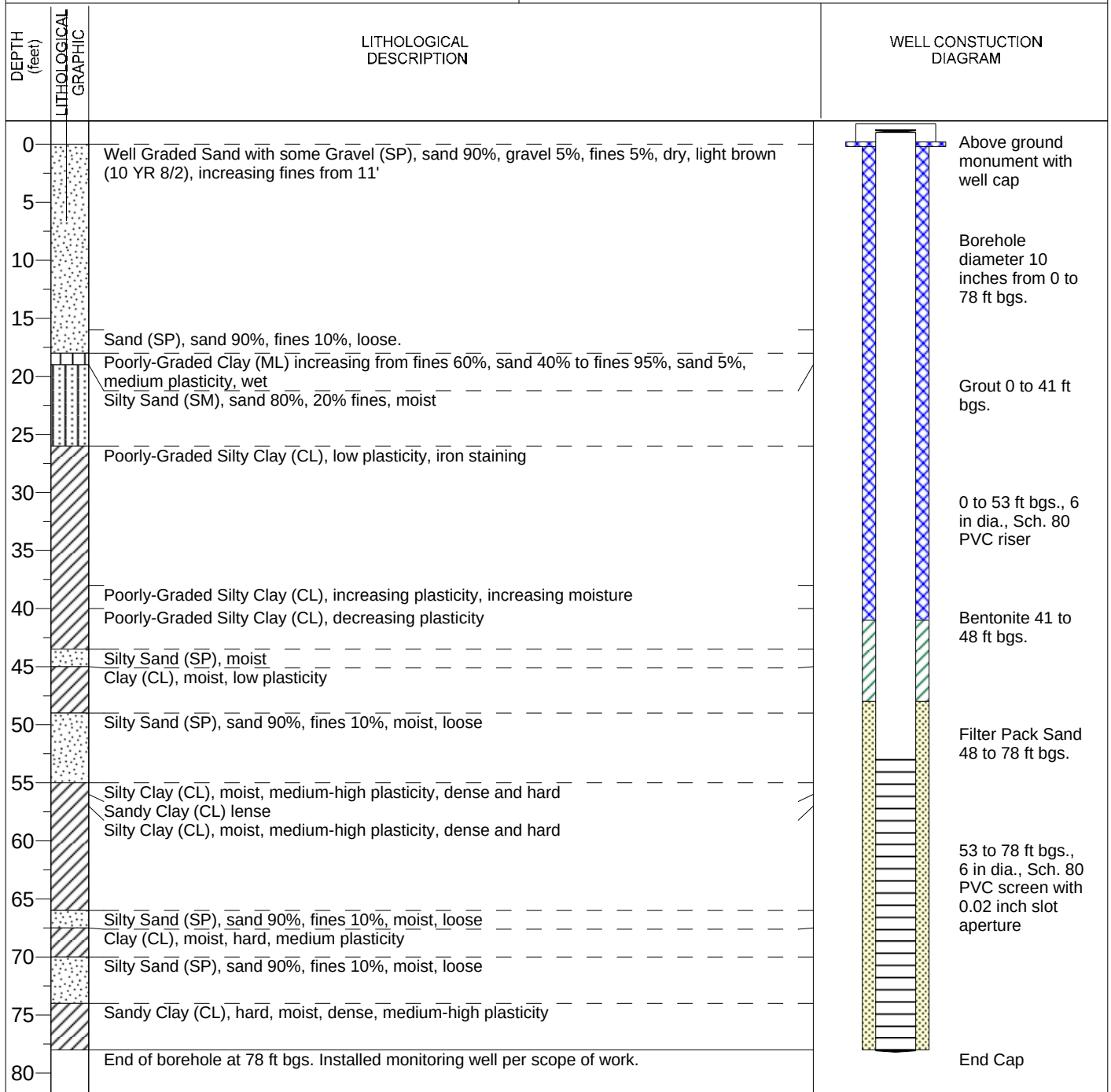
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/14/2020 DATE FINISHED: 5/15/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-31**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

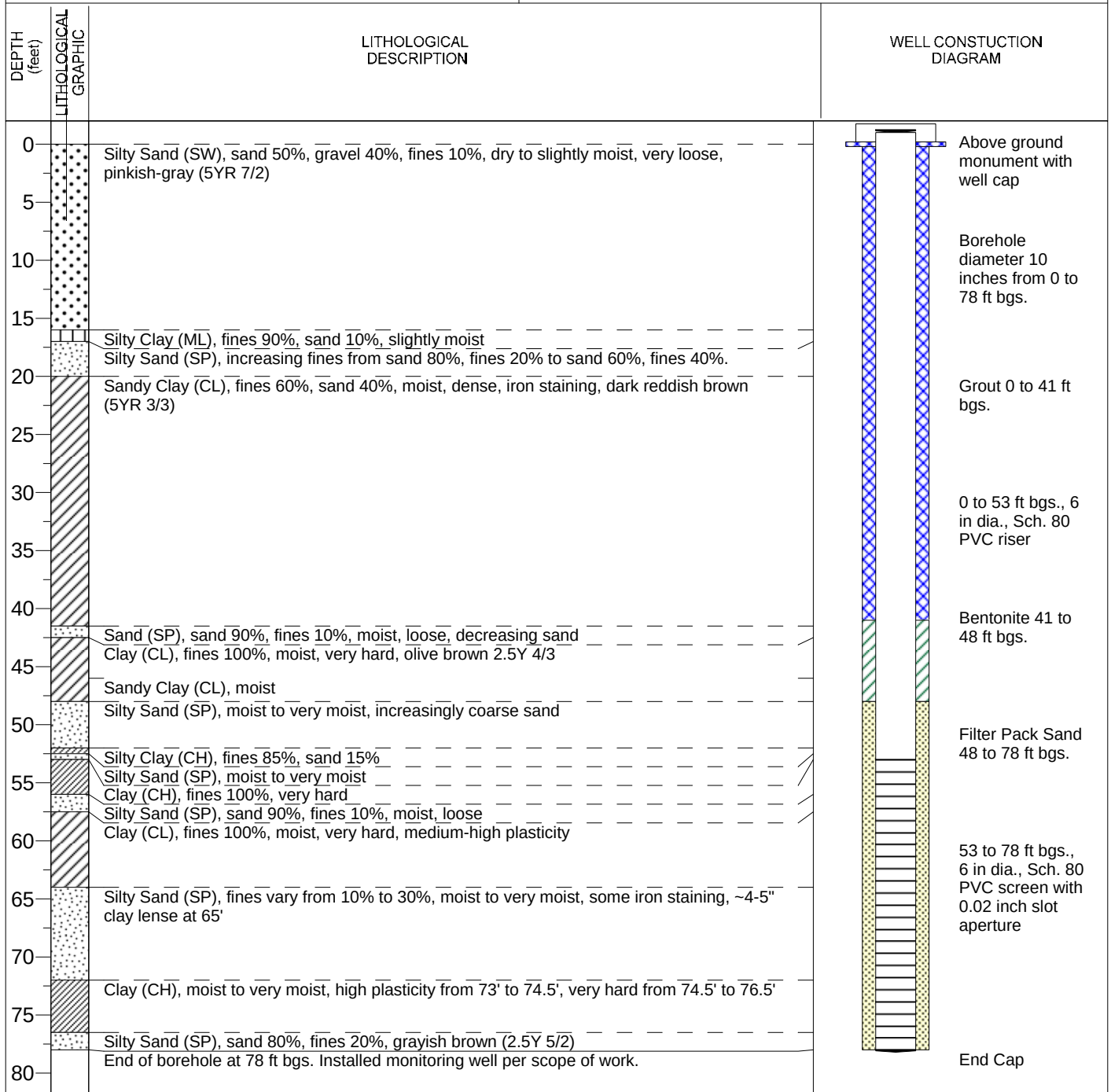
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/15/2020 DATE FINISHED: 5/18/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-32**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

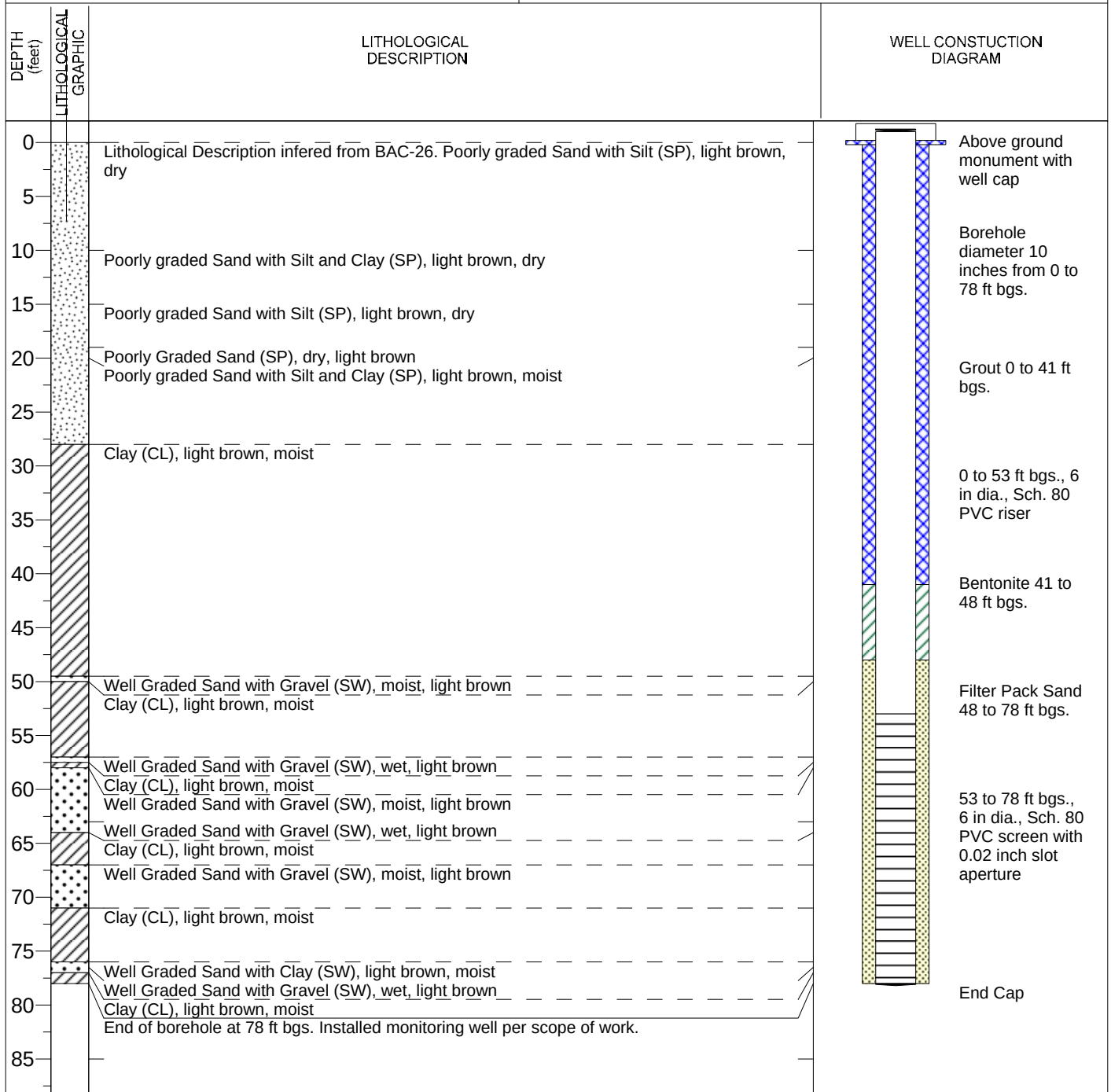
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/19/2020 DATE FINISHED: 5/19/2020

LOGGED BY: Not Available



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-33**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

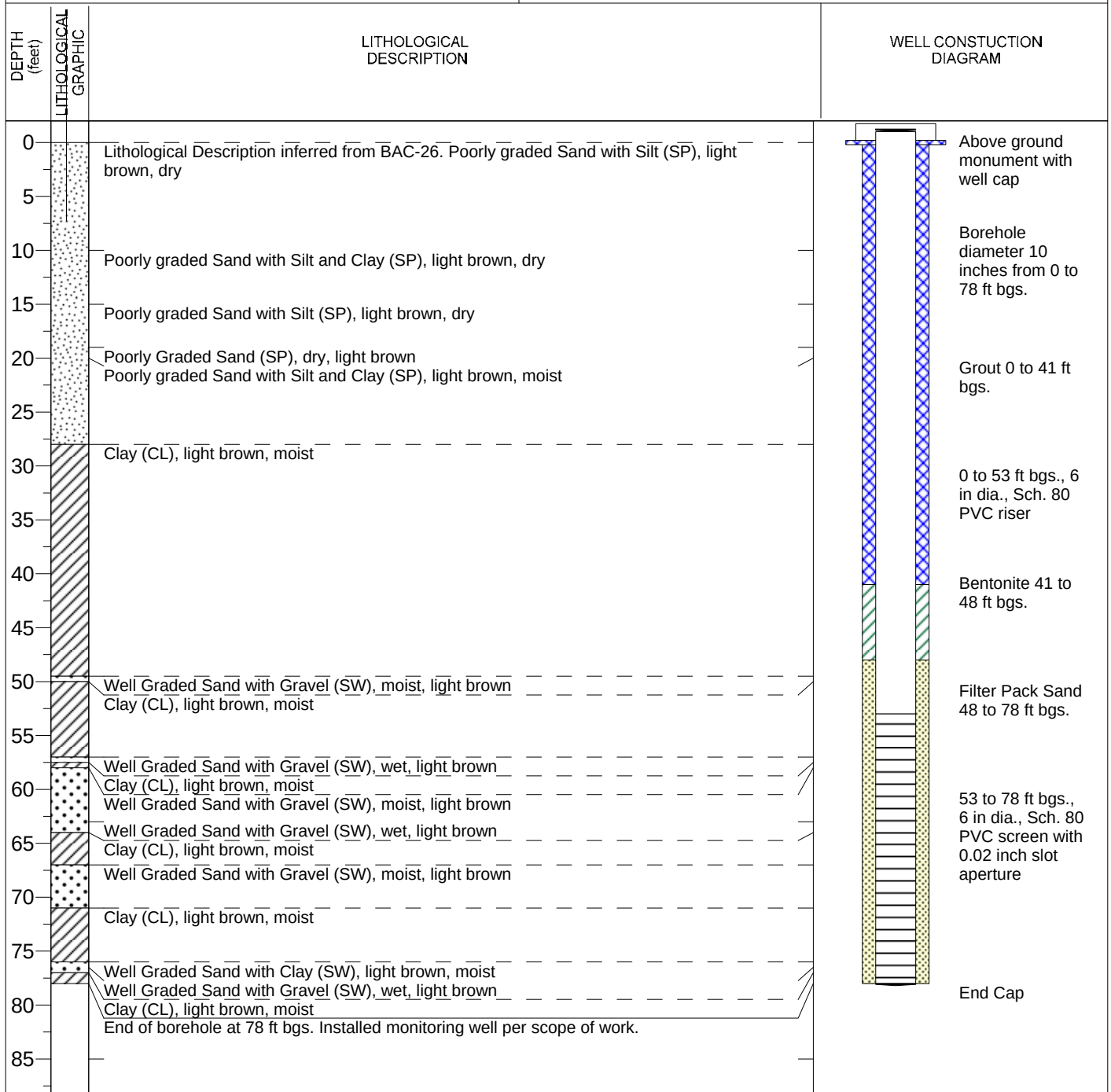
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/18/2020 DATE FINISHED: 5/18/2020

LOGGED BY: Not Available



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-34**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

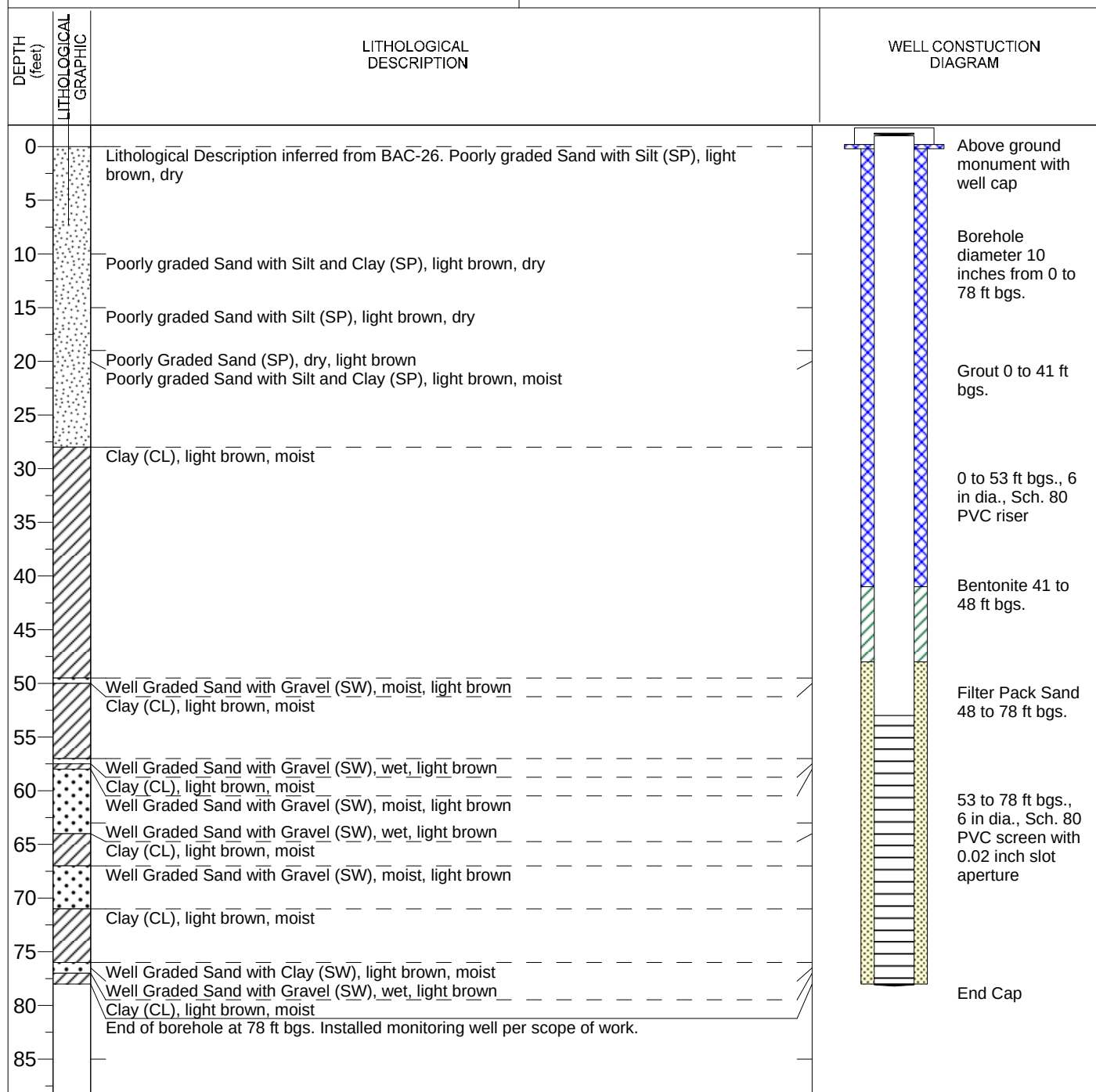
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/21/2020 DATE FINISHED: 5/21/2020

LOGGED BY: Not Available



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-35**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: North Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

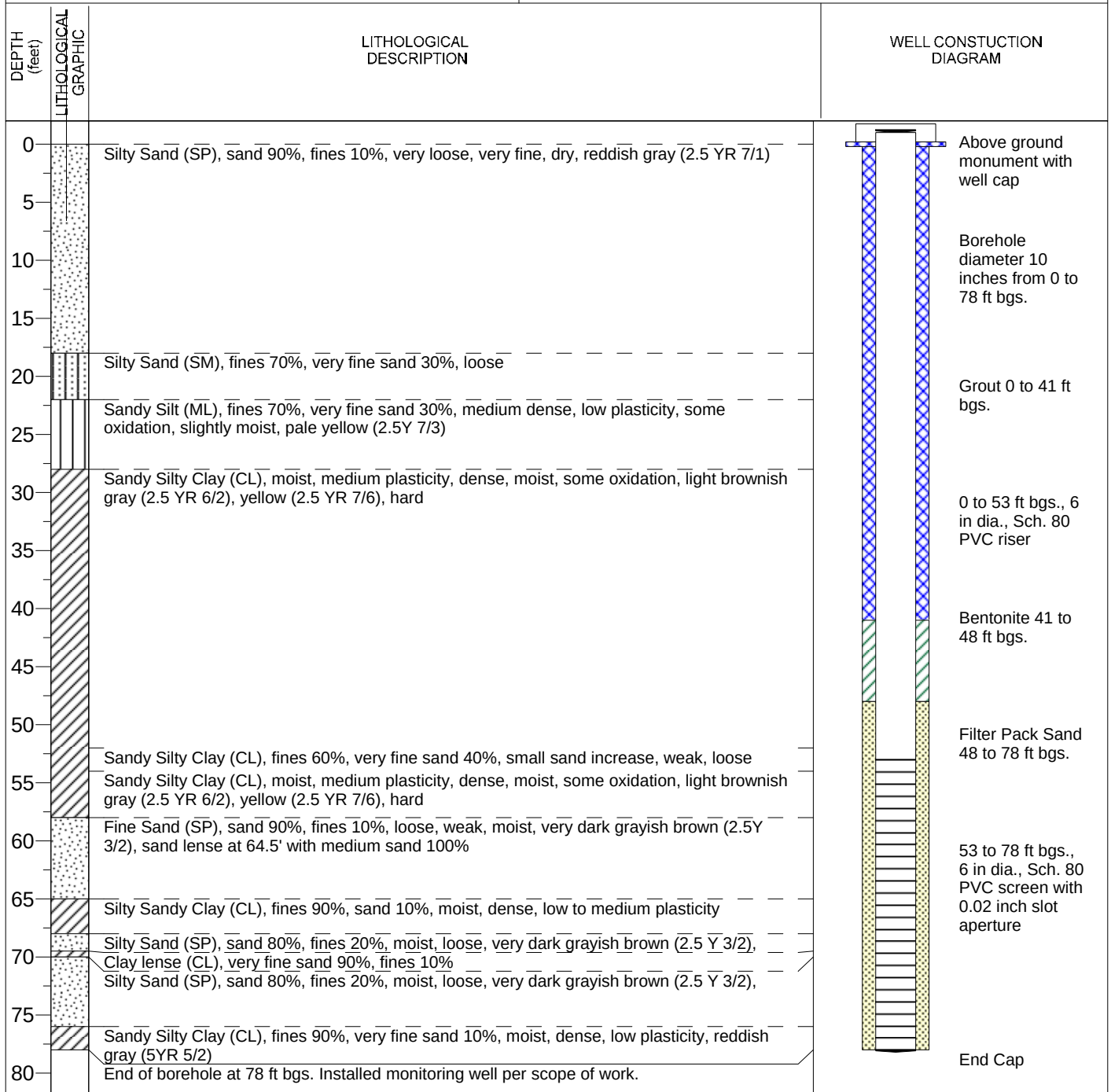
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/28/2020 DATE FINISHED: 5/29/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-36**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

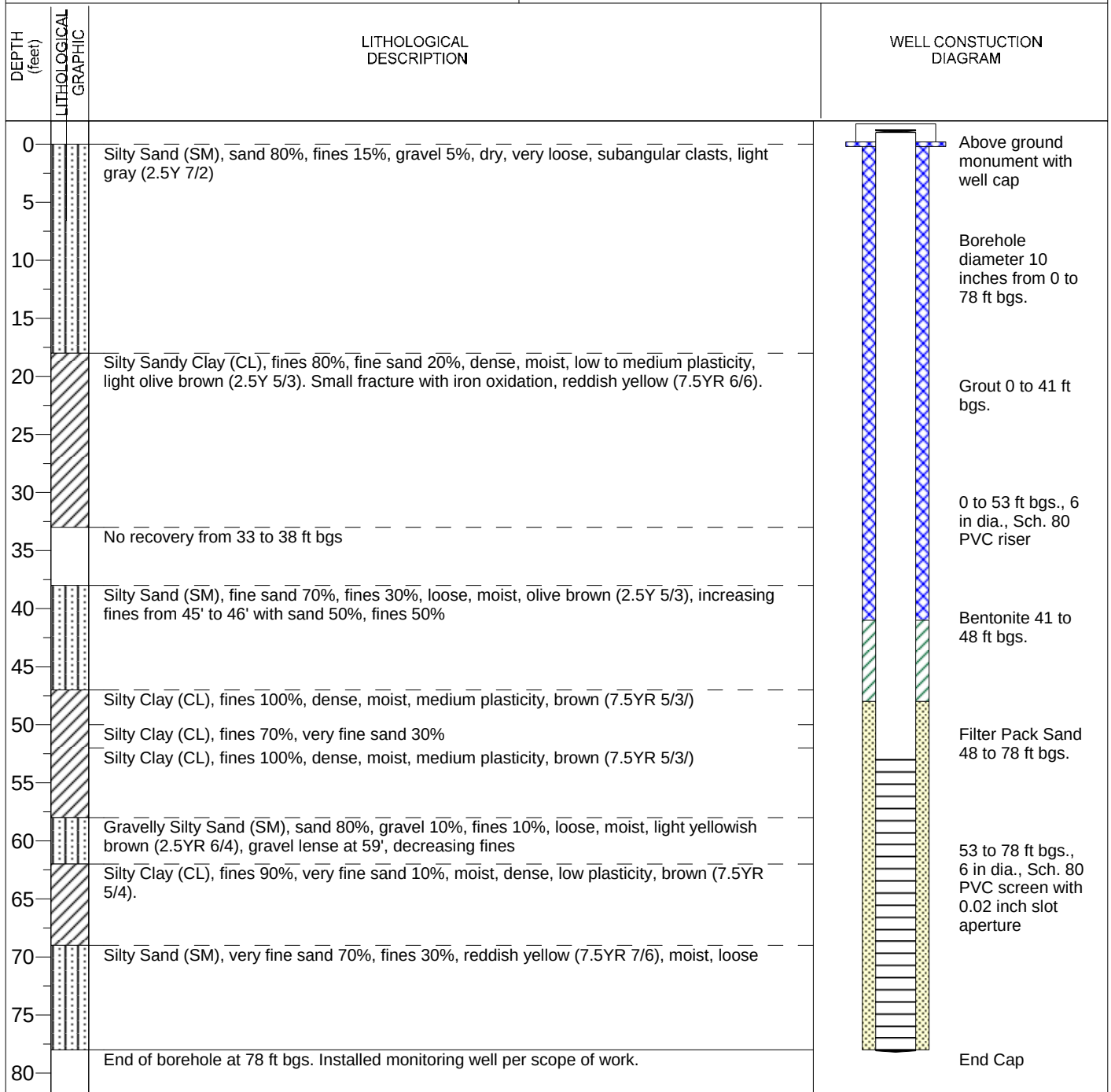
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/30/2020 DATE FINISHED: 5/31/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **BAC-37**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

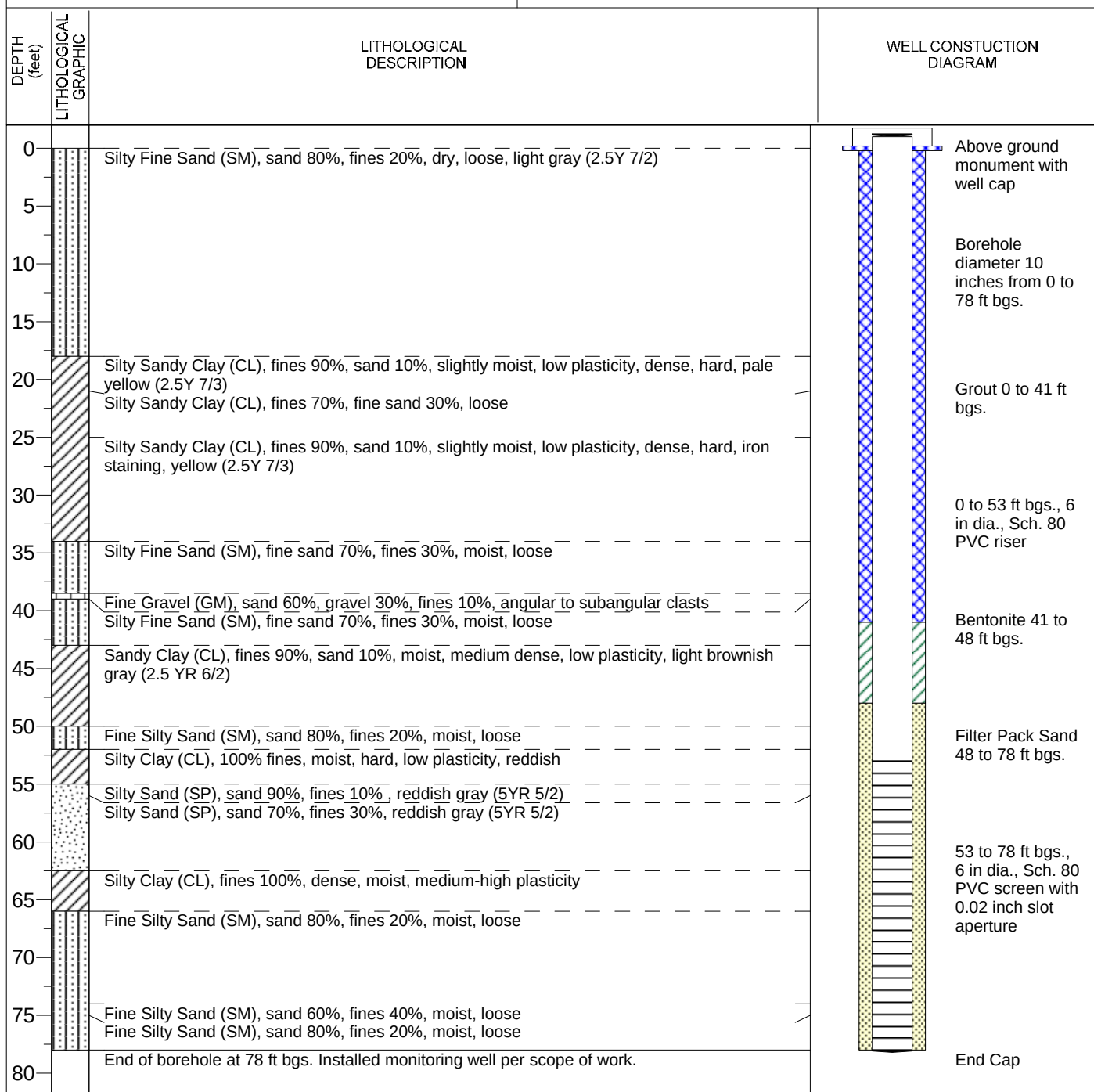
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/29/2020 DATE FINISHED: 5/30/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **BAC-38**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South Wells



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 78 ft bgs.,
10 inch sonic core barrel 0 to 78 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

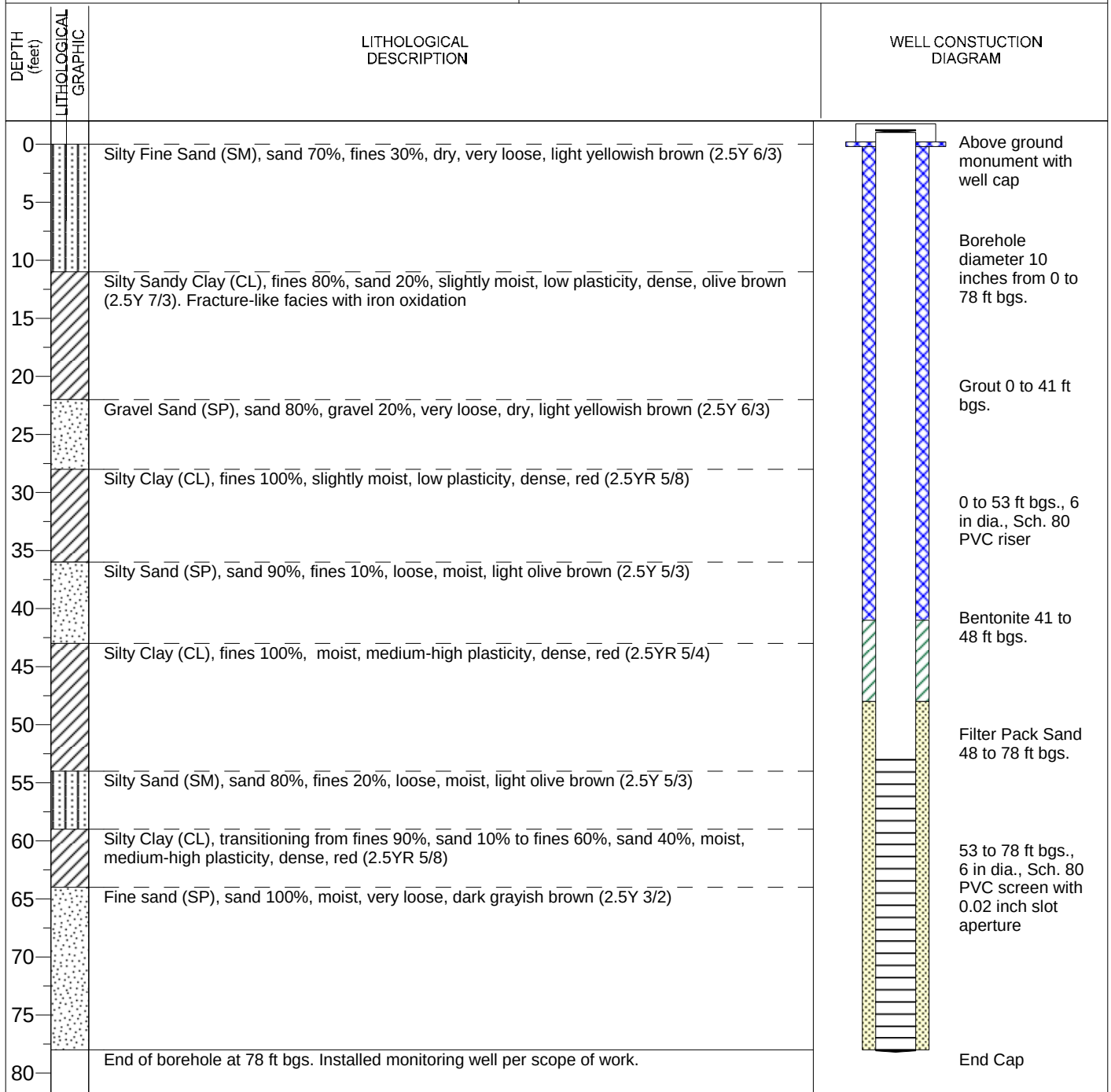
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 78

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/31/2020 DATE FINISHED: 5/31/2020

LOGGED BY: Joel Pierson



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

BA-U-1

Interval (feet)	Drilling Method	USCS	Sample Description
7/24/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-1.5	8" Sonic	SM	Silty SAND:
1.5-2.5	8" Sonic	SC	Clayey SAND:
2.5-3.5	8" Sonic	ML	Sandy SILT:
3.5-5	8" Sonic	SM/ML	Silty SAND/Sandy Silt:
5-6	8" Sonic	SP	SAND:
6-9.5	8" Sonic		SAND:
9.5-11	8" Sonic		SAND:
11-11.5	8" Sonic	SM	Silty SAND:
11.5-12	8" Sonic		Silty SAND:
12-13	8" Sonic	SP/SM	SAND with silt:
13-17	8" Sonic	SP	SAND:
17-17.5	8" Sonic	SP/SM	SAND with silt:
17.5-20	8" Sonic	SP	SAND:
20-22.5	8" Sonic		SAND:
22.5-25	8" Sonic	SM	Silty SAND:
25-26	8" Sonic	SP	SAND:
26-27.5	8" Sonic	SP/SM	SAND with silt:
27.5-28.25	8" Sonic	SM	Silty SAND with clay:
28.25-29.25	8" Sonic	SP/SM	SAND with silt:
29.25-30	8" Sonic	CL	CLAY:
30-31.5	8" Sonic		Sandy CLAY:
31.5-33	8" Sonic	ML	Sandy SILT:
33-35	8" Sonic	SM	Silty SAND with clay:
35-36.25	8" Sonic	SP/SM	SAND with silt:
36.25-40	8" Sonic	CH	CLAY:
40-46.5	8" Sonic		CLAY:
46.5-47.5	8" Sonic	SP/SM	SAND with silt:
47.5-50	8" Sonic	SM	Silty SAND with clay:
50-51	8" Sonic	SC	Clayey SAND:
51-51.75	8" Sonic	SW	SAND:
51.75-52.5	8" Sonic	SP	SAND:
52.5-53	8" Sonic	CH	Sandy CLAY:
53-54	8" Sonic		Sandy CLAY:
54-55	8" Sonic		CLAY:

TD = 55'; PVC 4-inch screen from 45 to 55; PVC 4-inch riser from -2.5 to 45
Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Daniel Dodge
Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 55-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 45 feet below ground surface (bgs)

Portland Cement-Bentonite gel (~ 10:1)
Grout, Tremie-Pipe Slurry,
from 0 to 38-feet bgs

Bentonite medium chips,
from 38 to 43 feet bgs

At Time of Drilling,
Depth to Uppermost Ground Water
~ 46.25-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

16/30 washed silica sand,
2-feet above screen
from 43 to 55 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 45 to 55 feet bgs

Total Depth (TD) = 55 feet bgs



IPSC – BOTTOM ASH BASIN AREA
DELTA, UTAH

Well BA-U-1 Schematic

Date Drawn
7/24/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
ISPC
Delta, Utah

BA-U-2

Interval (feet)	Drilling Method	USCS	Sample Description
7/25/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-1.5	8" Sonic	ML	Sandy SILT:
1.5-2.5	8" Sonic	SP/SM	SAND with silt:
2.5-4	8" Sonic		SAND with silt:
4-5	8" Sonic	ML	SILT with sand and clay:
5-6	8" Sonic	SP/SM	SAND with silt:
6-7	8" Sonic	SP	SAND:
7-9	8" Sonic	SW	Gravelly SAND:
9-9.75	8" Sonic		Gravelly SAND:
9.75-10.25	8" Sonic	SP	Gravelly SAND:
10.25-11	8" Sonic	SP/SM	SAND with silt:
11-12.5	8" Sonic	CL	CLAY:
12.5-13	8" Sonic	SP	SAND:
13-15.5	8" Sonic		SAND:
15.5-18	8" Sonic		SAND:
18-22.5	8" Sonic		SAND:
22.5-23	8" Sonic		SAND:
23-23.5	8" Sonic	SM	Silty SAND:
23.5-25	8" Sonic	SP/SM	SAND with silt:
25-30	8" Sonic	SM	Silty SAND:
30-32.5	8" Sonic	SC	Clayey SAND:
32.5-35	8" Sonic	SM	Silty SAND with clay:
35-37.5	8" Sonic		Silty SAND:
37.5-40	8" Sonic	CL	Sandy CLAY:
40-42	8" Sonic	SC	Clayey SAND:
42-45	8" Sonic	CH	CLAY:
45-47.5	8" Sonic		Sandy CLAY:
47.5-51.75	8" Sonic		CLAY:
51.75-53	8" Sonic	SM	Silty SAND:
53-54	8" Sonic		Silty SAND:
54-55	8" Sonic	SC/SM	Clayey SAND with silt:
55-56.5	8" Sonic	CH	CLAY:
56.5-57.5	8" Sonic		CLAY:
57.5-60	8" Sonic	SC	Clayey SAND:
60-60.75	8" Sonic	SM	Silty SAND with clay:
60.75-61.5	8" Sonic	SC	Clayey SAND:
61.5-62.5	8" Sonic	SP	SAND:
62.5-63.5	8" Sonic		SAND:
63.5-65	8" Sonic	SW	SAND:
65-67.5	8" Sonic	SP	SAND:
67.5-70	8" Sonic		SAND:

TD = 70'; PVC 4-inch screen from 60 to 70; PVC 4-inch riser from -2.5 to 60

Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 60 feet below ground surface (bgs)

Portland Cement-Bentonite gel (~ 10:1)
Grout, Tremie-Pipe Slurry,
from 0 to 52.5-feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 60.0-feet bgs

Bentonite medium chips, from 52.5
to 57.5 feet bgs

16/30 washed silica sand,
2-feet above screen
from 57.5 to 70 feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 60 to 70 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – BOTTOM ASH BASIN AREA
DELTA, UTAH

Well BA-U-2 Schematic

Date Drawn
7/25/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
IPSC
Delta, Utah

WWC-1

Interval (feet)	Drilling Method	USCS	Sample Description
7/26/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2	8" Sonic	ML	Sandy SILT:
2-2.5	8" Sonic	SP	SAND:
2.5-5	8" Sonic		SAND:
5-6.75	8" Sonic	SM	Silty SAND:
6.75-7.5	8" Sonic	ML	Sandy SILT:
7.5-10	8" Sonic		Sandy SILT:
10-12	8" Sonic		Sandy SILT:
12-12.5	8" Sonic	SP/SM	SAND with silt:
12.5-13	8" Sonic	SM	Silty SAND:
13-15	8" Sonic	CL	Silty CLAY:
15-17.5	8" Sonic		Silty CLAY:
17.5-18.5	8" Sonic		Silty CLAY:
18.5-19	8" Sonic		Sandy CLAY:
19-20	8" Sonic		Silty CLAY:
20-22	8" Sonic	CH	CLAY:
22-24.5	8" Sonic		Sandy CLAY:
24.5-25.5	8" Sonic		Sandy CLAY:
25.5-27	8" Sonic		Sandy CLAY:
27-31	8" Sonic		CLAY:
31-31.5	8" Sonic		CLAY:
31.5-33	8" Sonic		CLAY:
33-34.5	8" Sonic		Sandy CLAY:
34.5-35	8" Sonic		Sandy CLAY:
35-37.5	8" Sonic	SM	Silty SAND:
37.5-40	8" Sonic		Silty SAND:
40-41.5	8" Sonic	SP	SAND:
41.5-42.5	8" Sonic		SAND:
42.5-44	8" Sonic		SAND:
44-45	8" Sonic	CH	SAND:
45-46.5	8" Sonic		CLAY:
46.5-47.5	8" Sonic		Sandy CLAY:
47.5-50.5	8" Sonic	SC/SM	SAND with silt and clay:
50.5-52.5	8" Sonic	SW	SAND:
52.5-53.5	8" Sonic		SAND:
53.5-55	8" Sonic	SM	Silty SAND:
55-57	8" Sonic		Silty SAND:
57-57.5	8" Sonic	CH	CLAY:
57.5-60			CLAY:

TD = 60'; PVC 4-inch screen from 48 to 58; PVC 4-inch riser from -2.5 to 48

Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel Wellhead Protective Monument set in Concrete
 ~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
 from 0 to 60-feet bgs

4-inch diameter, Sch. 40 PVC,
 from ~ 2.0 feet above ground surface (ags)
 to 48 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
 Tremie-Pipe Slurry,
 from 0 to 41-feet bgs

At Time of Drilling,
 Depth to Uppermost Ground
 Water ~ 47.5-feet bgs

Bentonite medium chips,
 from 41 to 46 feet bgs

16/30 washed silica sand,
 2-feet above screen
 from 46 to 60 feet bgs

10-foot length; 4-inch diameter
 Sch. 40 PVC, 0.020"-slotted,
 from 48 to 58 feet bgs

Centralizers - placed at the bottom
 and the top of the well screen.

Total Depth (TD) = 60 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
 DELTA, UTAH

Well WWC-1 Schematic

Date Drawn
 7/26/15

Design by

Drawn by

MS

Scale

Last Revision
 Date

Boring Logs
IPSC
Delta, Utah

WWC-2

Interval (feet)	Drilling Method	USCS	Sample Description
7/27/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2.5	8" Sonic	SM	Silty SAND:
2.5-5	8" Sonic	SP	SAND:
5-7	8" Sonic		SAND:
7-9.5	8" Sonic	SW	Gravelly SAND:
9.5-10	8" Sonic	SW/SP	SAND:
10-12	8" Sonic	SP	SAND:
12-12.5	8" Sonic	SP/SW	Gravelly SAND:
12.5-14.5	8" Sonic	SW	Gravelly SAND:
14.5-15	8" Sonic	SP	SAND with gravel:
15-16	8" Sonic		SAND:
16-17.5	8" Sonic	CL	Sandy CLAY:
17.5-19	8" Sonic	SC	Clayey SAND:
19-20	8" Sonic		Clayey SAND:
20-21	8" Sonic		Clayey SAND:
21-22	8" Sonic	CH	CLAY:
22-24	8" Sonic		CLAY:
24-25	8" Sonic	SM	Silty SAND with clay:
25-26.5	8" Sonic	SM/SC	Silty SAND and clay:
26.5-27.5	8" Sonic	SC	Clayey SAND with silt:
27.5-31.5	8" Sonic	CH	CLAY:
31.5-34	8" Sonic		Silty CLAY:
34-35.5	8" Sonic	SP	SAND:
35.5-37	8" Sonic	ML	Sandy SILT with clay:
37-38.5	8" Sonic	CL	Silty CLAY:
38.5-40	8" Sonic	SM	Silty SAND:
40-42	8" Sonic	CH	CLAY:
42-42.5	8" Sonic		Silty CLAY:
42.5-45	8" Sonic	SC	Clayey SAND:
45-46.25	8" Sonic	CH	CLAY:
46.25-46.75	8" Sonic	SW/SM	SAND with silt:
46.75-47	8" Sonic	ML	Sandy SILT:
47-47.5	8" Sonic	SM	Silty SAND:
47.5-50	8" Sonic	CH	CLAY:
50-51.5	8" Sonic	SM	Silty SAND:
51.5-52	8" Sonic	CH	Sandy CLAY:
52-52.5	8" Sonic	SM	CLAY:
52.5-53.5	8" Sonic	CH	Sandy CLAY:
53.5-55	8" Sonic	SM	Silty SAND:
55-56.25	8" Sonic	ML	Sandy SILT:
56.25-57.5	8" Sonic		SILT:
57.5-60	8" Sonic	SP/SM	SAND with silt:
60-61.5	8" Sonic	SM	Silty SAND:
61.5-62.5	8" Sonic	CH	CLAY:
62.5-63.75	8" Sonic	SP/SM	SAND with silt:
63.75-65	8" Sonic	SW	SAND:
65-67.5	8" Sonic		SAND:
67.5-70	8" Sonic		Gravelly SAND:
70-70.5	8" Sonic	SC/SM	Silty SAND and clay:
70.5-72.5	8" Sonic	CH	CLAY:
72.5-75	8" Sonic		CLAY:

TD = 75'; PVC 4-inch screen from 60 to 70; PVC 4-inch riser from -2.5 to 60
Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Daniel Dodge
Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete
~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 75-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 60 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 1 to 53-feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 57.5-feet bgs

Bentonite medium chips,
from 53 to 58 feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
#16/30 washed silica sand,
2-feet above screen
from 58 to 75 feet bgs

Well Screen:
10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 60 to 70 feet bgs

Total Depth (TD) = 75 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

Well WWC-2 Schematic

Date Drawn
7/27/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
ISPC
Delta, Utah

WWC-3

Interval (feet)	Drilling Method	USCS	Sample Description
7/30/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-1	8" Sonic	SP	Gravelly SAND:
1-2.5	8" Sonic	SM	Silty SAND:
2.5-3.5	8" Sonic		Silty SAND:
3.5-5	8" Sonic	SP/SM	SAND with silt:
5-6.5	8" Sonic	ML	Sandy SILT:
6.5-7.5	8" Sonic	CL	Sandy CLAY:
7.5-8	8" Sonic	SM	Silty SAND:
8-10	8" Sonic	SC	Clayey SAND:
10-11	8" Sonic	SM	Silty SAND:
11-12.5	8" Sonic		Silty SAND with clay:
12.5-13.5	8" Sonic		Silty SAND:
13.5-14	8" Sonic	SC	Clayey SAND:
14-15	8" Sonic	SM	Silty SAND:
15-15.5	8" Sonic	CH	CLAY:
15.5-16	8" Sonic		CLAY:
16-16.5	8" Sonic		Sandy CLAY:
16.5-17.5	8" Sonic		Sandy CLAY:
17.5-20	8" Sonic		CLAY:
20-21	8" Sonic		CLAY:
21-22	8" Sonic		CLAY:
22-24	8" Sonic		CLAY:
24-25	8" Sonic	SM	Silty SAND:
25-26.25	8" Sonic	SP/SM	SAND with silt:
26.25-27	8" Sonic	SP	SAND:
27-29	8" Sonic	SM	Silty SAND:
29-30	8" Sonic	CH	CLAY:
30-31	8" Sonic		CLAY:
31-32.5	8" Sonic	SP	SAND:
32.5-34	8" Sonic		SAND:
34-36	8" Sonic	CH	CLAY:
36-37	8" Sonic		CLAY:
37-39.5	8" Sonic	SP/SM	SAND with silt:
39.5-40.5	8" Sonic	SP	SAND:
40.5-41.5	8" Sonic		SAND:
41.5-43	8" Sonic	CH	CLAY:
43-44	8" Sonic	SP/SM	SAND with silt:
44-45	8" Sonic	SM	Silty SAND:
45-47.5	8" Sonic	SP	SAND:
47.5-50	8" Sonic	CH	CLAY:
50-52.5	8" Sonic		CLAY:
52.5-55	8" Sonic	SP	SAND:
55-61	8" Sonic		SAND:
61-62.5	8" Sonic	SW	SAND:
62.5-65	8" Sonic		SAND:
65-67.5	8" Sonic	SP	SAND:
67.5-69.5	8" Sonic	SW	SAND:
69.5-70	8" Sonic	CH	CLAY:

TD = 70'; PVC 4-inch screen from 55 to 65; PVC 4-inch riser from -2.5 to 55

Drilling Method: Guspech GS24-300RS, 8" Rotosonic

Drilling Company - Cascade Drilling

Driller - Daniel Dodge

Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete

~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 55 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 48-feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 52.5-feet bgs

Bentonite medium chips,
from 48 to 53 feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

Sand Filter Pack:
16/30 washed silica sand,
2-feet above screen
from 53 to 70 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 55 to 65 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH UTAH

Well WWC-3 Schematic

Date Drawn
7/30/15

Design by

Drawn by

MS

Scale

Last Revision
Date

WWC-4

Interval (feet)	Drilling Method	USCS	Sample Description
7/29/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2.5	8" Sonic	SP/SM	SAND with silt:
2.5-5	8" Sonic		SAND with silt:
5-6.25	8" Sonic	ML	Sandy SILT:
6.25-7.25	8" Sonic	CL	CLAY:
7.25-8	8" Sonic	SC	Clayey SAND:
8-9	8" Sonic	SP/SC	SAND with clay:
9-10	8" Sonic	SP	SAND:
10-11	8" Sonic	ML	SILT:
11-12.5	8" Sonic	ML/CL	Clayey SILT:
12.5-14	8" Sonic	CL	CLAY:
14-15	8" Sonic		Sandy CLAY:
15-16	8" Sonic	SC	Clayey SAND:
16-18	8" Sonic		Clayey SAND:
18-19.5	8" Sonic	SM	Silty SAND:
19.5-20	8" Sonic	CH	CLAY:
20-21.25	8" Sonic		Sandy CLAY:
21.25-22.5	8" Sonic	SM	Silty SAND:
22.5-23.75	8" Sonic	CH	CLAY:
23.75-25	8" Sonic	SM	Silty SAND:
25-25.75	8" Sonic	SC	Clayey SAND:
25.75-27.5	8" Sonic	CL	Sandy CLAY:
27.5-29	8" Sonic	CH	CLAY:
29-30.5	8" Sonic		CLAY:
30.5-31.5	8" Sonic	SM	Silty SAND:
31.5-32.25	8" Sonic	CL	Sandy CLAY:
32.25-32.5	8" Sonic		Sandy CLAY:
32.5-33	8" Sonic	CH	CLAY:
33-36	8" Sonic	SP/SM	SAND with silt:
36-37	8" Sonic	SM	Silty SAND:
37-40	8" Sonic	SP	SAND:
40-42.5	8" Sonic		SAND:
42.5-45	8" Sonic		SAND:
45-46	8" Sonic	SP/SW	SAND:
46-46.5	8" Sonic	CH	CLAY:
46.5-47.5	8" Sonic		Sandy CLAY:
47.5-48.5	8" Sonic		CLAY:
48.5-50	8" Sonic		CLAY:
50-50.5	8" Sonic		CLAY:
50.5-52.5	8" Sonic	SM	Silty SAND:
52.5-54	8" Sonic	CH	CLAY:
54-55	8" Sonic	SP	SAND:
55-57	8" Sonic	CH	Sandy CLAY:
57-57.5	8" Sonic	SP	SAND:
57.5-60	8" Sonic	SM	Silty SAND:
60-62	8" Sonic		Silty SAND:
62-62.5	8" Sonic	SC	Clayey SAND:
62.5-63	8" Sonic	CH	Sandy CLAY:
63-65	8" Sonic	SM	Silty SAND:
65-67.5	8" Sonic	SW	SAND:
67.5-69.5	8" Sonic	SP	SAND:
69.5-70	8" Sonic	SW	SAND:
70-72	8" Sonic		SAND:
72-72.5	8" Sonic	SP/SM	SAND with silt:
72.5-75	8" Sonic	SM	Silty SAND:
75-80	8" Sonic	CH	CLAY:

TD = 80'; PVC 4-inch screen from 65 to 75; PVC 4-inch riser from -2.5 to 65
Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Daniel Dodge
Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete
~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 80-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 65 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 58-feet bgs

Bentonite medium chips,
from 58 to 63 feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 65-feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
16/30 washed silica sand,
2-feet above screen
from 63 to 80 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 65 to 75 feet bgs

Total Depth (TD) = 80 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

Well WWC-4 Schematic

Date Drawn
7/29/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs
ISPC
Delta, Utah

WWC-5

Interval (feet)	Drilling Method	USCS	Sample Description
7/28/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand, Gravel, roots, coal ash.
0.5-2	8" Sonic	ML	Sandy SILT:
2-2.5	8" Sonic	SP/SM	SAND with silt:
2.5-4.25	8" Sonic	SM	Silty SAND:
4.25-5	8" Sonic	SP	SAND:
5-7.5	8" Sonic	ML	Clayey SILT:
7.5-9	8" Sonic	CL	Silty CLAY:
9-10	8" Sonic		Sandy CLAY:
10-10.5	8" Sonic	SC	Clayey SAND:
10.5-11.25	8" Sonic	CL	CLAY:
11.25-12.5	8" Sonic	ML	Clayey SILT:
12.5-13.25	8" Sonic	SM	Silty SAND:
13.25-13.75	8" Sonic	SC	Clayey SAND:
13.75-15	8" Sonic	CL	CLAY:
15-16	8" Sonic		CLAY:
16-17.5	8" Sonic	CH	CLAY:
17.5-19	8" Sonic	SC	Clayey SAND:
19-20.5	8" Sonic	CH	CLAY:
20.5-21.25	8" Sonic		Sandy CLAY:
21.25-22	8" Sonic		CLAY:
22-22.5	8" Sonic	SC	Clayey SAND:
22.5-24	8" Sonic	SM	Silty SAND:
24-25	8" Sonic	CH	CLAY:
25-26	8" Sonic	SM/CH	Silty SAND / CLAY:
26-27.5	8" Sonic	CH	CLAY:
27.5-28	8" Sonic		Sandy CLAY:
28-28.25	8" Sonic	SM	Silty SAND:
28.25-30	8" Sonic	CH	CLAY:
30-32.5	8" Sonic	SP	SAND:
32.5-34	8" Sonic		SAND:
34-37.5	8" Sonic		SAND:
37.5-40	8" Sonic	SP/SM	SAND with silt:
40-42.5	8" Sonic	CH	CLAY:
42.5-42.75	8" Sonic	SM	Silty SAND:
42.75-44	8" Sonic	CH	Sandy CLAY:
44-44.5	8" Sonic	SM	Silty SAND:
44.5-45	8" Sonic		Silty SAND:
45-45.5	8" Sonic		Silty SAND:
45.5-46.75	8" Sonic		Silty SAND:
46.75-47.5	8" Sonic	CH	CLAY:
47.5-50	8" Sonic		CLAY:
50-50.5	8" Sonic		Sandy CLAY:
50.5-51.5	8" Sonic		CLAY:
51.5-52	8" Sonic	SM	Silty SAND:
52-53.25	8" Sonic	CH	CLAY:
53.25-53.5	8" Sonic		CLAY:
53.5-54	8" Sonic	SC	Clayey SAND:
54-55	8" Sonic	SM/SC	Silty SAND and clay:
55-57.5	8" Sonic	SP	SAND:
57.5-60	8" Sonic		SAND:
60-60.75	8" Sonic		SAND:
60.75-61.5	8" Sonic	CH	CLAY:
61.5-62.5	8" Sonic	SP/SM	SAND with silt:
62.5-64	8" Sonic		SAND with silt:
64-65	8" Sonic	SW	SAND:
65-67.5	8" Sonic		SAND with gravel:
67.5-70	8" Sonic		Gravelly SAND:
70-72.5	8" Sonic		SAND:
72.5-75	8" Sonic		SAND:

TD = 75'; PVC 4-inch screen from 64 to 74; PVC 4-inch riser from -2.5 to 64
Drilling Method: Guspech GS24-300RS, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Daniel Dodge
Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete

~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 75-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 64 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 57-feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 61.5-feet bgs

Bentonite medium chips,
from 57 to 62 feet bgs

16/30 washed silica sand,
2-feet above screen
from 62 to 75 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 64 to 74 feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

Total Depth (TD) = 75 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

Well WWC-5 Schematic

Date Drawn
7/28/15

Design by

Drawn by

MS

Scale

Last Revision
Date

Boring Logs

ISPC

Delta, Utah

WWC-6

Interval (feet)	Drilling Method	USCS	Sample Description
03/23/2018 - 03/24/2018			
0-0.5	8" Sonic	SM	Silty sand
0.7-7	8" Sonic	SP	Sand, poorly graded, dry
7-12.5	8" Sonic	CH	Silty clay
12.5-15.5	8" Sonic	SM	Sand, some silt
15.5-19.5	8" Sonic	SP	Sand, poorly graded
19.5-21.5	8" Sonic	SW/GW	Sand and gravel
21.5-27	8" Sonic	SP	Sand, poorly graded, running sands @ ~26
27-29.5	8" Sonic	SP	Sand, poorly graded, running sands
29.5-30	8" Sonic	SW	Sand with gravel
30-37	8" Sonic	CH	Clay, stiff
37-41	8" Sonic	CH	Clay, trace silt, moist, stiff
41-47	8" Sonic	CH	Clay, stiff, moist
47-48	8" Sonic	SP	Sand
48-57	8" Sonic	SW	Sand, silt and gravel
57-59	8" Sonic	SP	Sand
59-60.5	8" Sonic	CH	Clay wet
60.5-64.5	8" Sonic	MH	Silt, trace clay
64.5-67	8" Sonic	CH	Clay wet
67-72	8" Sonic	CH	Clay wet
72-77	8" Sonic	SP	Sand, saturated
77-87	8" Sonic	CH	Clay

TD = 87'; PVC sump 87-77; 4" screen 77-67; sand 87-62 centralizers 67.5 and 76.5

Drilling Method: Sonic

Drilling Company - Cascade Drilling

Driller - David Donnely

Geologist - Tom Fendler

Flush-mount, Wellhead Protective Vault, 8-inch diameter, steel lid

Ground Surface

Concrete Apron

Borehole:
8-inch diameter,
from 0 to 87-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 0.25 - 67 feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 57-feet bgs

Bentonite medium chips, from 57
to 62 feet bgs

At Time of Drilling, Depth to
Uppermost Ground Water ~ 72 to 77-
feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 62 to 87 feet bgs)

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 67 to 77 feet bgs...with 10-ft. solid
PVC sump at 77 to 87 feet bgs.

Total Depth (TD) = 87 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
Delta, Utah

Well WWC-6 Schematic

Date Drawn
10/24/1
8
Last Revision
Date

Design by

Drawn by JR

Scale

Boring Logs

ISPC

Delta, Utah

WWC-7

Interval (feet)	Drilling Method	USCS	Sample Description
03/20/2018 - 03/23/2018			
0-1.5	8" Sonic	SM	Silty sand, dry
1.5-8.5	8" Sonic	SP	Sand, poorly graded, saturated at 7.5
8.5-9	8" Sonic	CH	Sandy clay
9-14	8" Sonic	SC	Clay with trace sand
14-24	8" Sonic	SP	Sand, poorly graded, saturated with heaving sands at 17'
24-25	8" Sonic	SW/GW	Gravel/sand and gravel
25-27	8" Sonic	CH	Clay, moist
27-34.5	8" Sonic	SP	Sandy, wet
34.5-35.5	8" Sonic	SW/GW	Sand, some gravel
35.5-37	8" Sonic	CH	Clay, moist, stiff
37-47	8" Sonic	CH	Clay, moist, stiff
47-49.5	8" Sonic	CH	Clay, moist, stiff
49.5-50.5	8" Sonic	SP	Sand, poorly sorted, moist
50.5-57	8" Sonic	CH	Clay, moist, stiff
57-67	8" Sonic	CH	Clay, moist, stiff
67-72	8" Sonic	CH	Clay, moist, stiff
72-77	8" Sonic	SP	Sand, poorly graded, saturated @76.5
77-87	8" Sonic	SP	Sand, poorly graded, saturated

TD = 87'; PVC 4-inch screen from 77 to 87; sand pack 72-87; bentonite pellets 67-72; grout 67-grade

Drilling Method: Sonic

Drilling Company - Cascade Drilling

Driller - David Donnelly

Geologist - Tom Fendler

Flush-mount, Wellhead Protective Vault, 8-inch diameter, steel lid

Ground Surface

Concrete Apron

4-inch diameter, Sch. 40 PVC,
from ~ 0.25 - 77 feet bgs

Borehole:
8-inch diameter,
from 0 to 87-feet bgs

Cement-Bentonite (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 67-feet bgs

Bentonite medium chips, from 67
to 72 feet bgs

At Time of Drilling, Depth to
Uppermost Ground Water ~ 72 to 77-
feet bgs

Centralizers placed ~ the bottom
and the top of the well screen.

Sand Filter Pack:
(16/30 washed silica sand,
2-feet above screen
from 72 to 87 feet bgs)

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 77 to 87 feet bgs

Total Depth (TD) = 87 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

Well WWC-7 Schematic

Date Drawn
10/24/1
8
Last Revision
Date

Design by

Drawn by JR

Scale



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: WWC-8

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Project No.: 203709098

Completion Date: 2019-04-25

Driller: Ryan Miller

Logged by: Rich Pratt

Depth to Water at Drilling: 77 feet

Depth to Water at Drilling (static at 24 hours): 27 feet

WWC-8

Interval (feet)	Description
0 - 3	Light brown sand, moist
3 - 7	Light brown sand with silt, dry
7 - 9	Medium brown clay with sand, moist
9 - 13	Medium brown clay, moist
13 - 15	Light brown clay, moist
15 - 17	Light brown clay, dry
17 - 26	Light brown clay, moist
26 - 35	Light brown clay with sand, moist
35 - 37	Light brown clay, moist
37 - 41	Medium brown medium grained sand, moist
41 - 43	Medium brown medium grained sand, moist
43 - 55	Medium brown medium grained sand, moist
55 - 59	Light brown clay, moist
59 - 63	Light brown clay with sand, moist
63 - 66	Light brown clay, moist
66 - 67	Light brown clay with sand, moist
67 - 68	Light brown sand, moist
68 - 77	Light brown clay with sand, moist
77 - 88	Medium brown sand, saturated
88 - 93	Light brown clay
93 - 94	Light brown clay with sand
94 - 96	Light brown clay
96 - 97	Medium brown sand

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-69.38 feet

Screen (6 inch, 0.02 slotted, PVC): 69.38-94.38 feet

Sand Pack: 16/30 sand, 64.38-94.38 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
57.38-64.38 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 2.02 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 2.57 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 96.4 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 57.38 feet below ground surface (bgs)

10-inch boring from 0 to 94.38-feet bgs

Medium bentonite chips From 57.38 to 64.38 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 64.38 to 94.38 feet bgs)

At Time of Drilling, Depth to Uppermost Ground Water ~ 77 feet bgs

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 69.38 to 94.38 feet bgs

Total Depth (TD) = 94.38 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

WWC-8 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: WWC-9

Project No.: 203709098

Completion Date: 2019-04-28

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Driller: Ryan Miller

Logged by: Rich Pratt

Depth to Water at Drilling: 67 feet

Depth to Water at Drilling (static at 24 hours):
23.75 feet

WWC-9

Interval (feet)	Description
0 - 0.5	Medium brown silt, dry
0.5 - 1	Medium brown clay, dry
1 - 4	Light brown fine-grained sand, dry
4 - 8	Light brown clay, dry
8 - 13	Light brown fine-grained sand, dry
13 - 15	Light brown clay, dry
15 - 16	Light brown clay with sand, dry
16 - 17	Light brown clay, dry
17 - 18	Light brown clay with sand, moist
18 - 21.5	Light brown clay, moist
21.5 - 22	Light brown clay with sand, moist
22 - 23	Light brown clay, moist
23 - 26	Light brown clay with sand, moist
26 - 27	Light brown clay, moist
27 - 30	Light brown clay, moist
30 - 31	Light brown clay, saturated
31 - 32	Light brown clay with sand, moist
32 - 36	Light brown clay, moist
36 - 37	Light brown clay with sand, moist
37 - 38	Light brown clay with sand, moist
38 - 51	Medium brown medium grained sand, moist
51 - 54	Light brown clay, moist
54 - 58	Medium brown medium grained sand, moist
58 - 59	Medium brown medium grained sand, moist
59 - 62	Medium brown medium grained sand, moist
62 - 63	Light brown clay, moist to moist
63 - 66	Light brown clay with sand, moist
66 - 67	Light brown clay, moist
67 - 69	Light brown clay with sand, saturated

Interval (feet)	Description
69 – 69.5	Medium brown sand
69.5 - 70	Light brown clay with sand
70 - 71	Light brown clay
71 - 74	Light brown clay with sand
74 - 75	Medium brown sand
75 - 77	Light brown clay
77 - 83	Medium brown sand
83 - 85	Light brown clay
85 - 87	Light brown clay with sand

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-61.7 feet

Screen (6 inch, 0.02 slotted, PVC): 61.7-86.7 feet

Sand Pack: 16/30 sand, 56.7-86.7 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
49.7-56.7 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 2.45 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 3.24 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 89.15 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 49.7 feet below ground surface (bgs)

10-inch boring from 0 to 86.7-feet bgs

Medium bentonite chips From 49.7 to 56.7 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 56.7 to 86.7 feet bgs)

At Time of Drilling, Depth to Uppermost Ground Water ~ 67 feet bgs

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 61.7 to 86.7 feet bgs

Total Depth (TD) = 86.7 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
Delta, Utah

WWC-9 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date



Project Name: Intermountain Power Service Corporation

Boring Monitor Well: WWC-10

Project No.: 203709098

Completion Date: 2019-04-26

Drilling Firm: Cascade

Boring Method: Sonic

Boring Diameter: 10 inches

Driller: Ryan Miller

Logged by: Rich Pratt

Depth to Water at Drilling: 67 feet

Depth to Water at Drilling (static at 24 hours):
17.65 feet

WWC-10

Interval (feet)	Description
0 - 5	Light brown sand, moist
5 - 9.5	Light brown clay with sand, moist
9.5 - 13	Dark gray clay, moist
13 - 14	Dark brown silt with organic plant matter, moist
14 - 15	Dark gray clay, moist
15 - 17	Gray medium grained sand, moist
17 - 34	Gray medium grained sand, moist
34 - 45	Brown medium grained sand, moist
45 - 47	Medium brown clay, moist
47 - 49	Medium brown clay with sand, moist
49 - 50	Medium brown medium grained sand, moist
50 - 51	Medium brown clay with sand, moist
51 - 52	Medium brown medium grained sand, moist
52 - 53	Medium brown clay with sand, moist
53 - 54	Medium brown medium grained sand, moist
54 - 60	Medium brown clay, moist
60 - 61	Medium brown clay with sand, moist
61 - 67	Medium brown clay, moist
67 - 68	Medium brown clay, saturated
68 - 69	Medium brown clay with sand
69 - 70	Medium brown clay
70 - 76	Medium brown clay with sand
76 - 87	Medium brown clay

Well Completion materials and Depth Intervals (feet) Below Ground Surface

Surface Completion: Stick-up

Casing, solid (6-inch PVC): 0-62.75 feet

Screen (6 inch, 0.02 slotted, PVC): 62.75-87.75 feet

Sand Pack: 16/30 sand, 57.75-87.75 feet

Bentonite Seal: Hydrolyzed bentonite pellet seal
50.75-57.75 feet

Top of 6 in. PVC Casing Elevation (Relative Datum Survey): NA

Top of Manhole Cover (Relative Datum Survey):
NA

Top of PVC casing above ground surface ~ 2.35 feet. stick-up

Above-grade, 5-feet. long, 8-in. square, steel Wellhead Protective Monument ~ 3.17 feet. stick-up

Ground Surface

6-inch Diameter, Sch 40 PVC Well Casing from below top of casing - 90.1 feet

Cement-Bentonite (~ 10:1) Grout, Tremie-Pipe Slurry from 0 to 50.75 feet below ground surface (bgs)

10-inch boring from 0 to 87.75-feet bgs

Medium bentonite chips From 50.75 to 57.75 feet bgs

Sand Filter Pack (16/30 washed, silica sand, 5 feet above screen from 57.75 to 87.75 feet bgs)

At Time of Drilling, Depth to Uppermost Ground Water ~ 67 feet bgs

Centralizers - placed at the bottom and at 25-30 foot intervals

25-feet; 6-inch 0.020-slotted, PVC well screen from 62.75 to 87.75 feet bgs

Total Depth (TD) = 87.75 feet bgs



IPSC – WASTEWATER SURFACE IMPOUNDMENT
DELTA, UTAH

WWC-10 Schematic

Date Drawn
6-4-19

Design by

Drawn by

RP

Scale

Last Revision
Date

MONITORING WELL ID: **WWC-11**

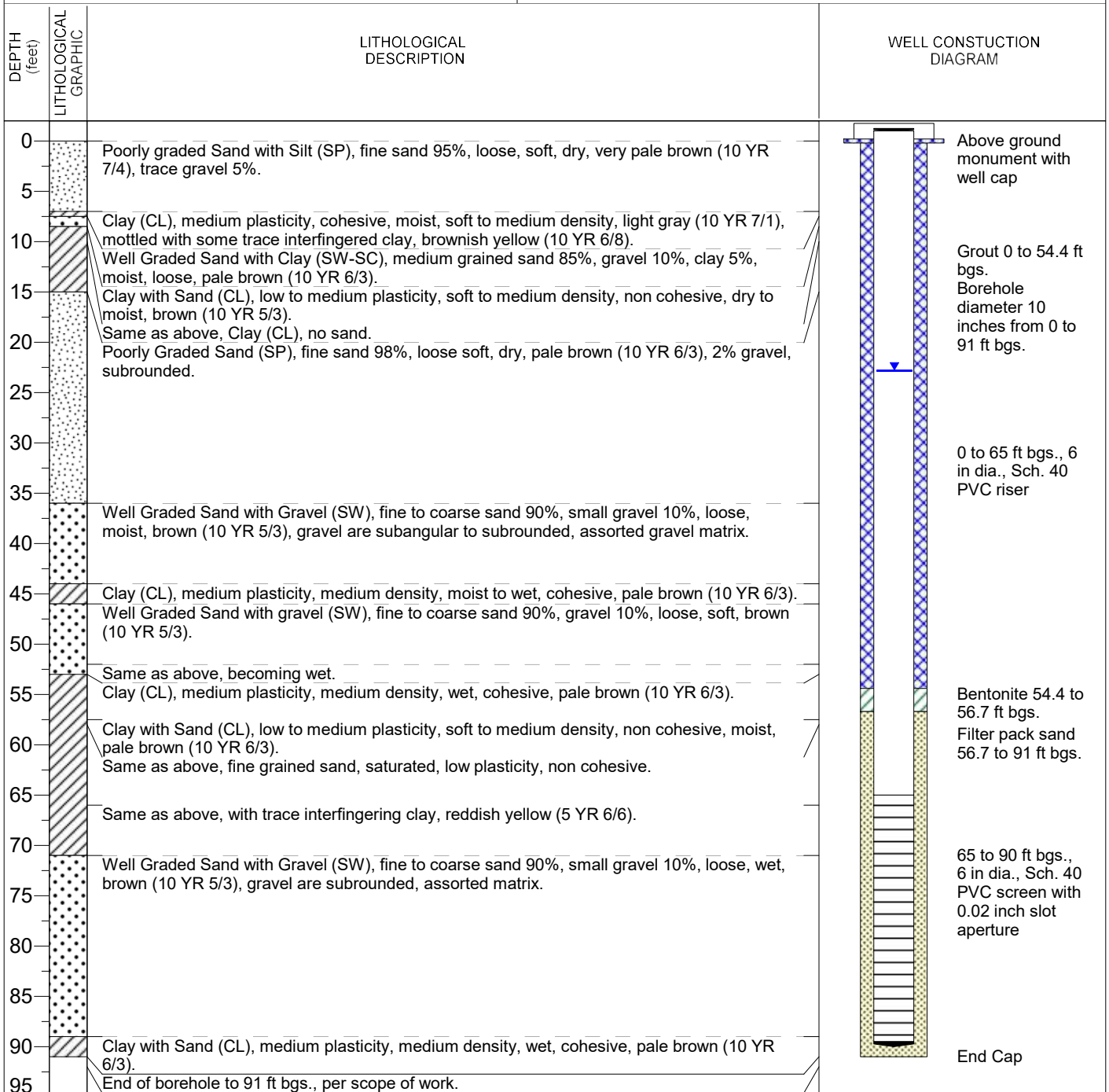


CLIENT: Intermountain Power Service Corporation
 PROJECT: Monitoring Well Installation
 SITE LOCATION: South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling
 DRILLING METHOD: Sonic
 DRILLING EQUIPMENT: Pro Sonic 600 11-77287
 SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
 10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:
 EASTING: NORTHING:
 ELEVATION: BOREHOLE ANGLE: 90 degrees
 TOTAL DEPTH (ft.): 91 GROUNDWATER LEVEL (ft. btoc.): 22.82
 DATE STARTED: 11/15/2019 DATE FINISHED: 11/16/2019
 LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
 dia. = diameter YR = Yellow-Red
 ft = feet

MONITORING WELL ID: **WWC-12**

CLIENT Intermountain Power Service Corporation
 PROJECT Monitoring Well Installation
 SITE LOCATION South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
 10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

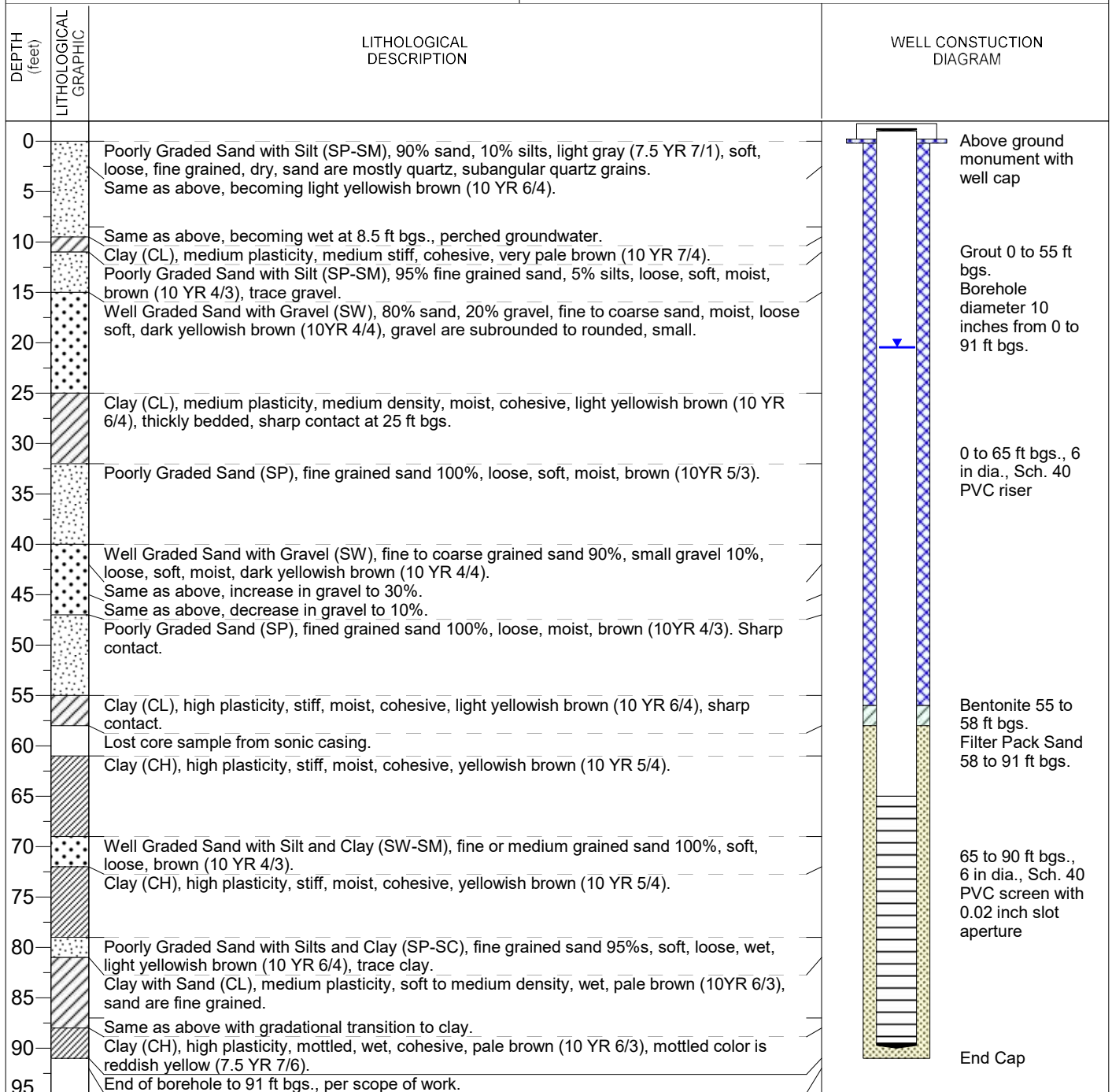
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 91

GROUNDWATER LEVEL (ft. btoc.): 20.46

DATE STARTED: 11/11/2019 DATE FINISHED: 11/12/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
 dia. = diameter YR = Yellow-Red
 ft = feet

MONITORING WELL ID: **WWC-13**

CLIENT Intermountain Power Service Corporation
 PROJECT Monitoring Well Installation
 SITE LOCATION South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600 11-77287

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
 10 inch sonic core barrel 0 to 91 ft bgs.

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

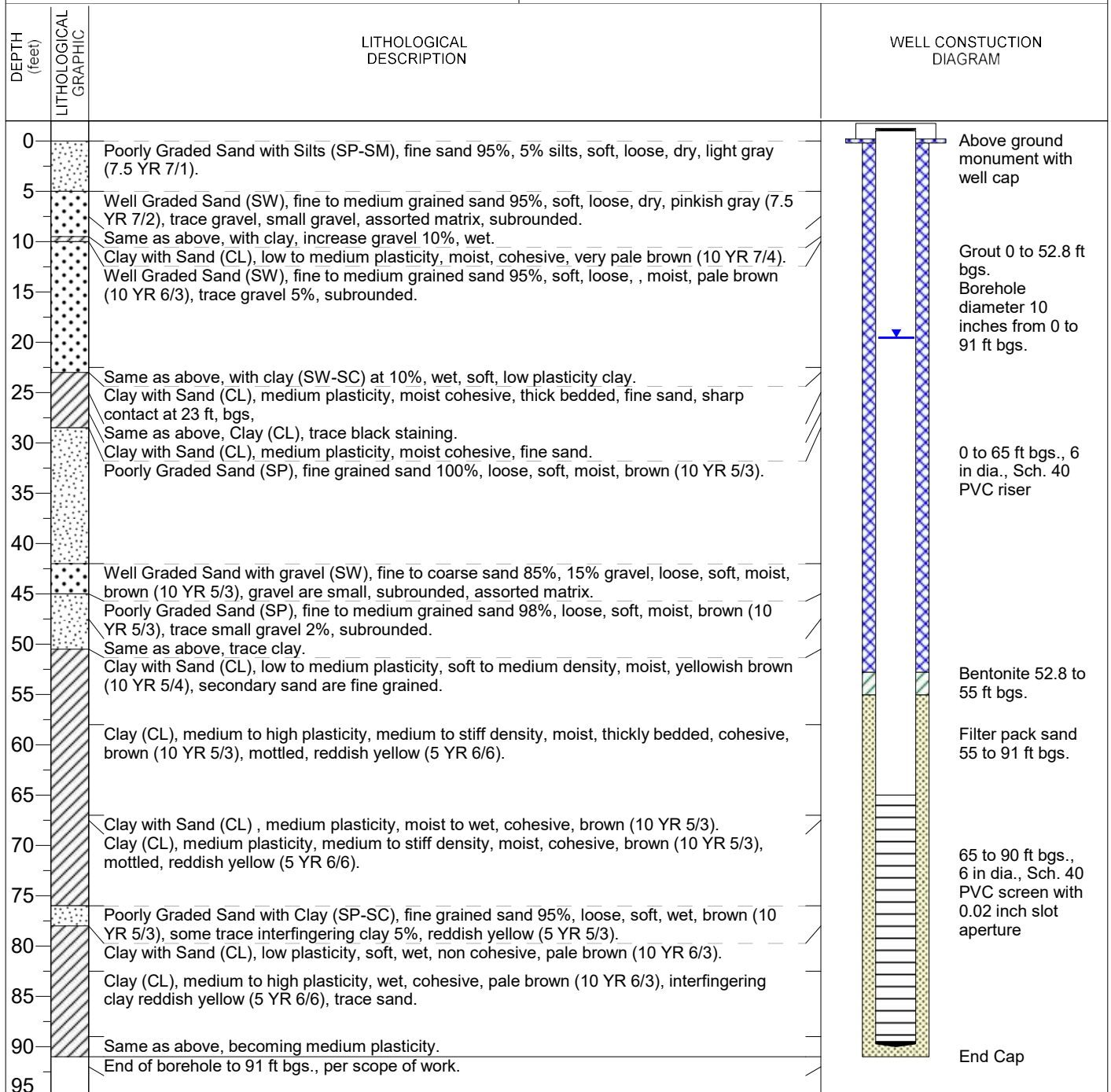
BOREHOLE ANGLE: 90 degrees

TOTAL DEPTH (ft.): 91

GROUNDWATER LEVEL (ft. btoc.): 19.55

DATE STARTED: 11/13/2019 DATE FINISHED: 11/15/2019

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
 dia. = diameter YR = Yellow-Red
 ft = feet

MONITORING WELL ID: **WWC-14**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 88 ft bgs.,
10 inch sonic core barrel 0 to 88 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

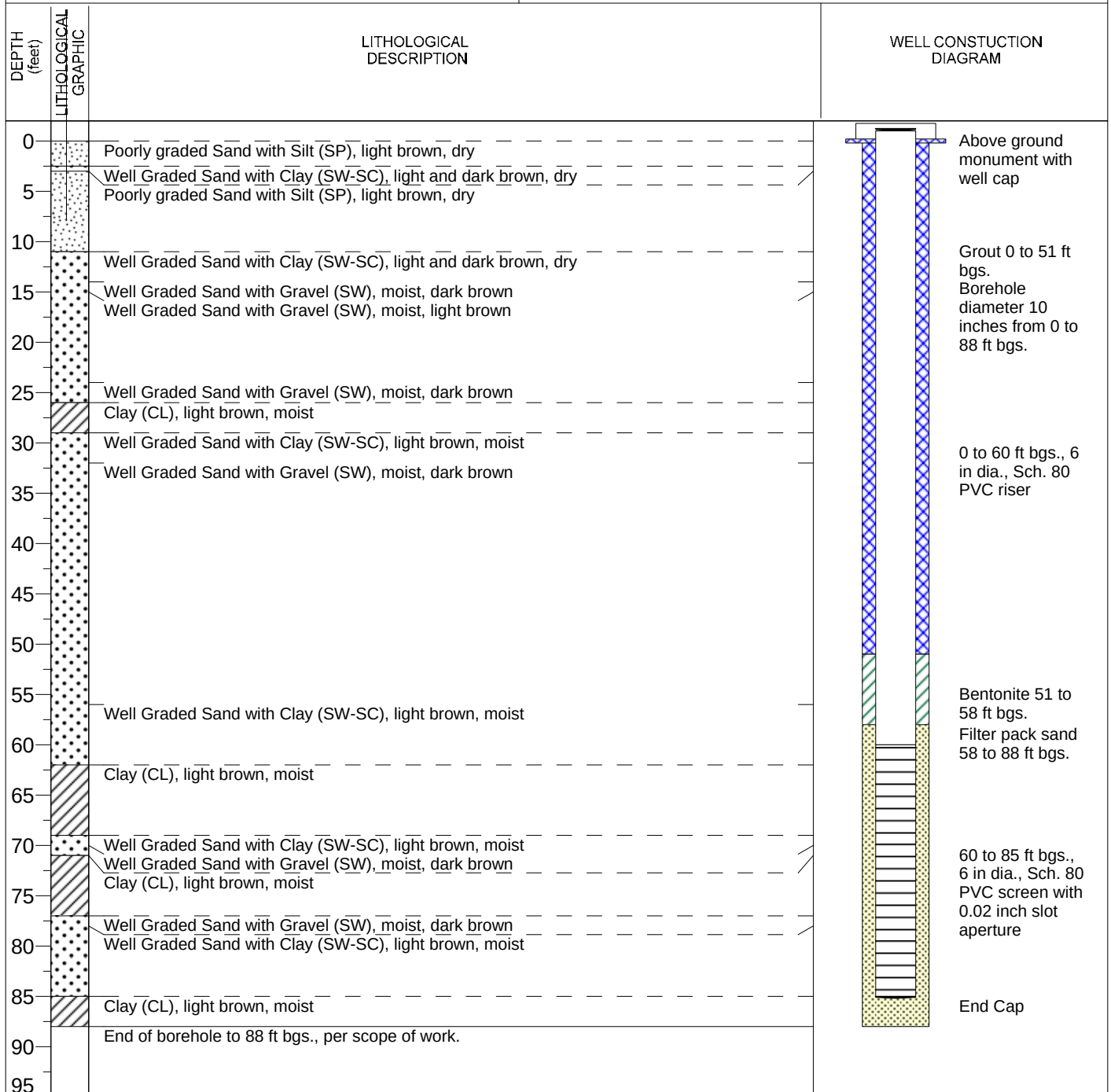
TOTAL DEPTH (ft.): 88

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/6/2020

DATE FINISHED: 5/7/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **WWC-15**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 88 ft bgs.,
10 inch sonic core barrel 0 to 88 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

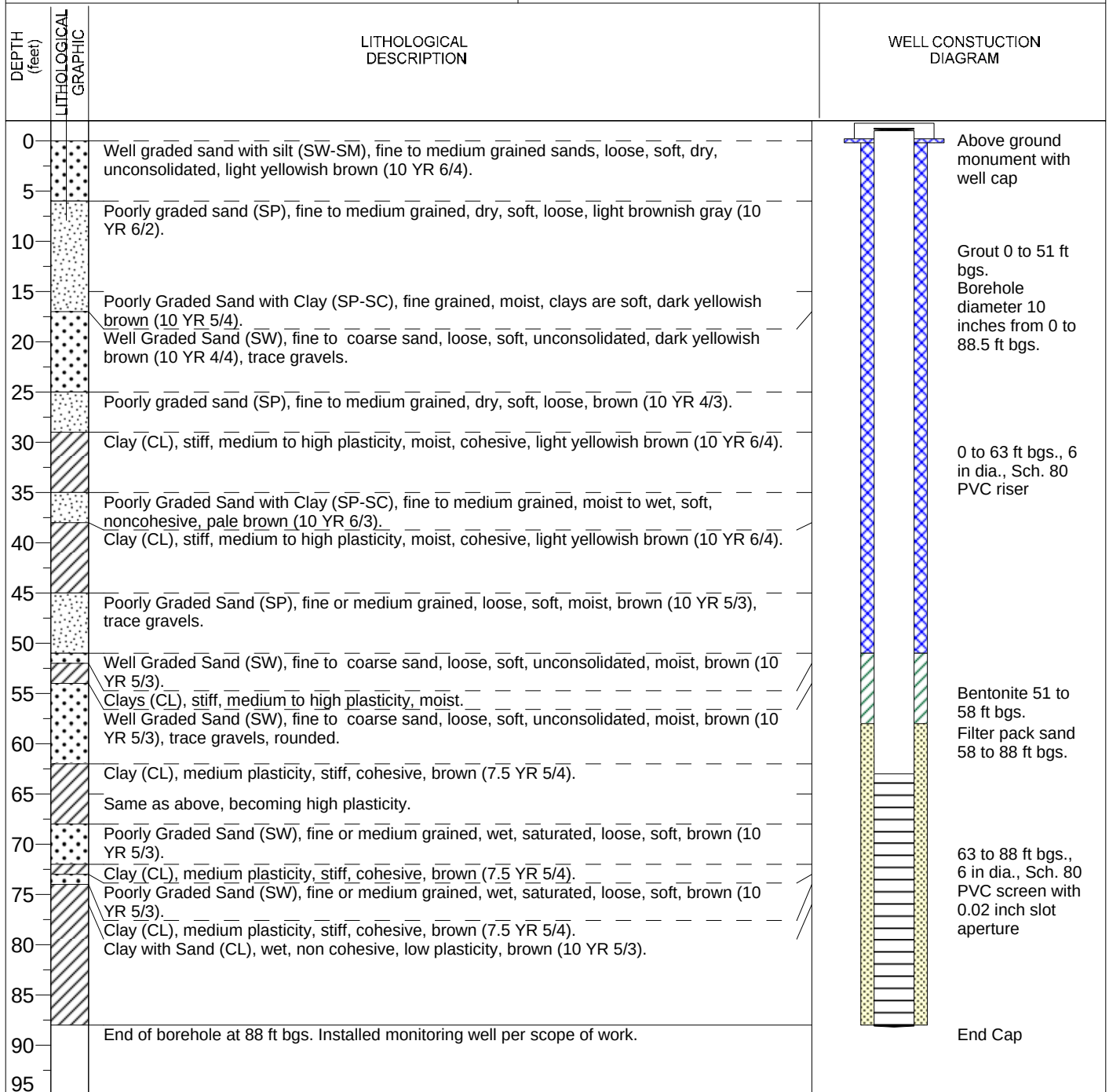
TOTAL DEPTH (ft.): 88

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/6/2020

DATE FINISHED: 5/7/2020

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet



MONITORING WELL ID: **WWC-16**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 88 ft bgs.,
10 inch sonic core barrel 0 to 88 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

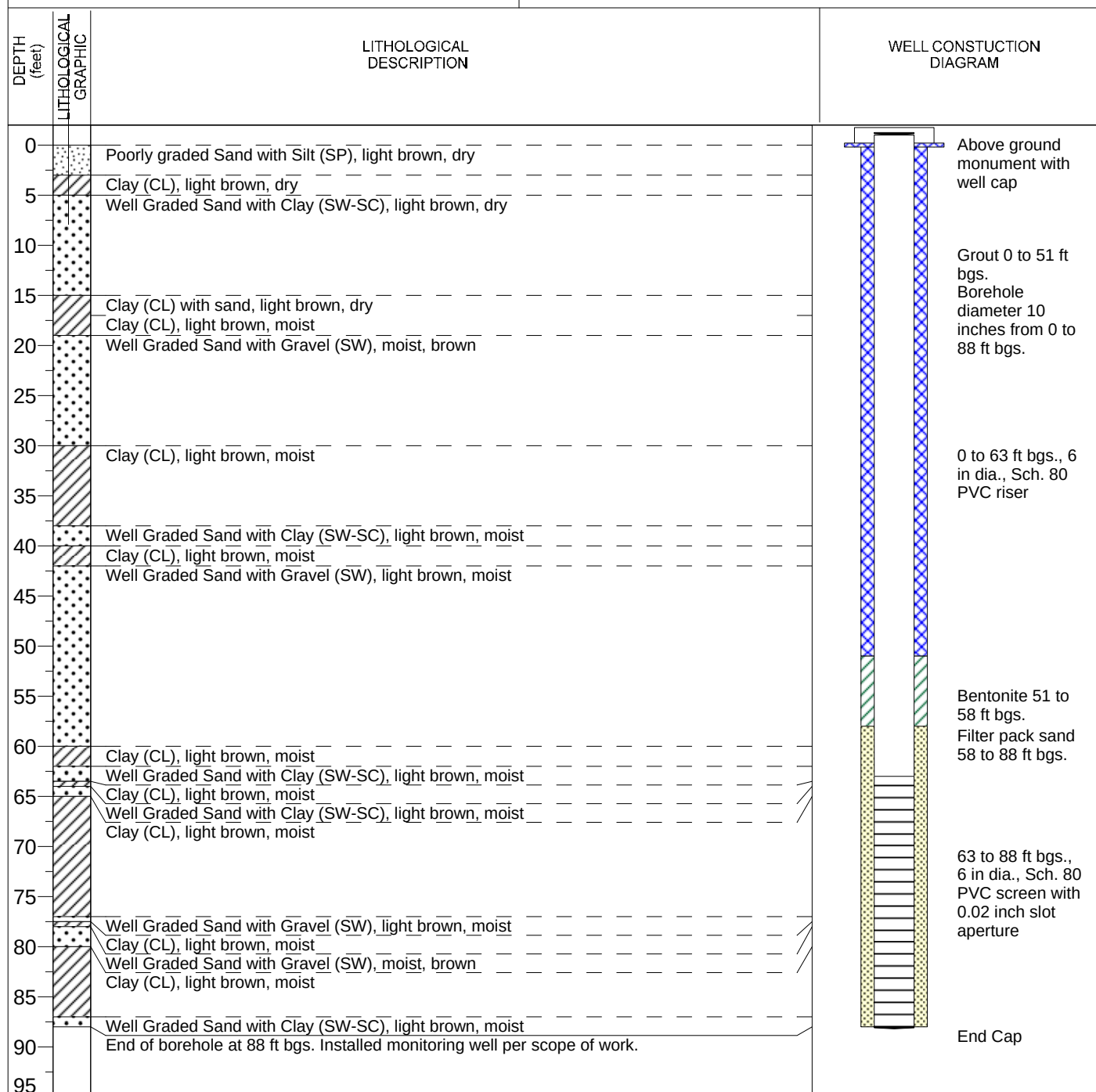
TOTAL DEPTH (ft.): 88

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/7/2020

DATE FINISHED: 5/8/2020

LOGGED BY: Rich Pratt



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

MONITORING WELL ID: **WWC-17**

CLIENT: Intermountain Power Service Corporation

PROJECT: Monitoring Well Installation

SITE LOCATION: South of Waste Water Basin Surface Impoundment



DRILLING CONTRACTOR: Cascade Drilling

DRILLING METHOD: Sonic

DRILLING EQUIPMENT: Pro Sonic 600

SAMPLING METHOD: 4 inch sonic core barrel 0 to 91 ft bgs.,
10 inch sonic core barrel 0 to 91 ft bgs.,

COORDINATE SYSTEM:

EASTING:

NORTHING:

ELEVATION:

BOREHOLE ANGLE: 90 degrees

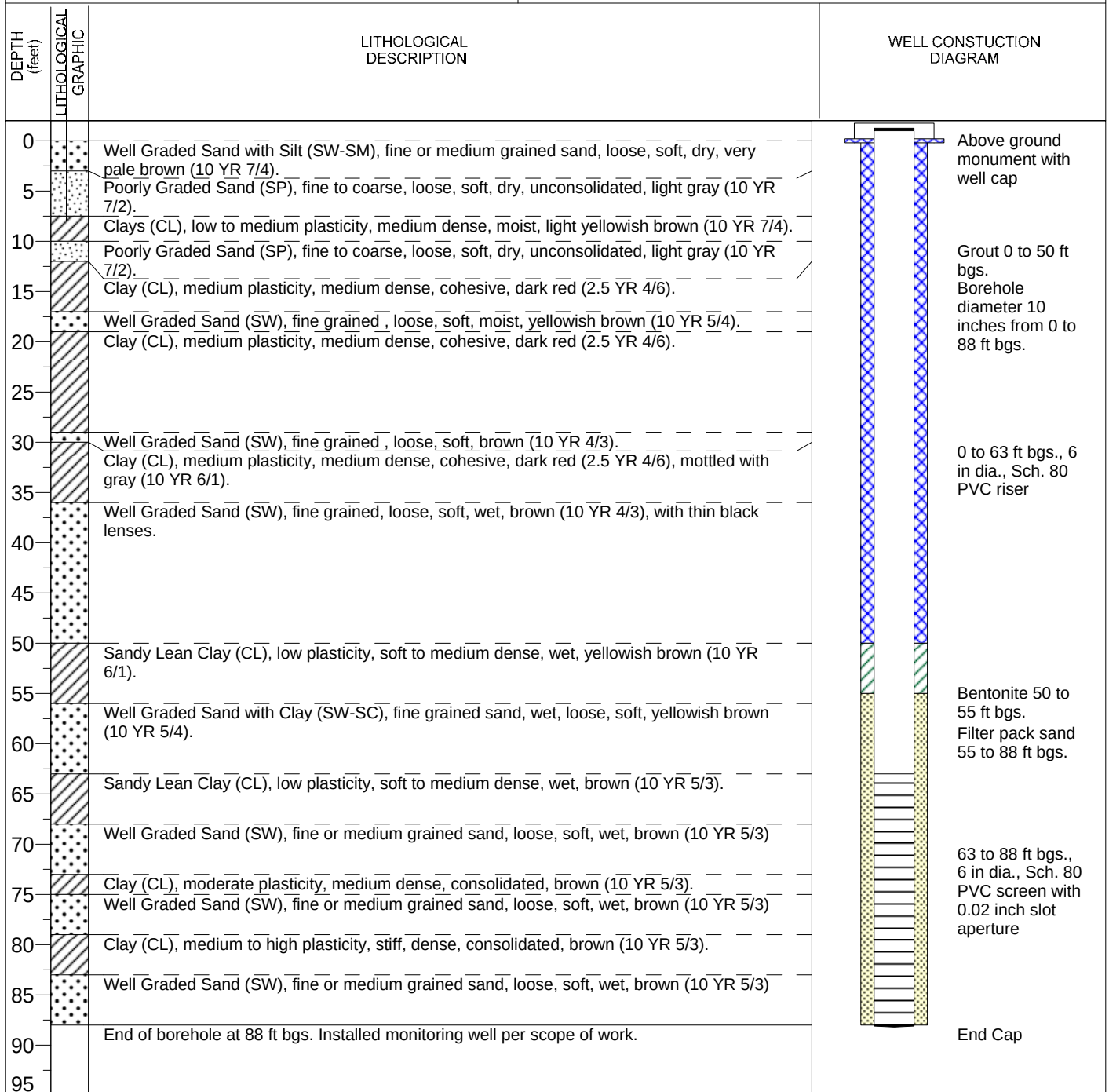
TOTAL DEPTH (ft.): 88

GROUNDWATER LEVEL (ft. btoc.):

DATE STARTED: 5/8/2020

DATE FINISHED: 5/8/2020

LOGGED BY: Michael Ward



Notes: bgs. = below ground surface Sch. = Schedule
dia. = diameter YR = Yellow-Red
ft = feet

WWU-1

Interval (feet)	Drilling Method	USCS	Sample Description
8/11/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand and Gravel.
0.5-1.5	8" Sonic	SM	Silty SAND:
1.5-2.5	8" Sonic	SP/SM	SAND with silt:
2.5-3.5	8" Sonic	ML	Sandy SILT:
3.5-4.75	8" Sonic	SP	SAND:
4.75-5	8" Sonic	SC	Clayey SAND:
5-7	8" Sonic	SP/SM	SAND with silt:
7-10.75	8" Sonic	SC	Clayey SAND:
10.75-12.5	8" Sonic	SP/SM	SAND with silt:
12.5-13	8" Sonic	SC	Clayey SAND:
13-14	8" Sonic	SM	Silty SAND:
14-15	8" Sonic	SP	SAND:
15-17.5	8" Sonic	SP/SM	SAND with silt:
17.5-20	8" Sonic	SP	SAND:
20-22	8" Sonic	SP/SM	SAND with silt:
22-22.5	8" Sonic	SC	Clayey SAND:
22.5-25	8" Sonic	CL	Sandy CLAY:
25-27.5	8" Sonic		Sandy CLAY:
27.5-28	8" Sonic	SC	Clayey SAND:
28-30	8" Sonic	SW	Gravelly SAND:
30-32.5	8" Sonic	SP/SM	SAND with silt:
32.5-35	8" Sonic	SM	Silty SAND:
35-37.5	8" Sonic	SP	SAND:
37.5-40	8" Sonic		SAND:
40-42.5	8" Sonic	SW/SM	SAND with silt:
42.5-43.25	8" Sonic	SM	Silty SAND:
43.25-44.25	8" Sonic		Silty SAND:
44.25-45	8" Sonic	SP/SW	SAND:
45-47.5	8" Sonic	SW	SAND:
47.5-50	8" Sonic	SP	SAND:
50-50.5	8" Sonic		SAND:
50.5-51.75	8" Sonic	ML	Sandy SILT:
51.75-52.5	8" Sonic	SP	SAND:
52.5-53.25	8" Sonic	SC	Clayey SAND:
53.25-55	8" Sonic		Clayey SAND:
55-56.5	8" Sonic		Clayey SAND:
56.5-57.5	8" Sonic		Clayey SAND:
57.5-60	8" Sonic		Clayey SAND:
60-61	8" Sonic	ML	Clayey SILT with sand:
61-62.5	8" Sonic	SM	Silty SAND:
62.5-63.75	8" Sonic	CL	Sandy CLAY:
63.75-64.75	8" Sonic	SM	Silty SAND:
64.75-65.5	8" Sonic	SP	SAND:
65.5-66.5	8" Sonic	ML	Clayey SILT with sand:
66.5-67.5	8" Sonic	SC	Clayey SAND:
67.5-70	8" Sonic	SM	Silty SAND with clay:

TD = 70'; PVC 4-inch screen from 60 to 70; PVC 4-inch riser from -2.5 to 60

Drilling Method: Prosonic T600, 8" Rotasonic

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete
~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 70-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 60 feet below ground surface (bgs)

Portland Cement-Bentonite gel (~ 10:1)
Grout, Tremie-Pipe Slurry,
from 0 to 53-feet bgs

Bentonite medium chips,
from 53 to 58 feet bgs

At Time of Drilling,
Depth to Uppermost Ground
Water ~ 61-feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

Sand Filter Pack
16/30 washed silica sand,
2-feet above screen
from 58 to 70 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 60 to 70 feet bgs

Total Depth (TD) = 70 feet bgs



IPSC – WASTEWATER HOLDING BASIN AREA
DELTA, UTAH

Well WW-U-1 Schematic

Date Drawn
8/11/15

Design by

Drawn by

MS

Scale

Last Revision
Date

WWU-2

Interval (feet)	Drilling Method	USCS	Sample Description
8/11/2015			
0-0.5	8" Sonic	TOPSOIL	Surface - Sand and Gravel.
0.5-2.5	8" Sonic	ML	Gravelly SILT with sand:
2.5-4	8" Sonic	SP	SAND:
4-5	8" Sonic		SAND:
5-5.5	8" Sonic		SAND:
5.5-7.5	8" Sonic		SAND:
7.5-9.5	8" Sonic	SP/SW	SAND:
9.5-10	8" Sonic	SP	SAND:
10-11	8" Sonic	SW	SAND:
11-12.5	8" Sonic	SP/SM	SAND with silt:
12.5-13	8" Sonic	SM	Silty SAND:
13-15	8" Sonic	ML	Sandy SILT:
15-15.5	8" Sonic	SP	SAND:
15.5-17	8" Sonic	SC	Clayey SAND with gravel:
17-17.5	8" Sonic	SW	Gravelly SAND with sand:
17.5-19	8" Sonic		SAND:
19-20	8" Sonic		SAND:
20-22.5	8" Sonic	GW	Sandy GRAVEL:
22.5-23.5	8" Sonic	SW	SAND:
23.5-25	8" Sonic	SP/SM	SAND with silt:
25-32.5	8" Sonic		SAND with silt:
32.5-33.5	8" Sonic	SW/SC	Gravelly SAND with clay:
33.5-35	8" Sonic	SP/SM	SAND with silt:
35-37.5	8" Sonic		SAND with silt:
37.5-39	8" Sonic	SC/CL	Clayey SAND/Sandy CLAY:
39-40	8" Sonic	SC	Clayey SAND:
40-45	8" Sonic	SC/CL	Clayey SAND/Sandy CLAY:
45-45.5	8" Sonic	SM	Silty SAND with clay:
45.5-47.5	8" Sonic	SC/CL	Clayey SAND/Sandy CLAY:
47.5-49.5	8" Sonic	CH/SC	Sandy CLAY/Clayey SAND:
49.5-50	8" Sonic	SP/SM	SAND with silt:
50-51.5	8" Sonic	SC	Clayey SAND:
51.5-52.5	8" Sonic	SP/SC	SAND with clay:
52.5-55	8" Sonic	SP	SAND:
55-56.5	8" Sonic	CH	Sandy CLAY:
56.5-57.5	8" Sonic	SC	Clayey SAND:
57.5-59	8" Sonic	ML	Clayey SILT with sand:
59-60	8" Sonic	CH	Sandy CLAY:
60-62.5	8" Sonic	SC	Clayey SAND:
62.5-64	8" Sonic	CH	Sandy CLAY:
64-65	8" Sonic	SM	Silty SAND:
65-66.5	8" Sonic	SP	SAND:
66.5-67.5	8" Sonic	SM	Silty SAND:
67.5-75	8" Sonic	SW	SAND:

TD = 75'; PVC 4-inch screen from 65 to 75; PVC 4-inch riser from -2.5 to 65

Drilling Method: Prosonic T600, 8" Rotosonic

Drilling Company - Cascade Drilling

Driller - Rick Mallett

Geologist - Michael Sauerwein

Above-grade, 5-feet. long, 8-in. dia., steel
Wellhead Protective Monument set in a 2X2
Concrete Pad ~ 2.5-feet. stick-up

Ground Surface

8-inch diameter,
from 0 to 75-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 65 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 58-feet bgs

At Time of Drilling,
Depth to Uppermost
Ground Water ~ 61-feet bgs

Bentonite medium chips,
from 58 to 63 feet bgs

Sand Filter Pack:
16/30 washed silica sand,
2-feet above screen
from 63 to 75 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 65 to 75 feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

Total Depth (TD) = 75 feet bgs



IPSC – WASTEWATER HOLDING BASIN AREA
DELTA, UTAH

Well WW-U-2 Schematic

Date Drawn
8/11/15

Design by

Drawn by

MS

Scale

Last Revision
Date

SI-U-1

Interval (feet)	USCS	Sample Description
8/12/2015		
0-0.5	TOPSOIL	Surface - Sand and Gravel, roots and grass.
0.5-2.5	SP/SM	SAND with silt:
2.5-5	SP	SAND:
5-6.5	SP/SM	SAND with silt:
6.5-7.5	SW/SM	SAND with silt:
7.5-8	SW	SAND:
8-12.5	SP	SAND:
12.5-17.5		SAND:
17.5-18	SP/SM	SAND with silt:
18-19	SM	Silty SAND:
19-20	CL	CLAY:
20-21.5	SP	SAND:
21.5-22.5	SP/SM	Gravelly SAND with silt:
22.5-26.5	SW	SAND:
26.5-27.5	SW/SC	SAND with clay:
27.5-29.5	ML	Sandy SILT with clay:
29.5-30	SP	SAND:
30-32	ML	Sandy SILT with clay:
32-32.5	SW	SAND with gravel:
32.5-38	SC	Clayey SAND:
38-40	SM	Silty SAND:
40-42.5	SP/SM	SAND with silt:
42.5-44.25	GW	Sandy GRAVEL with clay:
44.25-45	SM	Silty SAND:
45-46.5	SC	Clayey SAND:
46.5-47.75	SP/SC	SAND with clay:
47.75-52.5	SP	SAND:
52.5-54	CH	CLAY:
54-55	SC/CH	Clayey SAND/Sandy CLAY:
55-60	CH	CLAY:
60-62.5		CLAY:
62.5-66		CLAY:
66-70	SC	Clayey SAND:
70-70.75	ML	Clayey SILT with sand:
70.75-71.5	CH	CLAY:
71.5-72.5	SP/SC	SAND with clay:
72.5-75	SP/SM	SAND with silt:
75-75.75	SM	Silty SAND:
75.75-77	SC	Clayey SAND:
77-80	SP/SM	SAND with silt:

TD = 80'; PVC 4-inch screen from 69 to 79; PVC 4-inch riser from -2.5 to 69
Drilling Method: Prosonic T600, 8" Rotasonic

Drilling Company - Cascade Drilling
Driller - Rick Mallett
Geologist - Michael Sauerwein

Above-grade, 5-foot long, 6-inch diameter, steel
Wellhead Protective Monument set in Concrete

~ 2.5-foot. stick-up

Ground Surface

8-inch diameter,
from 0 to 80-feet bgs

4-inch diameter, Sch. 40 PVC,
from ~ 2.0 feet above ground surface (ags)
to 69 feet below ground surface (bgs)

Cement-Bentonite gel (~ 10:1) Grout,
Tremie-Pipe Slurry,
from 0 to 62-feet bgs

Bentonite medium chips,
from 62 to 67 feet bgs

At Time of Drilling,
Depth to Uppermost
Groundwater ~ 67-feet bgs

Centralizers - placed at the bottom
and the top of the well screen.

#16/30 washed silica sand,
2-feet above screen
from 67 to 80 feet bgs

10-foot length; 4-inch diameter
Sch. 40 PVC, 0.020"-slotted,
from 69 to 79 feet bgs

Total Depth (TD) = 80 feet bgs



IPSC – COAL STORAGE AND UNLOADING AREA
DELTA, UTAH

Well SHU-1 Schematic

Date Drawn
8/12/15

Design by

Drawn by

MS

Scale

Last Revision
Date



DRILLING LOG

PROJECT NAME: Intermountain Power Plant
BORING/MONITORING WELL: WR-101 / RW-2
DRILLING FIRM: Boart Longyear
BORING METHOD: Sonic
BORING DIAMETER: 10.0-inch

PROJECT No.: 07.00408.01
COMPLETION DATE: 12/11/2007
DRILLER: Robert
LOGGED BY: Thomas Hedrick
DEPTH TO WATER (at drilling): ~ 40 ft.
DEPTH TO WATER (static > 24-hrs.): 36.09 ft.

WR-101 / RW-2

Interval (feet)	Drilling Method	Sample Description
0 - 9	SDM	Light Brown fine grained SAND with clay matrix
9 - 17	SDM	Light Brown clayey SILT
17 - 20	SDM	Light Brown silty CLAY
20 - 25	SDM	Brown medium grained SAND with pebbles, Dry and loose
25 - 28	SDM	Light Brown silty CLAY, very tight, MOIST
28 - 38	SDM	Light Brown CLAY, Moist
38 - 42	SDM	Brown fine grained SAND, Moist
42 - 50	SDM	Brownish/Red CLAY, Dry
50 - 56	SDM	Brown medium grained SAND with clay matrix, very moist/saturated
56 - 58	SDM	Brown silty CLAY, moist
60 - 66	SDM	Brown medium grained SAND, Saturated
		Total Depth = 66 feet BGS, Screened from 66 – 46', Sand 40-66', Bentonite 36-40', Grout 0-36'

Well Completion Materials and Depth Intervals (ft.)

Surface Completion: Stick-up

Casing, solid: 6 inch diameter sch. 80 PVC casing, 0-7 ft.

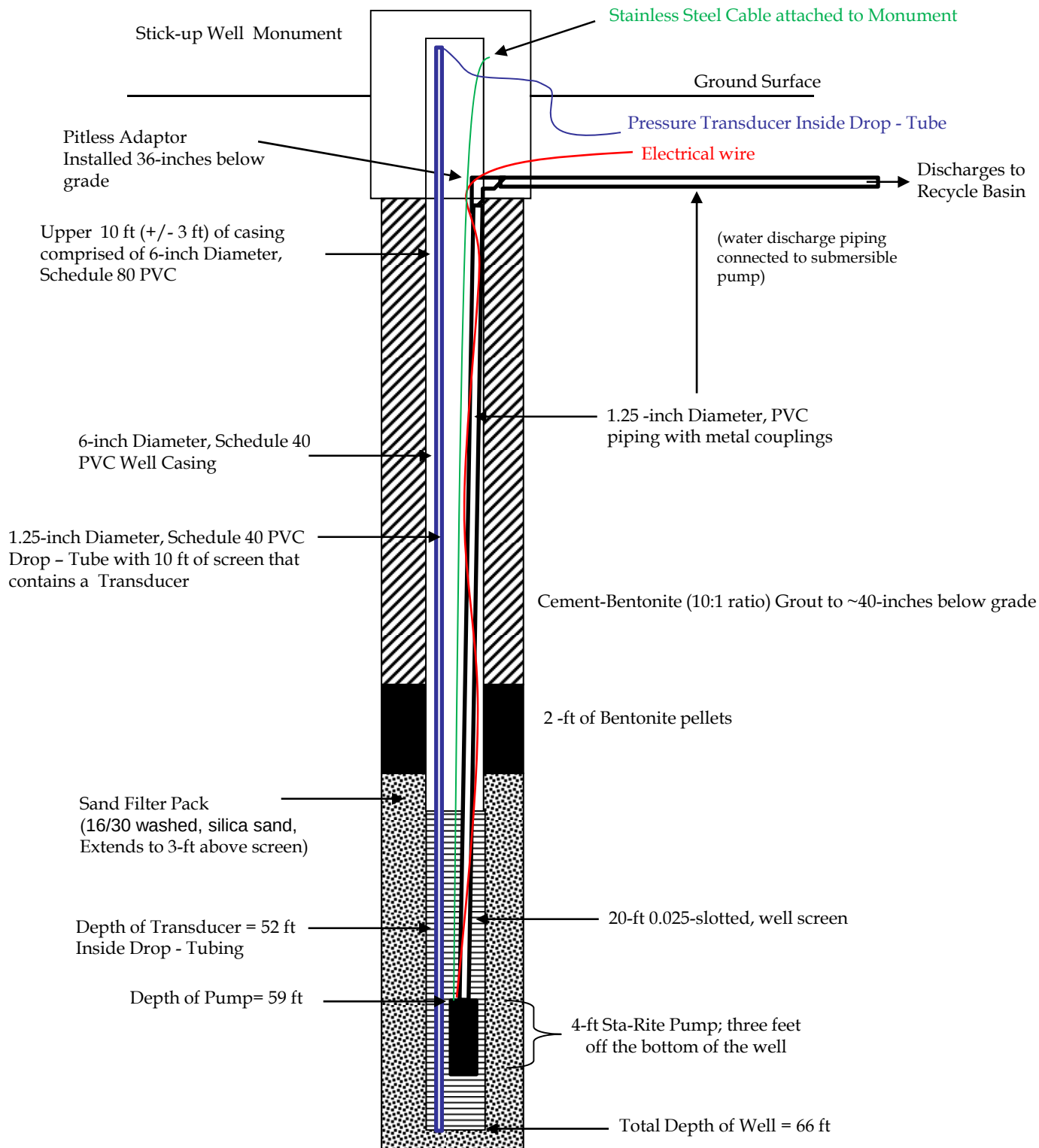
Casing, solid: 6 inch diameter sch. 40 PVC casing, 7 -46 ft.

Screen: 6 inch diameter sch. 40 PVC well screen 0.025-slotted, 46-66 ft.

Sand Pack: 16/30 washed, silica sand, 40-66 ft.

Bentonite Seal: "Pure Gold" Bentonite Pellets, 36-40 ft.

Cement-Bentonite (10:1 ratio) Grout: 0-36 ft.



INTERMOUNTAIN POWER PLANT
850 WEST BRUSH WELLMAN ROAD – DELTA, MILLARD COUNTY, UTAH

Ground Water Recovery Well WR-101 Schematic

Design by

Drawn by

Scale

Date Drawn

Last Revision Date



DRILLING LOG

PROJECT NAME: Intermountain Power Plant
BORING/MONITORING WELL: WR-102

PROJECT No.: 08.00463.01
COMPLETION DATE: 3/30/2009

DRILLING FIRM: Boart Longyear
BORING METHOD: Sonic Drilling Method
BORING DIAMETER: 10.0-inch

DRILLER: Chato
LOGGED BY: Thomas Hedrick
DEPTH TO WATER (at drilling): ~ 40 ft.
DEPTH TO WATER (static > 24-hrs.): ~ 27 ft.

WR-102

Interval (feet)	Drilling Method	Sample Description
0 - 11	SDM	Light Brown fine grained SAND with pebbles present from 3 - 7 feet, Dry
11 - 16	SDM	Light Brown fine grained SAND with interbeds of brown CLAY, Dry
16 - 35	SDM	Light Gray CLAY, moist at ~ 35 feet,
35 - 37	SDM	Light Gray Clay with a fine to medium grained sandy matrix, very moist
37 - 48	SDM	Brown fine to medium grained SAND, saturated
48 - 50	SDM	Brown CLAY, dry
50 - 53	SDM	Brown to Black medium grained SAND, saturated
53 - 57	SDM	Brown CLAY with two fine grained sand layer present
		Total Depth = 57 feet BGS, Screened from 37 – 57', Sand 34-57', Bentonite 31-34, Grout 0-31'

Well Completion Materials and Depth Intervals (ft.)

Surface Completion: Stick-up

Casing, solid: 6 inch diameter sch. 80 PVC casing, 0-9 ft.

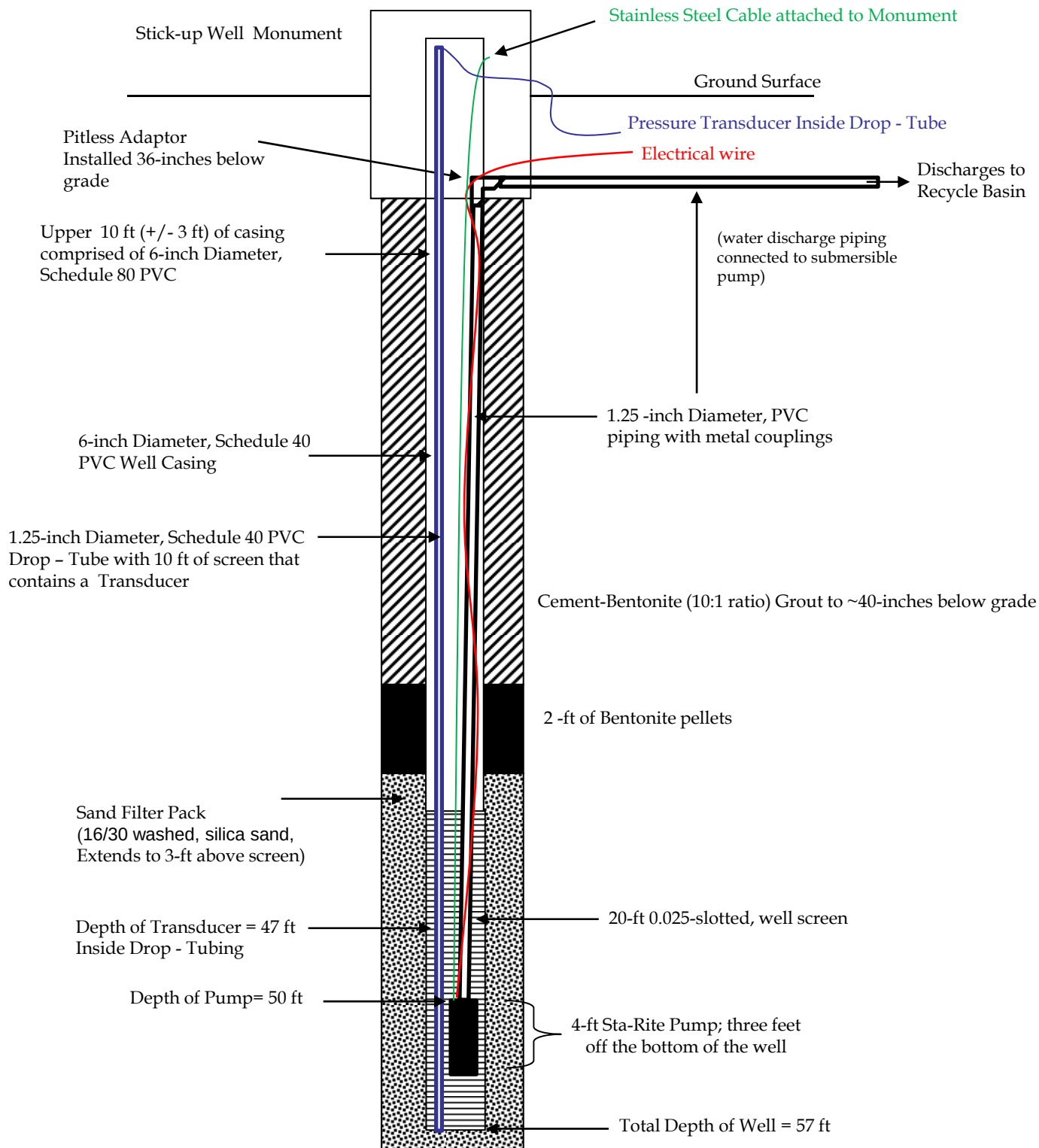
Casing, solid: 6 inch diameter sch. 40 PVC casing, 9 -37 ft.

Screen: 6 inch diameter sch. 40 PVC well screen 0.025-slotted, 37-57 ft.

Sand Pack: 16/30 washed, silica sand, 34-57 ft.

Bentonite Seal: "Pure Gold" Bentonite Pellets, 31-34 ft.

Cement-Bentonite (10:1 ratio) Grout: 0-31 ft.



INTERMOUNTAIN POWER PLANT
850 WEST BRUSH WELLMAN ROAD – DELTA, MILLARD COUNTY, UTAH

Ground Water Recovery Well WR-102 Schematic

Design by

Drawn by

Scale

Date Drawn

Last Revision Date



DRILLING LOG

PROJECT NAME: Intermountain Power
Plant BORING/MONITORING WELL: WR-103

PROJECT No.: 08.00463.01
COMPLETION DATE: 3/31/2009

DRILLING FIRM: Boart Longyear
BORING METHOD: Sonic
BORING DIAMETER: 10.0-inch

DRILLER: Chato
LOGGED BY: Thomas Hedrick
DEPTH TO WATER (at drilling): ~ 40 ft.
DEPTH TO WATER (static > 24-hrs.): ~ 30 ft.

WR-103

Interval (feet)	Drilling Method	Sample Description
0 - 3	SDM	Brown to Light brown fine grained SAND to silt, Dry
3 - 15	SDM	Light brown fine to medium grained SAND, pebbles present from 3 - 5 feet, Dry
15 - 17	SDM	Light brown fine to medium grained SAND, with interbeds of light brown CLAY with a sandy matrix, Dry
17 - 24	SDM	Light brown CLAY, Dry
24 - 37	SDM	Reddish Gray CLAY, Dry
37 - 45	SDM	Brown to Black medium fine to medium grained SAND, very moist
45 - 47	SDM	Brown fine grained SAND with a CLAY matrix, very moist
47 - 52	SDM	Brown Fine to medium grained SAND, saturated
52 - 55	SDM	Red CLAY, dry
		Total Depth = 55 feet BGS, Screened from 35 – 55', Sand 32-55', Bentonite 29-32, Grout 0-29'

Well Completion Materials and Depth Intervals (ft.)

Surface Completion: Stick-up

Casing, solid: 6 inch diameter sch. 80 PVC casing, 0-6.5 ft.

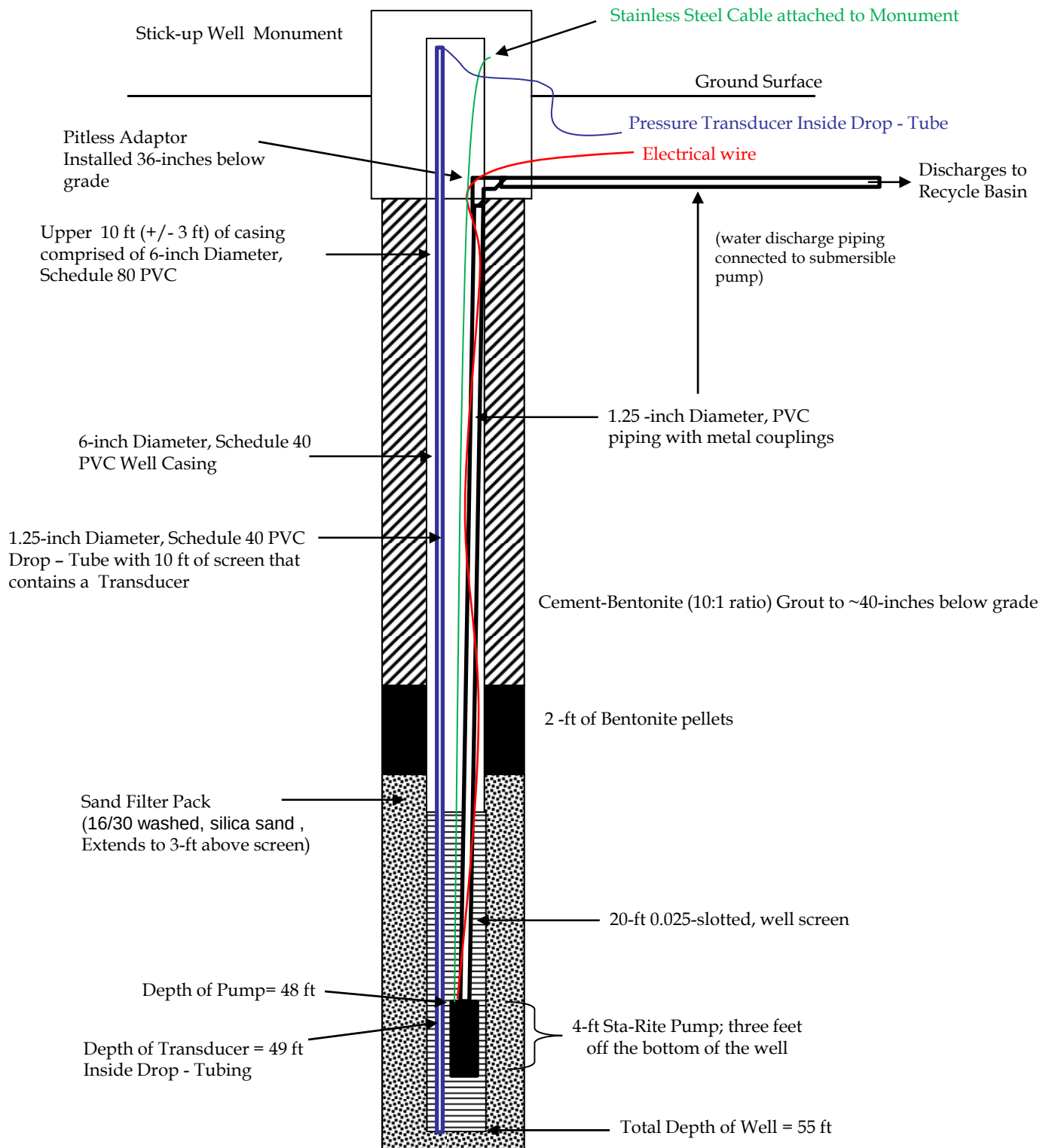
Casing, solid: 6 inch diameter sch. 40 PVC casing, 6.5 -35 ft.

Screen: 6 inch diameter sch. 40 PVC well screen 0.025-slotted, 35-55 ft.

Sand Pack: 16/30 washed, silica sand, 32-55 ft.

Bentonite Seal: "Pure Gold" Bentonite Pellets, 29-32 ft.

Cement-Bentonite (10:1 ratio) Grout: 0-29 ft.



INTERMOUNTAIN POWER PLANT
850 WEST BRUSH WELLMAN ROAD – DELTA, MILLARD COUNTY, UTAH

Ground Water Recovery Well WR-103 Schematic

Design by

Drawn by

Scale

Date Drawn

Last Revision
Date

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

ATTACHMENT 2 TABULATED GROUND WATER LEVEL DATA

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	33.23	12/7/2015	12:54
WW-U-2	23.42	12/7/2015	12:59
SI-U-1	32.47	12/7/2015	13:09
CL-U-1	32.02	12/7/2015	13:35
CL-U-2	37.55	12/7/2015	13:32
CL-W-1	31.05	12/7/2015	13:49
CL-W-2	33.14	12/7/2015	15:55
CL-W-3	31.54	12/7/2015	9:50
CL-W-4	30.56	12/7/2015	11:34
CL-W-5	29.76	12/7/2015	13:21
CL-W-6	28.71	12/7/2015	15:00
CL-W-7	35.23	12/7/2015	13:41
CL-W-8	32.37	12/7/2015	13:47
BA-U-1	39.21	12/7/2015	13:15
BA-U-2	33.26	12/7/2015	13:22
BAC-1	39.32	12/7/2015	16:58
BAC-2	51.38	12/7/2015	17:22
BAC-3	51.02	12/7/2015	17:34
BAC-4	35.35	12/7/2015	17:44
BAC-5	32.62	12/7/2015	17:47
BAC-6	29.76	12/7/2015	17:51
BAC-7	31.26	12/7/2015	17:54
WWC-1	21.16	12/7/2015	17:35
WWC-2	22.16	12/7/2015	17:40
WWC-3	16.42	12/7/2015	17:45
WWC-4	17.85	12/7/2015	17:50
WWC-5	18.78	12/7/2015	17:55

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	33.08	3/3/2016	10:23
WW-U-2	23.52	3/3/2016	9:21
SI-U-1	32.45	3/3/2016	10:27
CL-U-1	31.53	3/3/2016	9:33
CL-U-2	37.09	3/3/2016	9:31
CL-W-1	31.56	3/3/2016	10:36
CL-W-2	32.59	3/3/2016	10:34
CL-W-3	30.91	3/3/2016	13:05
CL-W-4	30.02	3/3/2016	13:02
CL-W-5	28.17	3/3/2016	13:00
CL-W-6	28.13	3/3/2016	12:57
CL-W-7	34.75	3/3/2016	10:40
CL-W-8	31.89	3/3/2016	10:38
BA-U-1	38.82	3/3/2016	9:27
BA-U-2	33.05	3/3/2016	9:24
BAC-1	39.85	3/3/2016	9:16
BAC-2	51.31	3/3/2016	9:11
BAC-3	51.29	3/3/2016	9:07
BAC-4	34.97	3/3/2016	8:59
BAC-5	32.07	3/3/2016	8:57
BAC-6	29.27	3/3/2016	8:55
BAC-7	29.78	3/3/2016	8:48
WWC-1	20.92	3/3/2016	10:21
WWC-2	21.79	3/3/2016	10:17
WWC-3	16.12	3/3/2016	10:12
WWC-4	17.56	3/3/2016	10:11
WWC-5	18.5	3/3/2016	10:09

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	34.2	6/24/2016	9:18
WW-U-2	24.21	6/24/2016	9:40
SI-U-1	32.93	6/24/2016	9:23
CL-U-1	31.88	6/24/2016	9:52
CL-U-2	37.41	6/24/2016	9:49
CL-W-1	30.67	6/24/2016	10:20
CL-W-2	32.49	6/24/2016	10:02
CL-W-3	30.78	6/24/2016	10:15
CL-W-4	29.86	6/24/2016	10:13
CL-W-5	27.97	6/24/2016	10:10
CL-W-6	27.9	6/24/2016	10:06
CL-W-7	34.98	6/24/2016	10:28
CL-W-8	32.07	6/24/2016	10:25
BA-U-1	39.13	6/24/2016	9:44
BA-U-2	33.49	6/24/2016	9:34
BAC-1	40.42	6/24/2016	11:40
BAC-2	51.38	6/24/2016	11:46
BAC-3	51.35	6/24/2016	11:52
BAC-4	34.85	6/24/2016	10:38
BAC-5	31.79	6/24/2016	10:41
BAC-6	28.86	6/24/2016	10:44
BAC-7	30.26	6/24/2016	10:47
WWC-1	21.47	6/24/2016	11:25
WWC-2	22.33	6/24/2016	11:22
WWC-3	16.63	6/24/2016	11:17
WWC-4	18.07	6/24/2016	11:14
WWC-5	19.03	6/24/2016	11:12

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	34.42	8/30/2016	9:22
WW-U-2	24.57	8/30/2016	9:27
SI-U-1	33.49	8/30/2016	9:41
CL-U-1	32.74	8/30/2016	16:16
CL-U-2	38.31	8/30/2016	16:17
CL-W-1	31.52	8/30/2016	16:28
CL-W-2	33.5	8/30/2016	16:31
CL-W-3	31.81	8/30/2016	16:34
CL-W-4	30.89	8/30/2016	16:38
CL-W-5	28.99	8/30/2016	16:39
CL-W-6	28.95	8/30/2016	16:43
CL-W-7	35.84	8/30/2016	16:23
CL-W-8	32.93	8/30/2016	16:25
BA-U-1	39.95	8/30/2016	10.:11
BA-U-2	34.24	8/30/2016	10:20
BAC-1	40.97	8/30/2016	11:42
BAC-2	52.1	8/30/2016	13:03
BAC-3	51.94	8/30/2016	14:40
BAC-4	35.68	8/30/2016	9:41
BAC-5	32.67	8/30/2016	9:36
BAC-6	29.64	8/30/2016	9:30
BAC-7	31.09	8/30/2016	8:33
WWC-1	22.4	8/30/2016	10:27
WWC-2	22.87	8/30/2016	10:31
WWC-3	17.17	8/30/2016	10:36
WWC-4	18.61	8/30/2016	10:39
WWC-5	19.6	8/30/2016	10:45

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	34.74	11/9/2016	13:36
WW-U-2	24.81	11/9/2016	13:39
SI-U-1	33.74	11/9/2016	13:42
CL-U-1	33.04	11/9/2016	13:56
CL-U-2	38.59	11/9/2016	13:54
CL-W-1	31.89	11/9/2016	14:07
CL-W-2	34.00	11/9/2016	14:10
CL-W-3	32.34	11/9/2016	14:15
CL-W-4	31.43	11/9/2016	14:18
CL-W-5	29.58	11/9/2016	14:19
CL-W-6	29.55	11/9/2016	14:20
CL-W-7	36.20	11/9/2016	14:03
CL-W-8	33.28	11/9/2016	14:06
BA-U-1	40.27	11/9/2016	13:49
BA-U-2	34.59	11/9/2016	13:47
BAC-1	41.51	11/9/2016	10:00
BAC-2	52.61	11/9/2016	10:02
BAC-3	52.10	11/9/2016	10:04
BAC-4	35.98	11/9/2016	14:36
BAC-5	32.90	11/9/2016	14:34
BAC-6	29.81	11/9/2016	14:31
BAC-7	30.92	11/9/2016	14:28
WWC-1	22.27	11/9/2016	13:28
WWC-2	23.22	11/9/2016	13:30
WWC-3	17.43	11/9/2016	13:23
WWC-4	18.88	11/9/2016	13:20
WWC-5	19.85	11/9/2016	13:18

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	33.88	3/30/2017	10:22
WW-U-2	22.19	3/30/2017	10:32
SI-U-1	32.89	3/30/2017	10:39
CL-U-1	31.99	3/30/2017	10:53
CL-U-2	37.56	3/30/2017	10:51
CL-W-1	32.84	3/30/2017	11:58
CL-W-2	32.72	3/30/2017	11:35
CL-W-3	31.08	3/30/2017	11:38
CL-W-4	30.25	3/30/2017	11:40
CL-W-5	28.41	3/30/2017	11:43
CL-W-6	28.40	3/30/2017	11:45
CL-W-7	35.15	3/30/2017	11:50
CL-W-8	32.04	3/30/2017	11:54
BA-U-1	39.29	3/30/2017	10:47
BA-U-2	33.67	3/30/2017	10:43
BAC-1	40.89	3/30/2017	12:23
BAC-2	51.32	3/30/2017	12:28
BAC-3	51.94	3/30/2017	12:33
BAC-4	34.73	3/30/2017	11:09
BAC-5	31.71	3/30/2017	11:07
BAC-6	28.74	3/30/2017	11:03
BAC-7	30.03	3/30/2017	11:01
WWC-1	18.91	3/30/2017	11:22
WWC-2	22.21	3/30/2017	11:27
WWC-3	16.53	3/30/2017	11:17
WWC-4	17.97	3/30/2017	11:20
WWC-5	17.94	3/30/2017	11:22

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	34.70	6/21/2017	8:10
WW-U-2	24.75	6/21/2017	8:19
SI-U-1	33.46	6/21/2017	8:24
CL-U-1	32.13	6/21/2017	8:42
CL-U-2	37.72	6/21/2017	8:38
CL-W-1	30.74	6/21/2017	9:24
CL-W-2	32.35	6/21/2017	9:27
CL-W-3	30.72	6/21/2017	9:29
CL-W-4	29.90	6/21/2017	9:32
CL-W-5	28.06	6/21/2017	9:34
CL-W-6	28.01	6/21/2017	9:36
CL-W-7	35.16	6/21/2017	9:20
CL-W-8	32.21	6/21/2017	9:22
BA-U-1	39.41	6/21/2017	8:32
BA-U-2	33.90	6/21/2017	8:29
BAC-1	41.29	6/21/2017	11:30
BAC-2	50.94	6/21/2017	11:36
BAC-3	51.14	6/21/2017	11:41
BAC-4	34.08	6/21/2017	9:50
BAC-5	30.98	6/21/2017	9:47
BAC-6	28.03	6/21/2017	9:46
BAC-7	29.30	6/21/2017	9:44
WWC-1	21.95	6/21/2017	13:16
WWC-2	22.74	6/21/2017	8:01
WWC-3	17.04	6/21/2017	11:51
WWC-4	18.48	6/21/2017	11:48
WWC-5	19.44	6/21/2017	11:46

CCR Well Levels

Well	Depth	Date	Time
WW-U-1	35.43	10/4/2017	12:47
WW-U-2	25.49	10/5/2017	12:53
SI-U-1	34.28	10/6/2017	12:59
CL-U-1	33.25	10/7/2017	13:13
CL-U-2	38.81	10/8/2017	13:10
CL-W-1	31.80	10/9/2017	13:31
CL-W-2	33.60	10/10/2017	13:27
CL-W-3	31.93	10/11/2017	13:35
CL-W-4	31.09	10/12/2017	13:23
CL-W-5	29.26	10/13/2017	13:20
CL-W-6	29.26	10/14/2017	13:19
CL-W-7	36.23	10/15/2017	13:34
CL-W-8	33.28	10/16/2017	13:32
BA-U-1	40.42	10/17/2017	13:05
BA-U-2	34.85	10/18/2017	13:04
BAC-1	41.78	10/19/2017	13:16
BAC-2	52.03	10/20/2017	13:11
BAC-3	52.31	10/21/2017	13:07
BAC-4	35.29	10/22/2017	13:18
BAC-5	32.19	10/23/2017	13:22
BAC-6	29.24	10/24/2017	13:27
BAC-7	30.48	10/25/2017	13:33
WWC-1	22.69	10/26/2017	9:42
WWC-2	23.51	10/27/2017	13:43
WWC-3	17.80	10/28/2017	13:44
WWC-4	19.27	10/29/2017	13:42
WWC-5	20.26	10/30/2017	13:40

CCR Well Levels

Well	Depth	Date
WW-U-1	36.14	3/26/2018
WW-U-2	25.79	3/26/2018
SI-U-1	34.04	3/26/2018
CL-U-1	32.64	3/26/2018
CL-U-2	38.22	3/26/2018
CL-W-1	31.73	3/26/2018
CL-W-2	33.49	3/26/2018
CL-W-3	31.73	3/26/2018
CL-W-4	30.94	3/26/2018
CL-W-5	29.00	3/26/2018
CL-W-6	28.96	3/26/2018
CL-W-7	35.99	3/26/2018
CL-W-8	33.11	3/26/2018
BA-U-1	40.28	3/26/2018
BA-U-2	34.74	3/26/2018
BAC-1	42.05	3/26/2018
BAC-2	34.62	3/26/2018
BAC-3	52.76	3/26/2018
BAC-4	35.82	3/26/2018
BAC-5	33.28	3/26/2018
BAC-6	30.53	3/26/2018
BAC-7	31.88	3/26/2018
WWC-1	22.56	3/26/2018
WWC-2	23.31	3/26/2018
WWC-3	17.55	3/26/2018
WWC-4	19.04	3/26/2018
WWC-5	20.08	3/26/2018

CCR Well Levels

Well	Depth	Date
WW-U-1	36.20	6/13/2018
WW-U-2	25.95	6/13/2018
SI-U-1	34.27	6/13/2018
CL-U-1	32.83	6/13/2018
CL-U-2	38.42	6/13/2018
CL-W-1	31.92	6/13/2018
CL-W-2	33.53	6/13/2018
CL-W-3	31.72	6/13/2018
CL-W-4	30.79	6/13/2018
CL-W-5	28.95	6/13/2018
CL-W-6	29.12	6/13/2018
CL-W-7	36.19	6/13/2018
CL-W-8	33.31	6/13/2018
BA-U-1	40.54	6/13/2018
BA-U-2	35.00	6/13/2018
BAC-1	42.29	6/13/2018
BAC-2	52.68	6/13/2018
BAC-3	53.92	6/13/2018
BAC-4	35.83	6/13/2018
BAC-5	33.32	6/13/2018
BAC-6	30.52	6/13/2018
BAC-7	31.83	6/13/2018
WWC-1	22.89	6/13/2018
WWC-2	23.64	6/13/2018
WWC-3	17.92	6/13/2018
WWC-4	19.34	6/13/2018
WWC-5	20.19	6/13/2018

CCR Well Levels

Well	Depth	Date
WW-U-1	36.74	10/24/2018
WW-U-2	26.65	10/24/2018
SI-U-1	35.25	10/24/2018
CL-U-1	34.43	10/24/2018
CL-U-2	40.02	10/24/2018
CL-W-1	33.69	10/24/2018
CL-W-2	35.53	10/24/2018
CL-W-3	33.67	10/24/2018
CL-W-4	32.74	10/24/2018
CL-W-5	30.84	10/24/2018
CL-W-6	30.79	10/24/2018
CL-W-7	37.82	10/24/2018
CL-W-8	35.01	10/24/2018
BA-U-1	42.07	10/24/2018
BA-U-2	36.40	10/24/2018
BAC-1	43.46	10/24/2018
BAC-2	54.24	10/24/2018
BAC-3	54.22	10/24/2018
BAC-4	35.66	10/24/2018
BAC-5	35.70	10/24/2018
BAC-6	33.22	10/24/2018
BAC-7	34.85	10/24/2018
WWC-1	23.70	10/24/2018
WWC-2	24.48	10/24/2018
WWC-3	18.74	10/24/2018
WWC-4	20.22	10/24/2018
WWC-5	21.23	10/24/2018

Original CCR Wells
Appendix III and IV Constituents
America West COC #1

CCR Wells	Level	Date
WW-U-1	35.34	5/20/19
WW-U-2	25.90	5/20/19
SI-U-1	34.60	5/20/19
CL-U-1	33.35	5/20/19
CL-U-2	38.93	5/20/19
CL-W-1	32.93	5/20/19
CL-W-2	34.76	5/20/19
CL-W-3	32.86	5/20/19
CL-W-4	31.89	5/20/19
CL-W-5	29.99	5/20/19
CL-W-6	29.91	5/20/19
CL-W-7	36.94	5/20/19
CL-W-8	34.18	5/20/19
BA-U-1	41.22	5/20/19
BA-U-2	35.55	5/20/19
BAC-1	43.02	5/20/19
BAC-2	54.19	5/20/19
BAC-3	54.69	5/20/19
BAC-4	37.62	5/20/19
BAC-5	35.66	5/20/19
BAC-6	33.08	5/20/19
BAC-7	34.69	5/20/19
WWC-1	22.95	5/20/19
WWC-2	24.70	5/20/19
WWC-3	18.01	5/20/19
WWC-4	19.47	5/20/19
WWC-5	20.47	5/20/19

CCR New Wells
Appendix III and IV Constituents
America West COC #2

Investigative W	Level	Date
RW-4	19.85	5/20/19
RW-5	45.41	5/20/19
RW-7	13.80	5/20/19
WDB-19	28.00	5/20/19

New CCR Wells
Appendix III and IV Constituents
America West COC #1

Investigative W	Level	Date
CLW-9	18.37	5/20/19
WWC-6	35.74	5/20/19
WWC-7	17.47	5/20/19
WWC-8	27.06	5/20/19
WWC-9	23.80	5/20/19
WWC-10	17.80	5/20/19
BAC-8	45.65	5/20/19
BAC-9	46.70	5/20/19
BAC-10	47.21	5/20/19
CLU-3	41.49	5/20/19

Appendix IV - Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226 and 228 combined

State Discharge Permit Wells
Chemtech COC #3

(All Constituents* - I	Level	Date
WR-101	54.61	5/20/19
WR-102	44.76	5/20/19
WR-103	47.30	5/20/19
EP-W-19	32.61	5/20/19

(TBS/Boron	Level	Date
RW-6	44.17	5/20/19
RW-9	42.91	5/20/19
WDB-7	41.72	5/20/19
EP-W-23	30.71	5/20/19
EP-W-27	28.92	5/20/19
WDB-19	28.00	5/20/19

* TDS, Boron, Chloride, Sulfate, Alkalinity, Sodium, Magnesium, Potassium, Calcium

Corrective Action Plan Well
Chemtech COC #4

(TDS)	Level	Date
RW-5	45.41	5/20/19

Appendix III - Boron, Calcium, Chloride, Fluoride, pH, Sulfate, TDS

Original CCR Wells

Appendix III and IV Constituents
America West COC #1

CCR Wells	Level	Date
WW-U-1	35.91	10/17/19
WW-U-2	26.64	10/17/19
SI-U-1	35.35	10/17/19
CL-U-1	34.52	10/17/19
CL-U-2	40.08	10/17/19
CL-W-1	33.81	10/17/19
CL-W-2	35.70	10/17/19
CL-W-3	33.85	10/17/19
CL-W-4	32.90	10/17/19
CL-W-5	31.02	10/17/19
CL-W-6	30.99	10/17/19
CL-W-7	37.98	10/17/19
CL-W-8	35.11	10/17/19
BA-U-1	42.09	10/17/19
BA-U-2	36.42	10/17/19
BAC-1	43.71	10/17/19
BAC-2	54.62	10/17/19
BAC-3	55.01	10/17/19
BAC-4	38.14	10/17/19
BAC-5	36.01	10/17/19
BAC-6	33.01	10/17/19
BAC-7	35.06	10/17/19
WWC-1	23.81	10/17/19
WWC-2	24.61	10/17/19
WWC-3	18.90	10/17/19
WWC-4	20.37	10/17/19
WWC-5	21.37	10/17/19

CCR New Wells

Appendix III and IV Constituents
America West COC #2

Investigative W	Level	Date
RW-4	20.69	10/17/19
RW-5	46.31	10/17/19
RW-7	14.74	10/17/19
WDB-19	29.11	10/17/19

New CCR Wells

Appendix III and IV Constituents
America West COC #1

Investigative W	Level	Date
CLW-9	36.97	10/17/19
WWC-6	19.57	10/17/19
WWC-7	19.20	10/17/19
WWC-8	28.15	10/17/19
WWC-9	24.86	10/17/19
WWC-10	19.40	10/17/19
BAC-8	46.07	10/17/19
BAC-9	47.18	10/17/19
BAC-10	47.80	10/17/19
CLU-3	42.49	10/17/19

Appendix IV - Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium 226 and 228 combined

State Discharge Permit Wells

Chemtech COC #3

(All Constituents* - I	Level	Date
WR-101	54.60	10/17/19
WR-102	43.14	10/17/19
WR-103	45.40	10/17/19
EP-W-19	33.52	10/17/19

(TBS/Boron	Level	Date
RW-6	44.69	10/17/19
RW-9	43.16	10/17/19
WDB-7	42.55	10/17/19
EP-W-23	31.66	10/17/19
EP-W-27	29.89	10/17/19
WDB-19	29.11	10/17/19

* TDS, Boron, Chloride, Sulfate, Alkalinity, Sodium, Magnesium, Potassium, Calcium

Corrective Action Plan Well

Chemtech COC #4

(TDS)	Level	Date
RW-5	46.31	10/17/19

Appendix III - Boron, Calcium, Chloride, Fluoride, pH, Sulfate, TDS

	Level	Date
WW-U-1	30.42	3/23/2020
WW-U-2	22.31	3/23/2020
SI-U-1	33.78	3/23/2020
CL-U-1	33.46	3/23/2020
CL-U-2	38.92	3/23/2020
CL-W-1	32.75	3/23/2020
CL-W-2	34.71	3/23/2020
CL-W-3	32.87	3/23/2020
CL-W-4	31.99	3/23/2020
CL-W-5	30.09	3/23/2020
CL-W-6	30.08	3/23/2020
CL-W-7	36.70	3/23/2020
CL-W-8	33.95	3/23/2020
BA-U-1	40.76	3/23/2020
BA-U-2	34.81	3/23/2020
BAC-1	41.89	3/23/2020
BAC-2	53.88	3/23/2020
BAC-3	54.42	3/23/2020
BAC-4	37.21	3/23/2020
BAC-5	35.05	3/23/2020
BAC-6	32.35	3/23/2020
BAC-7	33.95	3/23/2020
WWC-1	22.85	3/23/2020
WWC-2	23.80	3/23/2020
WWC-3	18.02	3/23/2020
WWC-4	19.42	3/23/2020
WWC-5	20.39	3/23/2020
CLW-9	36.13	3/23/2020
WWC-6	18.48	3/23/2020
WWC-7	17.68	3/23/2020
WWC-8	27.11	3/23/2020
WWC-9	23.98	3/23/2020
WWC-10	17.92	3/23/2020
WWC-11	22.01	3/23/2020
WWC-12	19.59	3/23/2020
WWC-13	18.66	3/23/2020
BAC-8	46.08	3/23/2020
BAC-9	47.08	3/23/2020
BAC-10	47.60	3/23/2020
BAC-11	47.73	3/23/2020
BAC-12	48.07	3/23/2020
BAC-13	45.11	3/23/2020
BAC-14	46.62	3/23/2020
BAC-15	45.92	3/23/2020
BAC-16	47.19	3/23/2020
BAC-17	45.33	3/23/2020
CLU-3	41.32	3/23/2020
RW-4	19.80	3/23/2020
RW-5	45.88	3/23/2020
RW-7	14.01	3/23/2020
WDB-19	28.19	3/23/2020
RW-1		3/23/2020
EPW-15	43.84	3/23/2020

Well Levels Recorded on 10/20/20

CCR Wells	Level
WW-U-1	35.28
WW-U-2	25.96
SI-U-1	35.19
CL-U-1	35.06
CL-U-2	40.63
CL-U-3	42.93
CL-W-1	34.22
CL-W-2	36.27
CL-W-3	34.42
CL-W-4	33.48
CL-W-5	31.62
CL-W-6	31.61
CL-W-7	38.26
CL-W-8	35.51
*CL-W-9	37.75
BA-U-1	42.35
BA-U-2	36.54
BAC-1	43.54
BAC-2	55.01
BAC-3	55.36
BAC-4	38.61
BAC-5	36.36
BAC-6	33.72
BAC-7	35.26
WWC-1	23.98
WWC-2	24.79
WWC-3	19.12
WWC-4	20.57
WWC-5	21.58
BAC-8	46.50
BAC-9	47.62
BAC-10	48.29
BAC-11	48.82
BAC-12	49.18
BAC-13	45.95
BAC-14	47.21
BAC-15	46.34
BAC-16	47.66
BAC-17	46.43
BAC-18	45.05
BAC-19	41.31
BAC-20	42.90
BAC-21	44.74
BAC-22	45.10
BAC-23	44.60
BAC-24	44.35
BAC-25	44.49
BAC-26	48.43
BAC-27	47.85
BAC-28	45.42
BAC-29	44.86
BAC-30	44.71
BAC-31	44.34
BAC-32	48.31
BAC-33	48.14
BAC-34	48.22
BAC-35	48.08
BAC-36	44.73
BAC-37	43.67
BAC-38	42.82
WWC-6	19.84
WWC-7	20.22
WWC-8	28.57
WWC-9	25.34
WWC-10	19.57
WWC-11	23.28
WWC-12	20.97
WWC-13	20.13
WWC-14	18.90
WWC-15	21.19
WWC-16	19.52
WWC-17	24.62
RW-3	38.71
RW-4	20.84
RW-5	46.95
RW-7	15.10
RW-8	43.97
EPW-15	44.53
WDB-5	45.33
WDB-17	40.46

WELL LEVELS 4/20/2021

Wells	Level	Date
WW-U-1	36.48	4/20/21
WW-U-2	26.49	4/20/21
SI-U-1	34.91	4/20/21
CL-U-1	34.21	4/20/21
CL-U-2	39.78	4/20/21
CL-U-3	42.23	4/20/21
CL-W-1	33.61	4/20/21
CL-W-2	35.61	4/20/21
CL-W-3	33.74	4/20/21
CL-W-4	32.79	4/20/21
CL-W-5	30.95	4/20/21
CL-W-6	30.90	4/20/21
CL-W-7	37.60	4/20/21
CL-W-8	34.91	4/20/21
CL-W-9	36.99	4/20/21
BA-U-1	41.84	4/20/21
BA-U-2	36.15	4/20/21
BAC-1	42.41	4/20/21
BAC-2	54.81	4/20/21
BAC-3	54.59	4/20/21
BAC-4	38.36	4/20/21
BAC-5	36.17	4/20/21
BAC-6	33.46	4/20/21
BAC-7	34.99	4/20/21
BAC-8	46.68	4/20/21
BAC-9	47.72	4/20/21

Wells	Level	Date
BAC-10	48.29	4/20/21
BAC-11	48.49	4/20/21
BAC-12	48.87	4/20/21
BAC-13	45.89	4/20/21
BAC-14	47.20	4/20/21
BAC-15	46.53	4/20/21
BAC-16	47.85	4/20/21
BAC-17	46.12	4/20/21
BAC-18	44.58	4/20/21
BAC-19	40.90	4/20/21
BAC-20	42.62	4/20/21
BAC-21	44.42	4/20/21
BAC-22	44.78	4/20/21
BAC-23	44.24	4/20/21
BAC-24	43.95	4/20/21
BAC-25	44.19	4/20/21
BAC-26	47.97	4/20/21
BAC-27	47.41	4/20/21
BAC-28	45.04	4/20/21
BAC-29	44.61	4/20/21
BAC-30	44.50	4/20/21
BAC-31	44.04	4/20/21
BAC-32	47.72	4/20/21
BAC-33	47.57	4/20/21
BAC-34	47.62	4/20/21
BAC-35	47.60	4/20/21

Wells	Level	Date
BAC-36	44.41	4/20/21
BAC-37	43.31	4/20/21
BAC-38	42.37	4/20/21
WWC-1	23.23	4/20/21
WWC-2	23.88	4/20/21
WWC-3	18.17	4/20/21
WWC-4	19.72	4/20/21
WWC-5	20.86	4/20/21
WWC-6	18.58	4/20/21
WWC-7	18.48	4/20/21
WWC-8	27.48	4/20/21
WWC-9	24.18	4/20/21
WWC-10	18.24	4/20/21
WWC-11	22.07	4/20/21
WWC-12	19.75	4/20/21
WWC-13	18.89	4/20/21
WWC-14	17.56	4/20/21
WWC-15	19.93	4/20/21
WWC-16	18.03	4/20/21
WWC-17	23.43	4/20/21
RW-1	43.69	4/20/21
RW-3	38.61	4/20/21
RW-4	20.31	4/20/21
RW-5	46.68	4/20/21
RW-6	45.20	4/20/21
RW-7	43.82	4/20/21

Wells	Level	Date
RW-8	43.92	4/20/21
RW-9	43.81	4/20/21
EMW-1	30.50	4/20/21
EMW-2	37.31	4/20/21
EMW-4L	33.28	4/20/21
EMW-5L	31.20	4/20/21
EMW-6	42.97	4/20/21
WDB-7	42.88	4/20/21
WDB-17	39.84	4/20/21
WDB-19	29.17	4/20/21
EP-W-19	33.78	4/20/21
EP-W-23	31.75	4/20/21
EP-W-27	29.98	4/20/21
WR-101	54.61	4/20/21
WR-102	45.16	4/20/21
WR-103	45.40	4/20/21

CCR Well Levels

Well	Level	Date
WW-U-1	36.99	11/10/2021
WW-U-2	27.27	11/10/2021
WWC-1	24.17	11/10/2021
WWC-2	24.84	11/10/2021
WWC-3	19.11	11/10/2021
WWC-4	20.63	11/10/2021
WWC-5	21.73	11/10/2021
WWC-6	19.9	11/10/2021
WWC-7	20.42	11/10/2021
WWC-8	28.67	11/10/2021
WWC-9	25.37	11/10/2021
WWC-10	19.6	11/10/2021
WWC-11	23.18	11/10/2021
WWC-12	21.02	11/10/2021
WWC-13	20.21	11/10/2021
WWC-14	18.58	11/10/2021
WWC-15	21.25	11/10/2021
WWC-16	19.11	11/10/2021
WWC-17	24.65	11/10/2021
SI-U-1	35.99	11/10/2021
CL-U-1	35.39	11/10/2021
CL-U-2	40.96	11/10/2021
CL-U-3	43.31	11/10/2021
CL-W-1	34.49	11/10/2021
CL-W-2	36.64	11/10/2021
CL-W-3	34.84	11/10/2021
CL-W-4	33.92	11/10/2021
CL-W-5	32.02	11/10/2021
CL-W-6	32.07	11/10/2021
CL-W-7	38.57	11/10/2021
CL-W-8	35.8	11/10/2021
CL-W-9	36.38	11/10/2021
RW-4	21.12	11/10/2021
RW-5	47.6	11/10/2021
RW-6	45.81	11/10/2021
RW-7	15.08	11/10/2021
RW-9	44.2	11/10/2021
EPW-19	34.71	11/10/2021
EPW-23	32.85	11/10/2021
EPW-27	31.03	11/10/2021
WDB-5	45.71	11/10/2021
WDB-7	43.8	11/10/2021
WDB-19	30.43	11/10/2021
LB-317	35.03	11/10/2021
LB-314	31.77	11/10/2021
LB-313	46.88	11/10/2021
EMW-8	56.39	11/10/2021
EMW-9	36.88	11/10/2021

Well	Level	Date
BA-U-1	42.71	11/10/2021
BA-U-2	37.04	11/10/2021
BAC-1	44.37	11/10/2021
BAC-2	55.59	11/10/2021
BAC-3	55.86	11/10/2021
BAC-4	39.03	11/10/2021
BAC-5	36.59	11/10/2021
BAC-6	33.85	11/10/2021
BAC-7	35.34	11/10/2021
BAC-8	47.16	11/10/2021
BAC-9	48.29	11/10/2021
BAC-10	48.95	11/10/2021
BAC-11	49.5	11/10/2021
BAC-12	49.83	11/10/2021
BAC-13	46.58	11/10/2021
BAC-14	47.78	11/10/2021
BAC-15	46.98	11/10/2021
BAC-16	48.3	11/10/2021
BAC-17	47.08	11/10/2021
BAC-18	45.62	11/10/2021
BAC-19	41.85	11/10/2021
BAC-20	43.49	11/10/2021
BAC-21	45.33	11/10/2021
BAC-22	45.69	11/10/2021
BAC-23	45.19	11/10/2021
BAC-24	44.95	11/10/2021
BAC-25	46.08	11/10/2021
BAC-26	48.93	11/10/2021
BAC-27	48.32	11/10/2021
BAC-28	45.95	11/10/2021
BAC-29	45.36	11/10/2021
BAC-30	45.34	11/10/2021
BAC-31	44.7	11/10/2021
BAC-32	48.7	11/10/2021
BAC-33	48.54	11/10/2021
BAC-34	48.85	11/10/2021
BAC-35	48.52	11/10/2021
BAC-36	45.28	11/10/2021
BAC-37	44.2	11/10/2021
BAC-38	43.38	11/10/2021
EP-2	38.23	11/10/2021
EP-3	37.72	11/10/2021
EP-4	39.35	11/10/2021
EP-5	28.12	11/10/2021
EP-6	20.9	11/10/2021
EP-7	16.7	11/10/2021
EP-8	39.52	11/10/2021
EP-9	40.54	11/10/2021
EP-10	38.88	11/10/2021
EP-11	44.18	11/10/2021

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION SUMMARY REPORT

January 2022

ATTACHMENT 3 TABULATED GROUND WATER MONITORING DATA

Round 1 Detection Monitoring - December 2-10, 2015

Landfill Wells	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
CL-U-1	< 0.500	68.9	418	0.813	7.82	131	1040	<0.00200	0.0378	0.126	<0.00200	<0.000500	0.00537	<0.00400	<0.00200	0.346	<0.000150	0.00459	<0.00200	<0.00200	0.52	0.5	1.02
CL-U-2	< 0.500	73.8	404	0.611	7.73	132	1020	<0.00200	0.0317	0.129	<0.00200	<0.000500	0.00613	<0.00400	<0.00200	0.325	<0.000150	0.00406	<0.00200	<0.00200	0.55	1.2	1.75
CLW-1	< 0.500	55.7	322	0.844	7.95	76.5	832	<0.00200	0.0264	0.105	<0.00200	<0.000500	0.00814	<0.00400	<0.00200	0.3	<0.000150	0.00574	<0.00200	<0.00200	0.56	1.6	2.16
CLW-2	< 0.500	53.9	432	0.695	7.75	108	976	<0.00200	0.0283	0.0957	<0.00200	<0.000500	0.00576	<0.00400	<0.00200	0.36	<0.000150	0.00472	<0.00200	<0.00200	0.51	1.1	1.61
CLW-3	< 0.500	45	367	0.948	7.86	123	928	<0.00200	0.0375	0.111	<0.00200	<0.000500	0.00346	<0.00400	<0.00200	0.337	<0.000150	0.00492	<0.00200	<0.00200	0.4	1.3	1.7
CLW-4	< 0.500	44.5	320	1.37	7.87	73.3	828	<0.00200	0.0308	0.122	<0.00200	<0.000500	0.00336	<0.00400	<0.00200	0.319	<0.000150	0.00584	<0.00200	<0.00200	0.34	1.9	2.24
CLW-5	< 0.500	38.4	345	1.51	7.81	88.3	872	<0.00200	0.0188	0.0864	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.0325	<0.000150	0.00841	<0.00200	<0.00200	0.37	1.6	1.97
CLW-6	< 0.500	33.6	325	1.38	7.71	74.5	820	<0.00200	0.0249	0.0879	<0.00200	<0.000500	0.00335	<0.00400	<0.00200	0.316	<0.000150	0.0104	<0.00200	<0.00200	0.37	0.63	1
CLW-7	< 0.500	47.3	339	0.792	7.81	66.4	812	<0.00200	0.0234	0.0593	<0.00200	<0.000500	0.00421	<0.00400	<0.00200	0.282	<0.000150	0.00331	<0.00200	<0.00200	0.14	0.52	0.66
CLW-8	< 0.500	43.6	324	0.797	7.8	70.5	772	<0.00200	0.0155	0.107	<0.00200	<0.000500	0.00463	<0.00400	<0.00200	0.285	<0.000150	0.00626	<0.00200	<0.00200	0.4	0.74	1.14

Round 1

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	13.46	7.74	-42	1720	443	2.12	-
CL-U-2	14.72	6.92	-38	1750	604	2.6	-
CLW-1	14.84	7.69	-45	1490	383	2.28	0.952
CLW-2	9.95	7.86	-144	1810	99.6	1.76	1.16
CLW-3	11.24	7.95	-158	1740	128	1.9	1.11
CLW-4	14.9	7.95	-165	1540	25.1	1.67	0.98
CLW-5	15.12	7.96	-134	1620	46.4	1.6	1.04
CLW-6	15.3	8	-193	1550	30.8	0.98	0.998
CLW-7	16.38	7.54	8	1430	90.9	7.01	0.917
CLW-8	15.01	7.58	0	1530	11.3	2.09	0.976

Bottom Ash	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
BA-U-1	< 0.500	51.4	430	1.21	8.06	121	984	<0.00200	0.0163	0.133	<0.00200	<0.000500	0.00305	<0.00400	<0.00200	0.313	<0.000150	0.0408	<0.00200	<0.00200	0.66	0.7	1.36
BA-U-2	< 0.500	53	343	0.727	8.9	48.9	82.4	<0.00200	0.0154	0.148	<0.00200	<0.000500	0.00971	<0.00400	<0.00200	0.297	<0.000150	0.0121	<0.00200	<0.00200	0.32	2.1	2.42
BAC-1	7.49	274	3280	0.299	7.37	3060	8860	0.00237	0.0146	0.1	<0.00200	<0.000500	0.00503	0.00605	<0.00200	1.52	<0.000150	0.143	0.0204	<0.00200	0.71	1.6	2.31
BAC-2	10.7	267	2000	0.741	7.29	3620	7820	<0.00200	0.0386	0.0472	<0.00200	<0.000500	0.0116	<0.00400	<0.00200	1.38	<0.000150	0.151	0.0164	<0.00200	0.48	0.94	1.42
BAC-3	6.09	387	2900	0.648	7.6	3840	9800	<0.00200	0.0191	0.0827	<0.00200	<0.000500	0.0615	<0.00400	<0.00200	2.13	<0.000150	0.0367	0.019	<0.00200	0.99	1.1	2.09
BAC-4	< 0.500	53	473	1.35	7.96	181	1150	<0.00200	0.0407	0.0821	<0.00200	<0.000500	0.0022	<0.00400	<0.00200	0.476	<0.000150	0.0104	<0.00200	<0.00200	0.19	0.5	0.69
BAC-5	< 0.500	51.1	483	1.11	7.83	129	1010	<0.00200	0.0357	0.0928	<0.00200	<0.000500	0.0161	<0.00400	<0.00200	0.479	<0.000150	0.00926	<0.00200	<0.00200	0.29	0.96	1.25
BAC-6	4.36	142	516	0.754	7.68	1080	2410	<0.00200	0.0134	0.0622	<0.00200	<0.000500	0.0363	<0.00400	<0.00200	0.599	<0.000150	0.0968	<0.00200	<0.00200	0.39	1.4	1.79
BAC-7	4.65	148	665	1.01	7.77	1360	2910	<0.00200	0.0191	0.0577	<0.00200	<0.000500	0.0264	<0.00400	<0.00200	0.681	<0.000150	0.0699	0.00276	<0.00200	0.46	0.92	1.38

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	14.56	7.93	-67	1590	106	2.51	-
BA-U-2	13.58	8.33	-85	1510	96.4	2.9	-
BAC-1	11.8	7.32	111	15100	54.8	1.84	9.35
BAC-2	15.7	7.12	79	11800	100	1.82	7.33
BAC-3	16.24	7.51	75	15000	34.2	1.36	9.28
BAC-4	14.36	7.93	12	2230	12.5	2.07	1.43
BAC-5	13.96	7.88	-18	2020	113	0.97	1.29
BAC-6	12.49	7.69	-157	3610	96.1	1.2	2.31
BAC-7	14.17	7.76	-96	4430	789	1.12	2.84

Waste Water	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
SI-U-1	0.594	171	667	<0.100	7.4	918	2300	<0.00200	0.00266	0.112	<0.00200	<0.000500	0.0099	<0.00400	<0.00200	0.49	<0.000150	0.00554	<0.00200	<0.00200	0.56	1.7	2.26
WW-U-1	1.05	374	2180	<0.100	7.06	1470	5430	<0.00200	0.00453	0.178	<0.00200	<0.000500	0.0032	<0.00400	<0.00200	0.983	<0.000150	0.00619	0.00549	<0.00200	1	2.3	3.3
WW-U-2	1.6	358	2430	<0.100	7.23	1370	5540	<0.00200	0.00309	0.123	<0.00200	<0.000500	0.00582	0.0072	<0.00200	0.934	<0.000150	0.0237	0.00543	<0.00200	0.84	2.1	2.94
WWC-1	9.62	561	4840	<0.100	7.19	3150	11800	<0.00200	0.0181	0.0536	<0.00200	<0.000500	0.0139	<0.00400	<0.00200	2.69	0.00031	0.00701	0.0152	<0.00200	0.31	0.83	1.14
WWC-2	< 0.500	66.5	381	0.158	7.91	147	940	<0.00200	0.0155	0.0511	<0.00200	<0.000500	0.00348	<0.00400	<0.00200	0.241	<0.000150	0.00383	<0.00200	<0.00200	0.12	1.1	1.22
WWC-3	< 0.500	34.5	284	1.01	8.11	82.2	688	<0.00200	0.0102	0.0638	<0.00200	<0.000500	0.00577	<0.00400	<0.00200	0.243	<0.000150	0.0459	<0.00200	<0.00200	0.32	0.55	0.87
WWC-4	1.09	247	1270	0.387	7.61	800	3250	<0.00200	0.0116	0.09	<0.00200	<0.000500	0.00877	<0.00400	<0.00200	0.909	<0.000150	0.00467	0.00207	<0.00200	0.5	0.45	0.95
WWC-5	2.4	345	1810	0.331	7.47	1610	5020	<0.00200	0.00783	0.103	<0.00200	<0.000500	0.00892	0.0055	<0.00200	4.41	<0.000150	0.0265	<0.00200	<0.00200	0.51	1.1	1.61

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	10.79	7.27	-14	3720	74	6.93	-
WW-U-1	13.11	7.01	2	7920	32.9	3.2	-
WW-U-2	12.59	7.23	-11	7920	93.4	5.09	-
WWC-1	14.94	7.06	15	1850	110	1.28	11.5
WWC-2	17.36	7.88	-44	1680	79.9	1.08	1.07
WWC-3	13.92	8.1	-249	1430	121	1.29	0.918
WWC-4	14.73	7.4	-20	5230	61.1	1.52	3.3
WWC-5	15.35	7.3	-122	7740	348	0.97	4.88

Round 2 Detection Monitoring - February 23-March 8, 2016

Landfill Wells	Results																							Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
CL-U-1	< 0.500	47.7	391	0.839	8.52	123	908	<0.00200	0.0415	0.0953	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.401	<0.000150	0.00733	<0.00200	<0.00200	0.27	1.6	1.87			
CL-U-2	< 0.500	59.9	372	0.873	7.75	119	940	<0.00200	0.0243	0.0934	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.387	<0.000150	0.00414	<0.00200	<0.00200	0.28	1	1.28			
CLW-1	< 0.500	35.1	301	0.834	7.89	71.6	808	<0.00200	0.0266	0.0648	<0.00200	<0.000500	0.00235	<0.00400	<0.00200	0.361	<0.000150	0.00506	<0.00200	<0.00200	0.36	1.5	1.86			
CLW-2	< 0.500	45.9	378	1.18	7.66	90.5	936	<0.00200	0.0243	0.0882	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.438	<0.000150	0.00481	<0.00200	<0.00200	0.51	0.53	1.04			
CLW-3	< 0.500	40.5	336	1.35	7.92	96	884	<0.00200	0.0437	0.103	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.435	<0.000150	0.00409	<0.00200	<0.00200	0.47	1.1	1.57			
CLW-4	< 0.500	32.1	282	1.53	7.87	80.9	776	<0.00200	0.0271	0.109	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.375	<0.000150	0.00762	<0.00200	<0.00200	0.37	0.7	1.07			
CLW-5	< 0.500	35.4	318	1.82	7.91	85.7	824	<0.00200	0.0214	0.0869	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.411	<0.000150	0.00922	<0.00200	<0.00200	0.27	0.32	0.59			
CLW-6	< 0.500	32.1	306	1.72	7.97	75.4	816	<0.00200	0.0246	0.095	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.4	<0.000150	0.0117	<0.00200	<0.00200	0.02	0.96	0.98			
CLW-7	< 0.500	42.8	290	0.825	7.65	67.6	832	<0.00200	0.0239	0.0794	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.327	<0.000150	0.146	<0.00200	<0.00200	0.14	0.29	0.43			
CLW-8	< 0.500	41.5	293	0.782	7.8	70.3	808	<0.00200	0.022	0.0839	<0.00200	<0.000500	0.00224	<0.00400	<0.00200	0.35	<0.000150	0.00499	<0.00200	<0.00200	0.32	0.32	0.64			

Round 2

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	14.18	8.74	-209	1750	4.3	2.15	1.12
CL-U-2	14.41	7.75	-89	1820	4.6	1.85	1.17
CLW-1	15.84	7.95	-60	1560	3.8	1.4	0.996
CLW-2	17.53	7.81	-137	1840	2	9.35	1.17
CLW-3	14.99	7.87	-203	1710	0	3.96	1.09
CLW-4	17.08	7.81	-211	1490	11.5	1.82	0.955
CLW-5	17.06	7.82	-168	1650	10.9	8.45	1.06
CLW-6	15.83	7.91	-194	1600	6.2	0.95	1.02
CLW-7	16.53	7.75	9	1560	3.5	2.67	0.996
CLW-8	15.86	7.81	-25	1560	8	1.92	0.996

Results

Bottom Ash	Results																				Radiation		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
BA-U-1	< 0.500	28.7	258	1.67	8.55	64.2	852	<0.00200	0.023	0.0969	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.376	<0.000150	0.0359	<0.00200	<0.00200	0.33	1.3	1.63
BA-U-2	< 0.500	67.4	529	0.938	8.02	55.7	1230	<0.00200	0.0199	0.175	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.514	<0.000150	0.00298	<0.00200	<0.00200	0.2	1	1.2
BAC-1	2.85	155	1730	<0.100	7.86	1390	5240	<0.00200	0.0174	0.39	<0.00200	<0.000500	0.00536	<0.00400	<0.00200	0.63	<0.000150	0.0607	0.0131	<0.00200	0.96	1.6	2.56
BAC-2	9.83	196	1600	<0.100	7.35	2900	7640	<0.00200	0.0411	0.0385	<0.00200	<0.000500	0.00742	<0.00400	0.00221	1.22	<0.000150	0.167	0.0128	<0.00200	0.4	2.5	2.9
BAC-3	6.55	406	3240	<0.100	7.62	3960	10400	<0.00200	0.0192	0.0553	<0.00200	<0.000500	0.00676	<0.00400	<0.00200	1.12	<0.000150	0.0337	0.0184	<0.00200	0.44	0.68	1.12
BAC-4	< 0.500	57.4	488	1.36	7.87	191	1290	<0.00200	0.0371	0.0806	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.532	<0.000150	0.0106	<0.00200	<0.00200	0.48	0.5	0.98
BAC-5	< 0.500	41.3	433	1.34	7.95	111	1010	<0.00200	0.0392	0.0736	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.476	<0.000150	0.00758	<0.00200	<0.00200	0.25	-0.03	0.22
BAC-6	2.67	98.4	491	0.734	7.72	636	1880	<0.00200	0.0144	0.0736	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.597	<0.000150	0.0569	<0.00200	<0.00200	0.61	0.6	1.21
BAC-7	4.43	132	623	1.07	7.89	1230	2980	<0.00200	0.0225	0.0372	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.699	<0.000150	0.0681	0.00274	<0.00200	0.16	0.51	0.67

Field Results

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	13.53	8.63	5	1550	11.3	2.59	0.995
BA-U-2	15.78	7.94	-167	2240	19.7	1.06	1.44
BAC-1	17.51	8.16	39	6.5	10.7	3	4.11
BAC-2	16.74	7.2	322	9.96	3.2	2.59	6.26
BAC-3	14.4	7.36	29	1590	3.8	3.35	9.84
BAC-4	15.9	7.81	-55	2370	3.9	2.08	1.51
BAC-5	16.34	7.92	-23	1980	4	2.89	1.27
BAC-6	18.19	7.67	-8	2.94	0	1.73	1.88
BAC-7	14.22	7.9	-9	4560	3.9	2.46	2.92

Results

Waste Water	Results																							Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
SI-U-1	< 0.500	168	752	0.557	7.65	665	2320	<0.00200	0.00781	0.0846	<0.00200	<0.000500	0.00346	<0.00400	<0.00200	0.634	<0.000150	0.00671	<0.00200	<0.00200	0.43	0.16	0.27			
WW-U-1	1.03	346	2430	<0.100	7.23	1440	5330	<0.00200	0.00446	0.123	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.33	<0.000150	0.00669	0.00432	<0.00200	1	2.2	3.2			
WW-U-2	1.59	362	2410	<0.100	7.34	1370	5780	<0.00200	0.00846	0.0761	<0.00200	<0.000500	0.00735	<0.00400	<0.00200	1.35	<0.000150	0.0126	0.0108	<0.00200	0.51	1.2	1.71			
WWC-1	6.01	458	4530	0.256	7.24	2710	10800	<0.00200	0.00331	0.072	<0.00200	<0.000500	0.00369	0.00842	<0.00200	1.08	<0.000150	0.0103	0.00919	<0.00200	0.91	1.6	2.51			
WWC-2	< 0.500	61.3	352	0.208	7.97	131	932	<0.00200	0.0147	0.0421	<0.00200	<0.000500	0.00335	<0.00400	<0.00200	0.162	<0.000150	0.00391	<0.00200	<0.00200	0.18	1	1.18			
WWC-3	< 0.500	29.2	203	0.845	8.2	78.5	660	<0.00200	0.021	0.0357	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.172	<0.000150	0.00593	<0.00200	<0.00200	0.16	0.52	0.68			
WWC-4	0.826	185	1100	0.39	7.31	716	3100	<0.00200	0.00923	0.101	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.75	<0.000150	0.00783	<0.00200	<0.00200	0.6	0.84	1.44			
WWC-5	1.59	320	1640	0.319	7.22	1210	4790	<0.00200	0.00371	0.0882	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.41	<0.000150	0.0205	0.00345	<0.00200	0.52	1.9	2.42			

Field Results

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	12.99	7.49	11	3790	7.4	1.37	2.42
WW-U-1	15.75	7.21	-117	8030	19.6	4.07	5.06
WW-U-2	14.5	7.34	-22	9240	12.9	2.4	5.82
WWC-1	15.29	7.11	-108	1400	11.8	7.82	8.62
WWC-2	14.19	7.75	-86	1720	9.1	2.37	1.1
WWC-3	15.63	8.1	-183	1190	2	1.36	0.759
WWC-4	15.58	7.37	-8	5004	4.7	1.61	3.18
WWC-5	15	7.22	19	7510	6.4	2	4.75

Date: 2/29/2016

Round 3 Detection Monitoring - June 6-15, 2016																										
Landfill Wells	Results																									
																									Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
CL-U-1	< 0.500	51.2	414	1.01	7.83	122	1080	<0.00200	0.0507	0.0887	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.378	<0.000150	0.00491	<0.00200	<0.00200	0.11	0.72	0.83			
CL-U-2	< 0.500	53.7	390	1.14	7.75	121	976	<0.00200	0.0245	0.0933	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.346	<0.000150	0.00391	<0.00200	<0.00200	0.26	1.5	1.76			
CLW-1	< 0.500	34.6	312	1.13	7.9	70.1	716	<0.00200	0.0285	0.0621	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.318	<0.000150	0.00438	<0.00200	<0.00200	0.28	0.89	1.17			
CLW-2	< 0.500	43.9	402	1.21	7.84	87.9	976	<0.00200	0.0264	0.0819	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.396	<0.000150	0.00427	<0.00200	<0.00200	0.25	1.1	1.35			
CLW-3	< 0.500	36.2	346	1.3	7.86	104	876	<0.00200	0.0402	0.0992	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.375	<0.000150	0.00463	<0.00200	<0.00200	0.35	1.2	1.55			
CLW-4	< 0.500	30.6	294	1.58	7.79	77.9	748	<0.00200	0.0196	0.119	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.338	<0.000150	0.0092	<0.00200	<0.00200	0.45	0.72	1.17			
CLW-5	< 0.500	33	336	1.81	7.86	84.9	848	<0.00200	0.0182	0.0851	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.352	<0.000150	0.00868	<0.00200	<0.00200	0.27	0.65	0.92			
CLW-6	< 0.500	29.8	313	1.73	7.9	73.2	756	<0.00200	0.0181	0.0901	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.333	<0.000150	0.0105	<0.00200	<0.00200	0.34	1.4	1.74			
CLW-7	< 0.500	39.3	328	1.16	7.64	67.4	732	<0.00200	0.0246	0.0581	<0.00200	<0.000500	0.00891	<0.00400	<0.00200	0.331	<0.000150	0.00638	<0.00200	<0.00200	0.19	0.55	0.74			
CLW-8	< 0.500	40.3	312	1.08	7.82	69.7	808	<0.00200	0.0225	0.0797	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.32	<0.000150	0.00435	<0.00200	<0.00200	0.27	0.32	0.59			
Bottom Ash	Results																									
																									Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
BA-U-1	< 0.500	195	1130	0.801	7.63	339	2520	<0.00200	0.0177	0.0935	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.773	<0.000150	0.00317	0.00426	<0.00200	0.3	1.6	1.9			
BA-U-2	< 0.500	15.9	284	0.865	12	40.6	720	<0.00200	<0.00200	0.128	<0.00200	<0.000500	0.0032	<0.00400	<0.00200	0.315	<0.000150	0.016	<0.00200	<0.00200	0.22	1.5	1.72			
BAC-1	4.73	191	2240	0.402	7.59	1840	6420	<0.00200	0.0164	0.081	<0.00200	<0.000500	0.0033	<0.00400	<0.00200	1.3	<0.000150	0.0669	0.0168	<0.00200	0.51	1.3	1.81			
BAC-2	11.2	216	1650	0.986	7.17	3220	7520	<0.00200	0.0416	0.0248	<0.00200	<0.000500	0.00488	<0.00400	<0.00200	1.32	<0.000150	0.14	0.0142	<0.00200	0.17	1.6	1.77			
BAC-3	6.82	445	3230	0.794	7.42	4490	10900	<0.00200	0.0158	0.048	<0.00200	<0.000500	0.00707	<0.00400	<0.00200	2.53	<0.000150	0.0269	0.0198	<0.00200	0.25	1.6	1.85			
BAC-4	< 0.500	66.1	551	1.38	7.73	223	1280	<0.00200	0.0334	0.0772	<0.00200	<0.000500	0.00461	<0.00400	<0.00200	0.509	<0.000150	0.0122	<0.00200	<0.00200	0.16	0.68	0.84			
BAC-5	< 0.500	50.4	541	1.26	7.79	122	1220	<0.00200	0.0337	0.0839	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.494	<0.000150	0.00738	<0.00200	<0.00200	0.11	1.7	1.81			
BAC-6	1.7	89.5	521	1.04	7.72	448	1560	<0.00200	0.0122	0.0859	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.542	<0.000150	0.0359	<0.00200	<0.00200	0.27	0.76	1.03			
BAC-7	4.51	132	685	1.31	7.69	1370	2870	<0.00200	0.0234	0.0315	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.674	<0.000150	0.0749	0.00319	<0.00200	0.17	2.4	2.57			
Waste Water	Results																									
																									Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
SI-U-1	< 0.500	129	901	0.564	7.6	318	1880	<0.00200	0.00989	0.0929	<0.00200	<0.000500	0.0156	<0.00400	<0.00200	0.499	<0.000150	0.00411	<0.00200	<0.00200	0.45	0.64	1.09			
WW-U-1	1.18	296	2030	0.386	7.21	1300	5820	<0.00200	0.0052	0.115	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1	<0.000150	0.00888	0.00637	<0.00200	0.64	0.92	1.56			
WW-U-2	1.49	412	2300	0.534	7.33	1180	5400	<0.00200	0.00538	0.0746	<0.00200	<0.000500	0.0114	<0.00400	<0.00200	1.08	<0.000150	0.0126	0.0107	<0.00200	0.64	1.1	1.74			
WWC-1	3.59	526	3950	<0.100	7.12	1990	8820	<0.00200	0.00401	0.077	<0.00200	<0.000500	<0.00200	0.00532	<0.00200	2.18	<0.000150	0.00653	0.00824	<0.00200	0.47	2	2.47			
WWC-2	< 0.500	59.1	369	0.833	7.79	145	956	<0.00200	0.0151	0.0408	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.225	<0.000150	0.00402	<0.00200	<0.00200	0.22	0.39	0.61			
WWC-3	< 0.500	26.4	197	1.02	8.12	85.6	664	<0.00200	0.0213	0.0328	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.23	<0.000150	0.00574	<0.00200	<0.00200	0.13	3.3	3.43			
WWC-4	0.627	138	902	0.576	7.57	406	2010	<0.00200	0.00498	0.0768	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.606	<0.000150	0.0082	<0.00200	<0.00200	0.27	1.7	1.97			
WWC-5	1.65	406	1730	0.3	7.24	1140	5060	<0.00200	0.00608	0.067	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.4	<0.000150	0.0119	0.00363	<0.00200	0.42	0.85	1.27			
Date: 6/13/2016																										
Round 3																										
Landfill Wells	Field Results																									
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS																			
CL-U-1	18.94	8.04	-204	1910	22.6	1.2	1.22																			
CL-U-2	18.47	7.7	-136	1900	1	2.72	1.22																			
CLW-1	23.71	7.77	62	1550	0	1.34	0.99																			
CLW-2	22.15	7.66	-169	1840	0	1.31	1.17																			
CLW-3	20.8	7.71	-225	1720	0.8	1.8	1.1																			
CLW-4	19.51	7.8	-235	1480	0	4.39	0.95																			
CLW-5	21.24	7.77	-209	1570	11.5	4.22	1.01																			
CLW-6	18.81	7.87	-235	1600	0	1.7	1.02																			
CLW-7	16.73	7.62	66	1580	8.9	3.82	1.01																			
CLW-8	20.93	7.66	55	1510	0	12.58	0.966																			

Round 4 Detection Monitoring - August 22-September 1, 2016																								
Landfill Wells	Results																						Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
CL-U-1	< 0.500	54.8	424	1.03	7.63	124	1030	<0.00200	0.0301	0.0911	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.375	<0.000150	0.00428	<0.00200	<0.00200	0.36	0.44	0.8	
CL-U-2	< 0.500	57.7	406	1.17	7.69	113	948	<0.00200	0.0265	0.0961	<0.00200	<0.000500	0.00227	<0.00400	<0.00200	0.351	<0.000150	0.00508	<0.00200	<0.00200	0.31	1.1	1.41	
CLW-1	< 0.500	35	315	1.18	7.89	65.4	832	<0.00200	0.0279	0.0594	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.316	<0.000150	0.00454	<0.00200	<0.00200	0.52	0.86	1.38	
CLW-2	< 0.500	46.8	424	1.29	7.75	89.2	992	<0.00200	0.0284	0.0823	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.391	<0.000150	0.00462	<0.00200	<0.00200	0.31	0.62	0.93	
CLW-3	< 0.500	38.7	349	1.33	7.75	109	896	<0.00200	0.0412	0.0995	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.368	<0.000150	0.00472	<0.00200	<0.00200	0.3	0.15	0.45	
CLW-4	< 0.500	32.1	318	1.53	7.81	84.5	808	<0.00200	0.0316	0.104	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.336	<0.000150	0.00577	<0.00200	<0.00200	0.39	0.62	1.01	
CLW-5	< 0.500	34.3	350	1.83	7.75	92.1	860	<0.00200	0.0189	0.0803	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.346	<0.000150	0.00798	<0.00200	<0.00200	0.24	0.27	0.51	
CLW-6	< 0.500	31.5	331	1.73	7.84	77.1	812	<0.00200	0.0164	0.0966	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.342	<0.000150	0.011	<0.00200	<0.00200	0.2	1	1.2	
CLW-7	< 0.500	42.1	336	1.1	7.71	70	760	<0.00200	0.024	0.0529	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.302	<0.000150	0.00396	<0.00200	<0.00200	0.17	0.33	0.5	
CLW-8	< 0.500	40.1	327	1.08	7.73	75	720	<0.00200	0.0224	0.0761	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.308	<0.000150	0.00459	<0.00200	<0.00200	0.35	1	1.35	

Bottom Ash	Results																						Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
BA-U-1	< 0.500	180	1170	0.888	7.62	327	2390	<0.00200	0.0191	0.0802	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.684	<0.000150	0.00386	0.00384	<0.00200	0.45	0.84	1.29	
BA-U-2	< 0.500	10.4	317	0.975	11.8	39.9	748	<0.00200	0.00225	0.114	<0.00200	<0.000500	0.00216	<0.00400	<0.00200	0.337	<0.000150	0.0147	<0.00200	<0.00200	0.26	1.1	1.36	
BAC-1	4.95	221	2520	0.401	7.52	2380	7210	<0.00200	0.0146	0.0643	<0.00200	<0.000500	0.0028	<0.00400	<0.00200	1.42	<0.000150	0.0603	0.0148	<0.00200	0.63	0.64	1.27	
BAC-2	10.5	203	1640	1.03	7.22	3180	7620	<0.00200	0.0431	0.0237	<0.00200	<0.000500	0.0081	<0.00400	<0.00200	1.17	<0.000150	0.166	0.0136	<0.00200	0.33	0.23	0.56	
BAC-3	6.77	399	3350	1.28	7.36	4630	11700	<0.00200	0.0213	0.0436	<0.00200	<0.000500	0.00386	<0.00400	<0.00200	2.37	<0.000150	0.0294	0.019	<0.00200	0.38	0.76	1.14	
BAC-4	< 0.500	56.1	498	1.35	7.62	210	1460	<0.00200	0.0358	0.0757	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.508	<0.000150	0.0103	<0.00200	<0.00200	0.19	0.83	1.02	
BAC-5	< 0.500	49.4	561	1.25	7.68	127	1200	<0.00200	0.0331	0.0879	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.538	<0.000150	0.0077	<0.00200	<0.00200	0.1	0.46	0.56	
BAC-6	1.38	80.2	546	0.901	7.61	502	1540	<0.00200	0.0115	0.0781	<0.00200	0.000677	0.00283	<0.00400	<0.00200	0.54	<0.000150	0.034	<0.00200	<0.00200	0.31	0.24	0.55	
BAC-7	3.96	126	612	1.28	7.68	1370	2770	<0.00200	0.0232	0.0274	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.669	<0.000150	0.0942	0.00257	<0.00200	0.37	-0.17	0.2	

Waste Water	Results																						Radium 226 and 228 combined	
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
SI-U-1	< 0.500	131	922	0.564	7.57	281	1880	<0.00200	0.00926	0.0858	<0.00200	<0.000500	0.00217	<0.00400	<0.00200	0.467	<0.000150	0.00295	<0.00200	<0.00200	0.45	0.96	1.41	
WW-U-1	1.25	304	2200	0.327	7.21	1280	5270	<0.00200	0.00439	0.0916	<0.00200	<0.000500	0.00337	<0.00400	<0.00200	1.01	<0.000150	0.00835	0.00689	<0.00200	0.54	2	2.54	
WW-U-2	0.641	308	2140	0.614	7.42	854	4550	<0.00200	0.00258	0.117	<0.00200	<0.000500	0.00424	<0.00400	<0.00200	0.994	<0.000150	0.0342	0.00617	<0.00200	0.82	1.6	2.42	
WWC-1	10.2	457	4680	0.213	7.11	3130	12100	<0.00200	0.02	0.0335	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	2.41	0.00019	0.00966	0.0145	<0.00200	0.33	0.86	1.19	
WWC-2	< 0.500	57.9	389	0.508	7.86	151	960	<0.00200	0.0152	0.0406	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.243	<0.000150	0.0034	<0.00200	<0.00200	0.69	1.2	1.89	
WWC-3	< 0.500	27.3	220	1.03	8.02	78	628	<0.00200	0.0217	0.0342	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.241	<0.000150	0.00559	<0.00200	<0.00200	0.2	-0.34	-0.14	
WWC-4	1.17	225	1330	0.422	7.37	868	3230	<0.00200	0.0131	0.065	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.879	<0.000150	0.00237	0.00238	<0.00200	0.27	0.48	0.75	
WWC-5	2.87	326	1920	0.366	7.18	1700	5440	<0.00200	0.00717	0.0439	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.33	<0.000150	0.00742	0.00312	<0.00200	0.41	0.51	0.92	

Waste Water	Field Results														
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS								
SI-U-1	21.31	7.57	-21	3.25	1.6	14.7	2.08								
WW-U-1	20.96	7.12	34	8.06	10.9	3.52	5.08								
WW-U-2	19.51	7.41	-63	7.34	4.7	8.24	4.62								
WWC-1	20.69	6.94	-34	18400	0	0.54	11.4								
WWC-2	17.91	7.64	-153	1720	2.6	3.57	1.1								
WWC-3	17.39	7.97	-176	1200	0	0.54	0.766								
WWC-4	17.14	7.22	-68	5320	0	2.25	3.35								
WWC-5	17.85	7.01	-89	7790	0.9	0.59	4.91								

Date: 8/26/2016

Round 5 Detection Monitoring - October 17-26, 2016

Landfill Wells	Results																							
	Radium 226 and 228 combined																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
CL-U-1	< 0.500	57.4	424	0.959	7.7	115	912	<0.00200	0.037	0.089	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.217	<0.000150	0.00404	<0.00200	<0.00200	0.25	0.18	0.43	
CL-U-2	< 0.500	59.5	395	0.99	7.73	113	864	<0.00200	0.0269	0.101	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.206	<0.000150	0.00401	<0.00200	<0.00200	0.36	0.84	1.2	
CLW-1	< 0.500	38.9	325	1.15	7.8	67.8	824	<0.00200	0.0295	0.0668	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.189	<0.000150	0.0043	<0.00200	<0.00200	0.27	0.19	0.46	
CLW-2	< 0.500	49.2	422	1.13	7.82	85.3	984	<0.00200	0.0258	0.0855	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.223	<0.000150	0.00456	<0.00200	<0.00200	0.31	0.34	0.65	
CLW-3	< 0.500	40.8	366	1.19	7.83	100	944	<0.00200	0.0412	0.104	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00508	<0.00200	<0.00200	0.35	0.13	0.48	
CLW-4	< 0.500	34.6	335	1.39	7.84	85.9	828	<0.00200	0.0385	0.0932	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.203	<0.000150	0.00414	<0.00200	<0.00200	0.59	-0.37	0.22	
CLW-5	< 0.500	35.3	339	1.69	7.89	82.1	928	<0.00200	0.0206	0.0812	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.204	<0.000150	0.00723	<0.00200	<0.00200	0.31	0.84	1.15	
CLW-6	< 0.500	33.9	325	1.46	7.85	77.9	972	<0.00200	0.0287	0.0908	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.203	<0.000150	0.00638	<0.00200	<0.00200	0.35	0.18	0.53	
CLW-7	< 0.500	42.8	343	1.14	7.9	68.6	796	<0.00200	0.0235	0.0551	<0.00200	<0.000500	0.00234	<0.00400	<0.00200	0.182	<0.000150	0.00413	<0.00200	<0.00200	0.27	0.32	0.59	
CLW-8	< 0.500	41.7	334	1.11	7.77	68.9	744	<0.00200	0.0258	0.0797	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.189	<0.000150	0.00428	<0.00200	<0.00200	0.37	-0.28	0.09	

Bottom Ash	Results																							
	Radium 226 and 228 combined																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
BA-U-1	< 0.500	16.7	327	1.65	9.08	60.2	832	<0.00200	0.0362	0.0679	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.215	<0.000150	0.0163	<0.00200	<0.00200	0.67	0.13	0.8	
BA-U-2	< 0.500	38.1	357	1.02	8.56	51.9	824	<0.00200	0.0234	0.131	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.21	<0.000150	0.00449	<0.00200	<0.00200	0.57	0.42	0.99	
BAC-1	3.42	131	1850	0.437	8.8	1610	7720	<0.00200	0.0103	0.049	<0.00200	<0.000500	0.00612	<0.00400	<0.00200	0.402	<0.000150	0.0498	0.00852	<0.00200	0.34	0.27	0.61	
BAC-2	9.71	216	1620	1.11	7.34	2980	7040	<0.00200	0.0444	0.0228	<0.00200	<0.000500	0.00644	<0.00400	<0.00200	0.414	<0.000150	0.165	0.0131	<0.00200	0.25	-0.03	0.22	
BAC-3	7.04	401	3160	0.76	7.39	4260	11400	<0.00200	0.0226	0.0404	<0.00200	<0.000500	0.00362	<0.00400	<0.00200	0.812	<0.000150	0.0275	0.0195	<0.00200	0.24	0.14	0.38	
BAC-4	< 0.500	59.2	534	1.34	7.8	222	1230	<0.00200	0.0352	0.0723	<0.00200	<0.000500	0.00212	<0.00400	<0.00200	0.243	<0.000150	0.00992	<0.00200	<0.00200	0.09	0.4	0.49	
BAC-5	< 0.500	40.5	479	1.33	7.85	110	1070	<0.00200	0.0359	0.0909	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.219	<0.000150	0.00715	<0.00200	<0.00200	0.2	-0.01	0.19	
BAC-6	4.35	133	606	0.97	7.61	1080	2620	<0.00200	0.022	0.0287	<0.00200	<0.000500	0.00257	<0.00400	<0.00200	0.266	<0.000150	0.0858	0.00369	<0.00200	0.13	0.69	0.82	
BAC-7	3.97	135	628	1.42	7.69	1340	2880	<0.00200	0.0241	0.026	<0.00200	<0.000500	0.00217	<0.00400	<0.00200	0.279	<0.000150	0.0944	0.00279	<0.00200	0.26	1.1	1.36	

Waste Water	Results																							
	Radium 226 and 228 combined																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
SI-U-1	< 0.500	132	863	0.514	7.52	286	1850	<0.00200	0.00895	0.0871	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.254	<0.000150	0.00276	<0.00200	<0.00200	0.32	0.11	0.43	
WW-U-1	1.23	348	2190	0.346	7.18	1230	5370	<0.00200	0.0041	0.0771	<0.00200	<0.000500	0.00538	<0.00400	<0.00200	0.479	<0.000150	0.00891	0.00579	<0.00200	0.73	0.17	0.9	
WW-U-2	1.47	383	2340	0.416	7.22	1120	5540	<0.00200	0.00573	0.0704	<0.00200	<0.000500	0.00396	<0.00400	<0.00200	0.512	<0.000150	0.0111	0.0116	<0.00200	0.78	0.46	1.24	
WWC-1	9.83	513	4540	0.133	7.04	2960	12500	<0.00200	0.0197	0.0317	<0.00200	<0.000500	0.00348	<0.00400	<0.00200	0.819	0.000198	0.00936	0.0153	<0.00200	0.23	0.73	0.96	
WWC-2	< 0.500	58.5	369	0.42	7.88	140	960	<0.00200	0.0129	0.0543	<0.00200	<0.000500	0.0243	<0.00400	<0.00200	0.112	<0.000150	0.00809	<0.00200	<0.00200	0.1	0.45	0.55	
WWC-3	< 0.500	27.7	224	1.08	8.01	86.1	612	<0.00200	0.0218	0.0332	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.123	<0.000150	0.00543	<0.00200	<0.00200	0.07	0.1	0.17	
WWC-4	1.19	227	1200	0.509	7.32	763	3200	<0.00200	0.0136	0.0629	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.351	<0.000150	0.00222	0.00216	<0.00200	0.08	0.75	0.83	
WWC-5	3.02	343	1850	0.401	0.71	1570	5300	<0.00200	0.00778	0.0389	<0.00200	<0.000500	0.00238	<0.00400	<0.00200	0.497	<0.000150	0.00498	0.0041	<0.00200	0.43	1.1	1.53	

Date: 10/17/2016

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	16.15	7.72	-195	1900	0.7	2.79	1.22
CL-U-2	16.89	7.67	-102	1820	0.4	0.82	1.17
CLW-1	16.85	7.77	-50	1520	2	1.57	0.974
CLW-2	17.05	7.76	-202	1900	0.4	3.82	1.21
CLW-3	15.28	7.75	-231	1720	1.8	1.29	1.1
CLW-4	14.67	7.78	-235	1620	7	1.4	1.04
CLW-5	17.4	7.71	-209	1690	8.1	1.41	1.08
CLW-6	15.85	7.83	-249	1620	1.1	1.72	1.04
CLW-7	17.42	7.7	-73	564	0	13.65	0.361
CLW-8	17.18	7.7	-100	1530	2.2	1.03	0.978

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	16.41	9.07	6	1660	3.2	1.88	1.06
BA-U-2	16.67	8.77	-318	1600	1.7	1.76	1.03
BAC-1	18.66	7.57	-144	8800	7.7	0.55	6.19
BAC-2	19.51	7.01	-2	10200	0.6	0.46	6.34
BAC-3	18.63	7.15	2	16700	20	4.99	10.4
BAC-4	16.35	7.72	-120	0.859	3	4.2	0.55
BAC-5	16.43	7.85	-64	726	1.4	12.41	0.464
BAC-6	16.07	7.62	-86	1370	11.4	1.77	0.879
BAC-7	16.64	7.59	-67	1560	4.6	12.42	0.998

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	16.62	7.47	-22	3370	1	9	2.16
WW-U-1	17.72	6.99	7	8330	3	1.89	5.25
WW-U-2	17.84	7.19	-10	8400	2.6	1.89	5.29
WWC-1	15.78	6.93	-22	18600	0	0.51	11.6
WWC-2	15.91	7.75	-210	1680	6	1.08	1.07
WWC-3	16.26	7.94	-166	1210	0	0.24	0.772
WWC-4	16.51	7.22	-41	5140	0.2	1.09	3.24
WWC-5	15.83	7.02	-87	7930	0.2	0.37	4.99

Round 6 Detection Monitoring - March 20-30, 2017																								
Landfill Wells	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
CL-U-1	< 0.500	57.1	403	0.876	7.83	113	908	<0.00200	0.0322	0.0867	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00365	<0.00200	<0.00200	0.62	0.22	0.62	
CL-U-2	< 0.500	61.2	374	0.903	7.89	110	852	<0.00200	0.0272	0.0976	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.208	<0.000150	0.00386	<0.00200	<0.00200	0.4	0.39	0.4	
CLW-1	< 0.500	38.4	295	1.05	7.83	62.4	768	<0.00200	0.0309	0.0631	<0.00200	<0.000500	0.0187	<0.00400	<0.00200	0.185	<0.000150	0.00654	<0.00200	<0.00200	0.41	0.78	1.2	
CLW-2	< 0.500	49.7	377	1.07	7.85	92.9	936	<0.00200	0.0277	0.0811	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.219	<0.000150	0.00437	<0.00200	<0.00200	0.31	0.72	1	
CLW-3	< 0.500	42.4	333	1.23	7.87	94.4	876	<0.00200	0.0423	0.103	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00473	<0.00200	<0.00200	0.35	0.7	1.1	
CLW-4	< 0.500	35.2	306	1.27	8.02	79.1	808	<0.00200	0.0388	0.0898	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.202	<0.000150	0.00439	<0.00200	<0.00200	0.39	0.12	0.39	
CLW-5	< 0.500	36	320	1.71	7.88	79.9	748	<0.00200	0.0216	0.0801	<0.00200	<0.000500	0.00214	<0.00400	<0.00200	0.025	<0.000150	0.00666	<0.00200	<0.00200	0.4	0.38	0.4	
CLW-6	< 0.500	33.4	302	1.48	7.91	66	752	<0.00200	0.0164	0.0976	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.193	<0.000150	0.00805	<0.00200	<0.00200	0.25	-0.35	0.25	
CLW-7	< 0.500	46.4	312	1.02	7.68	61	824	<0.00200	0.0257	0.0545	<0.00200	<0.000500	0.00772	<0.00400	<0.00200	0.182	<0.000150	0.00425	<0.00200	<0.00200	0.14	0.18	0.14	
CLW-8	< 0.500	42.8	301	1.03	7.71	63.8	772	<0.00200	0.0255	0.0707	<0.00200	<0.000500	0.012	<0.00400	<0.00200	0.189	<0.000150	0.00526	<0.00200	<0.00200	0.25	0.29	0.25	

Bottom Ash	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
BA-U-1	< 0.500	24.5	259	1.57	8.59	48.8	648	<0.00200	0.0359	0.0856	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.193	<0.000150	0.0124	<0.00200	<0.00200	0.28	0.15	0.28	
BA-U-2	< 0.500	3.76	328	0.886	12.1	39.2	728	<0.00200	0.00254	0.122	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.221	<0.000150	0.00986	<0.00200	<0.00200	0.3	0.47	0.3	
BAC-1	4.01	188	2170	<0.100	7.47	1650	6320	<0.00200	0.0202	0.279	<0.00200	<0.000500	0.0412	<0.00400	<0.00200	0.429	<0.000150	0.0391	0.0152	<0.00200	1.1	1.5	2.6	
BAC-2	10.5	193	1480	0.871	7.2	2780	7320	<0.00200	0.0469	0.022	<0.00200	<0.000500	0.0145	<0.00400	<0.00200	0.44	<0.000150	0.194	0.0144	<0.00200	0.34	0.22	0.56	
BAC-3	7.57	408	3140	<0.100	7.36	4290	13000	<0.00200	0.0239	0.0376	<0.00200	<0.000500	0.00447	<0.00400	<0.00200	0.974	<0.000150	0.026	0.0211	<0.00200	0.2	0.5	0.7	
BAC-4	< 0.500	59	461	1.13	7.68	206	1260	<0.00200	0.0362	0.0705	<0.00200	<0.000500	0.011	<0.00400	<0.00200	0.237	<0.000150	0.012	<0.00200	<0.00200	0.13	0.18	0.13	
BAC-5	< 0.500	59.5	576	0.994	7.73	190	1430	<0.00200	0.032	0.0893	<0.00200	<0.000500	0.00204	<0.00400	<0.00200	0.277	<0.000150	0.00666	<0.00200	<0.00200	0.21	0.24	0.45	
BAC-6	4.44	128	594	0.763	7.6	1040	2500	<0.00200	0.0237	0.0269	<0.00200	<0.000500	0.00205	<0.00400	<0.00200	0.28	<0.000150	0.0873	0.0045	<0.00200	0.12	-0.21	-0.09	
BAC-7	3.31	151	591	0.936	7.43	1140	3120	<0.00200	0.0237	0.0253	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.327	<0.000150	0.0702	0.007	<0.00200	0.21	0.7	0.91	

Waste Water	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
SI-U-1	< 0.500	131	785	0.458	7.54	247	1760	<0.00200	0.00941	0.08	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.25	<0.000150	0.00227	<0.00200	<0.00200	0.33	0.24	0.33	
WW-U-1	1.15	336	1880	0.2	7.26	1180	4890	<0.00200	0.00593	0.0568	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.477	<0.000150	0.00558	0.00583	<0.00200	0.53	0.89	1.42	
WW-U-2	0.6	317	1860	0.438	7.38	734	4300	<0.00200	0.00355	0.095	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.479	<0.000150	0.021	0.00749	<0.00200	0.51	1.6	2.11	
WWC-1	11.2	479	4510	<0.100	6.98	2940	12200	<0.00200	0.0213	0.0288	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.932	0.000328	0.00995	0.0149	<0.00200	0.26	1.1	1.36	
WWC-2	< 0.500	52	318	0.405	7.79	125	856	<0.00200	0.0149	0.0361	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.122	<0.000150	0.00357	<0.00200	<0.00200	0.17	0.61	0.78	
WWC-3	< 0.500	25.7	195	0.852	8.13	76	680	<0.00200	0.0227	0.0302	<0.00200	<0.000500	0.00309	<0.00400	<0.00200	0.137	<0.000150	0.00537	<0.00200	<0.00200	0.24	-0.21	0.03	
WWC-4	1.3	233	1250	0.319	7.38	819	3230	<0.00200	0.0135	0.061	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.382	<0.000150	<0.00200	0.00239	<0.00200	0.18	-0.2	-0.02	
WWC-5	1.72	318	1520	0.292	7.13	1190	4560	<0.00200	0.01	0.0501	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.555	<0.000150	0.00523	0.00399	<0.00200	0.23	0.95	1.18	

Date: 3/23/2017

Round 6							
Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	17.27	7.52	-194	957	4.2	2.53	0.613
CL-U-2	15.81	7.48	-139	929	0	10.45	0.598
CLW-1	14.45	7.6	-173	1540	0	5.98	0.984
CLW-2	16.63	7.58	-221	950	0	9.29	0.609
CLW-3	16.58	7.66	-235	840	0	10.64	0.539
CLW-4	16.67	7.68	-253	785	0	2.14	0.502
CLW-5	16.63	7.6	-222	834	0	2.29	0.534
CLW-6	15.51	7.65	-245	790	0	8.85	0.505
CLW-7	15.48	7.52	-150	1600	0	1.94	1.02
CLW-8	15.08	7.57	-159	1550	0	1.55	0.991

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	16.08	8.22	55	783	1.8	6.02	0.501
BA-U-2	17.77	11.71	-250	2120	1.9	7.87	1.36
BAC-1	16.44	7.24	-131	9640	11.2	2.14	6.07
BAC-2	15.89	6.86	-53	10400	0.1	0.6	6.44
BAC-3	15.61	7.1	-44	18000	3.4	0.5	11.2
BAC-4	14.42	7.58	-165	2400	0	2.76	1.53
BAC-5	15.18	7.53	-155	2550	0.1	0.57	1.63
BAC-6	16.07	7.42	-115	4030	0	0.32	2.58
BAC-7	16.54	7.34	-124	4780	1.5	0.38	3.06

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	17.03	7.37	-45	3340	1.1	8.42	2.14
WW-U-1	18.15	6.96	-57	7980	11.5	1.02	5.02
WW-U-2	17.03	7.29	-15	7470	2.3	1.36	4.71
WWC-1	15.08	6.74	-32	19700	0.3	1.8	12.2
WWC-2	15.4	7.75	-134	1650	1	0.44	1.06
WWC-3	15.31	8.09	207	1230	1.2	0.22	0.784
WWC-4	15.85	7.18	-70	5390	0.5	3.15	3.39
WWC-5	16.2	6.84	-61	7180	0	0.62	4.52

Round 7 Detection Monitoring - June 5-21, 2017																								
Landfill Wells	Results																							Radium 226 and 228 combined
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
CL-U-1	< 0.500	53	480	0.996	7.74	132	1010	<0.00200	0.0344	0.0826	<0.00200	0.00065	<0.00200	<0.00400	<0.00200	0.202	<0.000150	0.00402	<0.00200	<0.00200	0.36	0.95	1.31	
CL-U-2	< 0.500	55.1	444	1	7.8	134	952	<0.00200	0.0247	0.0938	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.19	<0.000150	0.00408	<0.00200	<0.00200	2.7	1	3.7	
CLW-1	< 0.500	36.4	322	1.06	7.85	68.2	772	<0.00200	0.0289	0.0615	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.173	<0.000150	0.00389	<0.00200	<0.00200	0.2	0.14	0.34	
CLW-2	< 0.500	44.7	436	1.19	7.83	102	964	<0.00200	0.0246	0.0754	<0.00200	<0.000500	0.00411	<0.00400	<0.00200	0.211	<0.000150	0.00461	<0.00200	<0.00200	0.24	1	1.24	
CLW-3	< 0.500	37.3	380	1.23	7.85	106	856	<0.00200	0.0378	0.0951	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.197	<0.000150	0.00498	<0.00200	<0.00200	0.27	0.29	0.56	
CLW-4	< 0.500	30.6	345	1.44	7.89	86.3	816	<0.00200	0.0352	0.0885	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.189	<0.000150	0.00481	<0.00200	<0.00200	0.29	0.3	0.59	
CLW-5	< 0.500	32.4	358	1.82	7.86	91.6	860	<0.00200	0.0203	0.0732	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.188	<0.000150	0.00572	<0.00200	<0.00200	1.4	1.2	2.6	
CLW-6	< 0.500	31	336	1.61	7.9	77.5	768	<0.00200	0.02	0.0893	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	0.183	<0.00200	0.0068	<0.00200	0.01	0.5	0.51	
CLW-7	< 0.500	41.5	352	1.01	7.88	70.4	832	<0.00200	0.0241	0.0514	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.169	<0.000150	0.0033	<0.00200	<0.00200	0.14	0.75	0.89	
CLW-8	< 0.500	38.4	339	1.02	7.81	73.1	812	<0.00200	0.0239	0.0681	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.176	<0.000150	0.00391	<0.00200	<0.00200	0.18	0.81	0.99	

Bottom Ash	Results																							Radium 226 and 228 combined
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
BA-U-1	< 0.500	26.3	317	1.75	8.32	52.9	776	<0.00200	0.0323	0.0901	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.191	<0.000150	0.0109	<0.00200	<0.00200	0.15	0.73	0.88	
BA-U-2	< 0.500	3.58	366	0.821	11.8	39.6	748	<0.00200	<0.00200	0.0899	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.215	<0.000150	0.0086	<0.00200	<0.00200	0.09	0.98	1.07	
BAC-1	1.91	88.7	914	0.266	8.92	702	2920	<0.00200	0.0145	0.0563	<0.00200	<0.000500	0.00666	<0.00400	<0.00200	0.305	<0.000150	0.0317	0.00643	<0.00200	0.2	0.99	1.19	
BAC-2	10.6	216	1730	<0.100	7.21	3260	7720	<0.00200	0.042	0.0211	<0.00200	<0.000500	0.00799	<0.00400	<0.00200	0.586	<0.000150	0.177	0.0138	<0.00200	0.14	0.64	0.78	
BAC-3	7.76	401	3510	<0.100	7.29	4900	13200	<0.00200	0.0251	0.0316	<0.00200	<0.000500	0.00858	<0.00400	<0.00200	1.17	<0.000150	0.0292	0.0212	<0.00200	0.3	0.76	1.06	
BAC-4	< 0.500	56.1	612	1.13	7.84	212	1220	<0.00200	0.0329	0.0666	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.228	<0.000150	0.0113	<0.00200	<0.00200	0.37	0.47	0.84	
BAC-5	< 0.500	58.3	654	1.1	7.76	217	1180	<0.00200	0.0297	0.0881	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.259	<0.000150	0.00728	<0.00200	<0.00200	0.31	0.28	0.59	
BAC-6	4.25	135	697	0.779	7.63	1110	2810	<0.00200	0.0229	0.0256	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.257	<0.000150	0.0921	0.00414	<0.00200	0.24	0.76	1	
BAC-7	3.4	146	632	0.864	7.78	1290	3170	<0.00200	0.0154	0.0288	<0.00200	<0.000500	0.00398	<0.00400	<0.00200	0.36	<0.000150	0.0888	0.00457	<0.00200	2.5	0.88	3.38	

Waste Water	Results																							Radium 226 and 228 combined
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228		
SI-U-1	< 0.500	116	763	0.522	7.56	427	1800	<0.00200	0.0101	0.0599	<0.00200	0.00128	0.00274	<0.00400	<0.00200	0.235	<0.000150	0.00233	<0.00200	<0.00200	0.2	1.3	1.5	
WW-U-1	1.18	312	2340	0.181	7.41	1450	4540	<0.00200	0.00568	0.0521	<0.00200	<0.000500	0.00212	<0.00400	<0.00200	0.441	<0.000150	0.00556	0.00625	<0.00200	1.2	1.5	2.7	
WW-U-2	0.741	338	2590	0.287	7.36	1040	12500	<0.00200	0.00325	0.0803	<0.00200	<0.000500	0.067	<0.00400	<0.00200	0.512	<0.000150	0.0226	0.00846	<0.00200	0.52	1.6	2.12	
WWC-1	9.88	413	4410	<0.100	7.14	2770	11000	<0.00200	0.0173	0.0326	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.11	0.000175	0.0147	0.0147	<0.00200	0.39	1.5	1.89	
WWC-2	< 0.500	49.5	326	0.447	7.85	134	832	<0.00200	0.0141	0.0339	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.138	<0.000150	0.00405	<0.00200	<0.00200	0.24	0.24	0.48	
WWC-3	< 0.500	25.9	220	0.974	8.12	84.3	696	<0.00200	0.0214	0.0281	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.146	<0.000150	0.00504	<0.00200	<0.00200	0.1	0.45	0.55	
WWC-4	1.33	229	1330	0.466	7.22	912	3060	<0.00200	0.013	0.0545	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.421	<0.000150	<0.00200	0.00241	<0.00200	0.22	0.74	0.96	
WWC-5	2.25	287	1790	<0.100	7.49	1420	4810	<0.00200	0.00753	0.0379	<0.00200	<0.000500	0.00202	<0.00400	<0.00200	0.567	<0.000150	0.00531	0.00336	<0.00200	0.2	1.5	1.7	

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	16.35	7.59	-206	1920	0	1.51	1.23
CL-U-2	15.98	7.5	-177	1860	0	1.62	1.19
CLW-1	18.47	7.79	-160	768	0	0.9	0.491
CLW-2	16.77	7.73	-210	945	0	1.52	0.605
CLW-3	17.35	7.78	-246	879	0	213	0.562
CLW-4	17.86	7.75	-252	1580	0	4.35	1.01
CLW-5	18.97	7.66	-232	1680	0	2.65	1.08
CLW-6	16.95	7.75	-258	1590	0	5.1	1.02
CLW-7	18.07	7.7	-131	805	0	2.21	0.516
CLW-8	17.59	7.74	-130	776	0	1.58	0.497

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	18.46	8.13	-138	1500	0	2.32	0.963
BA-U-2	19.9	11.43	-301	1870	0	0.58	1.2
BAC-1	22.57	9.92	-118	5180	15.6	2.32	3.27
BAC-2	19.02	7.09	-80	10900	2.2	0.84	6.76
BAC-3	18.87	7.1	-69	17800	3.2	1.02	11
BAC-4	17.01	7.62	-158	2380	0	1.61	1.52
BAC-5	17.31	7.69	-131	2560	0	2.62	1.64
BAC-6	19.46	7.59	-128	3900	35.2	0.85	2.5
BAC-7	17.97	7.5	-147	4610	2.9	1.16	2.95

Waste Water	Field Results										
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS				
SI-U-1	17.96	7.27	-138	3170	0	0.57	2.03				
WW-U-1	18.63	6.87	-32	8050	0	1	5.07				
WW-U-2	18.21	7.22	-161	7610	0	0.91	4.79				
WWC-1	16.96	6.95	-34	15200	0.1	0.67	9.48				
WWC-2	16.11	7.72	-169	1500	1.3	0.94	0.96				
WWC-3	16.94	7.99	-194	1210	0.7	0.63	0.773				
WWC-4	16.15	7.16	-73	5.48	0.5	0.6	3.46				
WWC-5	16.54	7.01	-42	7225	0.9	0.76	4.57				

Round 8 Detection Monitoring - September 25-October 4, 2017																								
Landfill Wells	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
CL-U-1	< 0.500	52.1	422	1.07	7.73	116	1130	<0.00200	0.0291	0.088	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.228	<0.000150	0.00398	<0.00200	<0.00200	0.25	1.6	1.85	
CL-U-2	< 0.500	53.8	390	1.1	7.67	120	1060	<0.00200	0.0262	0.0941	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.212	<0.000150	0.00415	<0.00200	<0.00200	0.17	1.4	1.57	
CLW-1	< 0.500	35.7	310	1.15	7.85	71.7	808	<0.00200	0.0308	0.0614	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.192	<0.000150	0.00407	<0.00200	<0.00200	0.21	1.7	1.91	
CLW-2	< 0.500	43.5	407	1.23	7.76	97.3	1040	<0.00200	0.0257	0.0793	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.229	<0.000150	0.00467	<0.00200	<0.00200	0.12	3	3.12	
CLW-3	< 0.500	36.2	347	1.34	7.8	100	884	<0.00200	0.0408	0.102	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.223	<0.000150	0.00474	<0.00200	<0.00200	0.16	1.1	1.26	
CLW-4	< 0.500	30.5	313	1.6	7.81	85.1	856	<0.00200	0.0333	0.09	<0.00200	<0.000500	0.0516	<0.00400	<0.00200	0.199	<0.000150	0.0115	<0.00200	<0.00200	0.24	1.8	2.04	
CLW-5	< 0.500	33.2	344	1.82	7.8	88.5	824	<0.00200	0.023	0.0727	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.211	<0.000150	0.0052	<0.00200	<0.00200	0.2	2.2	2.4	
CLW-6	< 0.500	30.5	317	1.73	7.82	74.5	828	<0.00200	0.0143	0.0961	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.199	<0.000150	0.00721	<0.00200	<0.00200	0.29	1.7	1.99	
CLW-7	< 0.500	45.5	319	1.11	7.7	64.5	868	<0.00200	0.0244	0.0539	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.189	<0.000150	0.00389	<0.00200	<0.00200	0.45	0.95	1.4	
CLW-8	< 0.500	37.9	319	1.13	7.77	70.6	788	<0.00200	0.0252	0.0689	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.192	<0.000150	0.00431	<0.00200	<0.00200	0.25	1.6	1.85	

Bottom Ash	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
BA-U-1	< 0.500	169	1040	1.02	7.53	343	2310	<0.00200	0.0215	0.0745	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.368	<0.000150	0.00296	0.00375	<0.00200	0.07	1.3	1.37
BA-U-2	< 0.500	46.3	479	0.993	8.04	53.7	1140	<0.00200	0.0249	0.156	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.241	<0.000150	0.00294	<0.00200	<0.00200	0.24	1.5	1.74
BAC-1	4.86	229	2620	0.854	7.4	2150	8400	<0.00200	0.0148	0.702	<0.00200	<0.000500	0.114	0.00461	<0.00200	0.52	<0.000150	0.0467	0.0174	<0.00200	0.39	1.6	1.99
BAC-2	10.1	221	1690	1.33	7.62	2970	7940	<0.00200	0.0469	0.0202	<0.00200	<0.000500	0.00547	<0.00400	<0.00200	0.431	<0.000150	0.154	0.0149	<0.00200	0.11	0.14	0.25
BAC-3	8.76	353	3370	2.51	7.43	5340	12700	<0.00200	0.054	0.0306	<0.00200	<0.000500	0.0114	<0.00400	<0.00200	0.897	<0.000150	0.0525	0.0287	<0.00200	0.23	1.3	1.53
BAC-4	< 0.500	62.4	482	1.26	7.76	231	1280	<0.00200	0.0359	0.0703	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.262	<0.000150	0.0139	<0.00200	<0.00200	0.1	2.5	2.6
BAC-5	< 0.500	67.5	593	1.17	7.74	269	1450	<0.00200	0.0325	0.0877	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.294	<0.000150	0.00838	<0.00200	<0.00200	0.26	2.7	2.96
BAC-6	0.978	77.2	516	1.01	7.97	301	1510	<0.00200	0.0156	0.0833	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.265	<0.000150	0.0213	<0.00200	<0.00200	0.27	3.8	4.07
BAC-7	3.41	144	633	1.15	7.65	1220	2990	<0.00200	0.0191	0.0223	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.285	<0.000150	0.074	0.00446	<0.00200	0.15	0.84	0.99

Waste Water	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
SI-U-1	< 0.500	110	820	0.618	7.55	263	1810	0.002	0.00969	0.0783	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.257	<0.000150	0.00251	<0.00200	<0.00200	0.44	0.56	1
WW-U-1	1.2	311	2130	0.539	7.23	1280	5260	<0.00200	0.0055	0.0545	<0.00200	<0.000500	0.003309	<0.00400	<0.00200	0.459	<0.000150	0.00792	0.00697	<0.00200	0.34	1.2	1.54
WW-U-2	1.66	314	2280	0.721	7.31	1220	5510	<0.00200	0.0104	0.0659	<0.00200	<0.000500	0.00415	<0.00400	<0.00200	0.485	<0.000150	0.00647	0.0122	<0.00200	0.24	1.3	1.54
WWC-1	9.55	492	4430	0.507	7.37	2990	11500	<0.00200	0.0177	0.0272	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.755	0.000262	0.0068	0.014	<0.00200	0.26	1.2	1.46
WWC-2	< 0.500	53.6	347	0.452	7.78	137	936	<0.00200	0.0142	0.0361	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.112	<0.000150	0.00341	<0.00200	<0.00200	0.04	1.2	1.24
WWC-3	< 0.500	25.3	207	1.13	8.14	84	704	<0.00200	0.0207	0.0242	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.127	<0.000150	0.00477	<0.00200	<0.00200	0.08	2	2.08
WWC-4	1.11	201	1100	0.57	7.38	744	3280	<0.00200	0.0135	0.0529	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.313	<0.000150	<0.00200	0.00214	<0.00200	0.38	0.4	0.78
WWC-5	1.48	327	1620	0.544	7.16	1240	4590	<0.00200	0.0104	0.0438	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.496	<0.000150	0.00395	0.00407	<0.00200	0.41	0.65	1.06

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	16.07	7.45	-199	1930	0.4	0.56	1.24
CL-U-2	15.67	7.43	-176	1880	0.8	0.58	1.2
CLW-1	20.49	7.68	-172	1.48	0	0.41	0.949
CLW-2	16.63	7.63	-199	1880	0.7	0.64	1.2
CLW-3	16.82	7.59	-251	1750	1.5	2.9	1.12
CLW-4	17.63	7.56	-269	1620	1.6	1.56	1.03
CLW-5	17.21	7.71	-244	1690	3.7	1.12	1.09
CLW-6	15.97	7.75	-259	1.6	2.3	3.3	1.02
CLW-7	16.72	7.59	-147	1640	0	0.86	1.05
CLW-8	18.26	7.65	-145	1.53	1.1	1.89	0.975

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	16.04	7.21	-166	4300	1.7	0.78	2.75
BA-U-2	16.58	8.07	-272	2030	0	1.63	1.3
BAC-1	15.36	6.93	-28	7170	1	0.54	4.52
BAC-2	16.95	6.92	-20	11500	2	0.9	7.11
BAC-3	16.87	7.07	-102	18.7	43.3	0.94	11.6
BAC-4	16.67	7.68	-148	2470	1.1	0.62	1.58
BAC-5	16.66	7.71	-140	2740	0.8	1.12	1.75
BAC-6	17.02	7.83	-47	2610	0.9	2.54	1.67
BAC-7	15.97	7.45	-121	4500	3.3	2.56	2.88

Waste Water	Field Results													
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS							
SI-U-1	17.02	7.36	-123	3490	0	1.25	2.24							
WW-U-1	16.41	6.96	-135	8820	0.7	1.56	5.56							
WW-U-2	16.68	7.09	-34	9.23	0.6	3.75	5.82							
WWC-1	16.21	6.78	48	18900	0.8	1.92	11.7							
WWC-2	16.38	7.64	-110	1740	1	2.87	1.12							
WWC-3	15.49	8.16	-207	1220	1.3	0.45	0.781							
WWC-4	16.11	7.17	-77	4980	1.2	0.46	3.19							
WWC-5	15.42	6.94	-31	7180	1.3	0.53	4.52							

Round 9 Assessment Monitoring - March 26-30, 2018																								
Landfill Wells	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
CL-U-1	< 0.500	62.6	402	0.971	7.66	94.9	1090	<0.00200	0.0283	0.0758	<0.00200	<0.000500	0.000529	<0.00400	<0.00200	0.209	<0.000150	0.00359	<0.00200	<0.00200	0.18	0.81	0.99	
CL-U-2	< 0.500	64.1	352	0.895	7.65	92.7	980	<0.00200	0.0236	0.0873	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.194	<0.000150	0.00376	<0.00200	<0.00200	0.34	0.16	0.5	
CLW-1	< 0.500	37.8	318	1.02	7.67	59.5	720	<0.00200	0.0265	0.053	<0.00200	<0.000500	0.0271	<0.00400	<0.00200	0.179	<0.000150	0.0068	<0.00200	<0.00200	0.09	0.53	0.62	
CLW-2	< 0.500	51.4	421	1.13	7.8	79.4	1020	<0.00200	0.0258	0.0711	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.212	<0.000150	0.00439	<0.00200	<0.00200	0.24	0.94	1.18	
CLW-3	< 0.500	42.8	334	1.23	7.86	82.3	956	<0.00200	0.0364	0.089	<0.00200	<0.000500	0.000505	<0.00400	<0.00200	0.2	<0.000150	0.00464	<0.00200	<0.00200	0.37	0.94	1.31	
CLW-4	< 0.500	35.8	301	1.35	7.77	70.4	864	<0.00200	0.0352	0.0788	<0.00200	<0.000500	0.000762	<0.00400	<0.00200	0.189	<0.000150	0.00477	<0.00200	<0.00200	0.46	0.59	1.05	
CLW-5	< 0.500	37.4	354	1.71	7.66	79.9	876	<0.00200	0.021	0.0671	<0.00200	<0.000500	0.000712	<0.00400	<0.00200	0.194	<0.000150	0.0054	<0.00200	<0.00200	0.15	0.96	1.11	
CLW-6	< 0.500	34.2	292	1.62	7.74	60.4	916	<0.00200	0.0104	0.0885	<0.00200	<0.000500	0.000612	<0.00400	<0.00200	0.182	<0.000150	0.00729	<0.00200	<0.00200	0.56	0.48	1.04	
CLW-7	< 0.500	47	316	0.972	7.59	51.3	792	<0.00200	0.0215	0.0475	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.183	<0.000150	0.00341	<0.00200	<0.00200	0.28	0.22	0.5	
CLW-8	< 0.500	44.1	303	0.981	7.63	54.2	792	<0.00200	0.0231	0.0609	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.188	<0.000150	0.00376	<0.00200	<0.00200	0.25	0.8	1.05	
Bottom Ash	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
BA-U-1	< 0.500	33.5	296	1.64	8.05	50.7	872	<0.00200	0.0276	0.0837	<0.00200	<0.000500	0.00126	<0.00400	<0.00200	0.199	<0.000150	0.00914	0.0022	<0.00200	0.07	0.31	0.38	
BA-U-2	< 0.500	46.2	399	0.943	8.2	46.9	1080	<0.00200	0.0227	0.125	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.209	<0.000150	0.00311	0.000691	<0.00200	0.12	0.34	0.46	
BAC-1	3.88	192	1890	0.507	7.63	1470	6120	0.00138	0.0127	0.0501	<0.00200	<0.000500	0.00451	<0.00400	<0.00200	0.581	<0.000150	0.028	0.00924	<0.00200	0.31	0.48	0.79	
BAC-2	9.89	283	1940	1.32	7.72	3070	8590	<0.00200	0.0508	0.0238	<0.00200	<0.000500	0.00777	<0.00400	<0.00200	0.524	<0.000150	0.142	0.0173	<0.00200	0.29	0.89	1.18	
BAC-3	7.91	417	3480	1.62	7.84	4460	13000	<0.00200	0.0441	0.0331	<0.00200	<0.000500	0.00468	<0.00400	<0.00200	1.05	<0.000150	0.0396	0.0228	<0.00200	0.28	1.25	1.53	
BAC-4	< 0.500	67.4	489	1.14	7.74	221	1300	<0.00200	0.0316	0.0605	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.249	<0.000150	0.0143	<0.00200	<0.00200	0.1	0.81	0.91	
BAC-5	< 0.500	74.8	524	1.07	7.68	234	1480	<0.00200	0.0275	0.0706	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.284	<0.000150	0.00915	<0.00200	<0.00200	0.24	0.5	0.74	
BAC-6	4.58	145	595	1.15	7.48	1100	2600	<0.00200	0.0214	0.0227	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.28	<0.000150	0.0898	0.00249	<0.00200	0.08	0.72	0.8	
BAC-7	4.51	137	1980	0.388	7.57	1100	2730	<0.00200	0.0235	0.0195	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.288	<0.000150	0.0752	0.0048	<0.00200	0.14	0.71	0.85	
Waste Water	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
SI-U-1	< 0.500	129	739	0.506	7.5	201	1840	<0.00200	0.00929	0.0741	<0.00200	<0.000500	0.00137	<0.00400	<0.00200	0.241	<0.000150	0.00227	<0.00200	<0.00200	0.04	0.73	0.77	
WW-U-1	1.34	339	1900	0.406	7.05	1050	5280	<0.00200	0.005	0.0486	<0.00200	<0.000500	0.00193	<0.00400	<0.00200	0.436	<0.000150	0.00702	0.00653	<0.00200	0.45	0.91	1.36	
WW-U-2	1.47	370	2010	0.532	7.16	925	5260	<0.00200	0.00642	0.0499	<0.00200	<0.000500	0.00144	<0.00400	<0.00200	0.475	<0.000150	0.00467	0.0115	<0.00200	0.34	0.94	1.28	
WWC-1	11.9	638	4100	0.236	6.89	2640	12700	<0.00200	0.02	0.0209	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.805	0.000205	0.00596	0.015	<0.00200	0.25	1.21	1.46	
WWC-2	< 0.500	57.2	308	0.41	7.62	111	784	<0.00200	0.014	0.031	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.104	<0.000150	0.00356	<0.00200	<0.00200	0.1	0.55	0.65	
WWC-3	< 0.500	28.9	200	0.985	7.96	67.8	628	<0.00200	0.0214	0.0245	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.131	<0.000150	0.00464	<0.00200	<0.00200	0.07	0.27	0.34	
WWC-4	1.19	200	1010	0.365	7.3	593	2790	<0.00200	0.0128	0.0463	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.355	<0.000150	<0.00200	<0.00200	<0.00200	0.22	0.58	0.8	
WWC-5	2.86	321	1600	0.384	6.92	1450	5030	<0.00200	0.0096	0.0302	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.511	<0.000150	0.00301	0.00415	<0.00200	0.2	1.64	1.84	

Round 9							
Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	14.91	7.28	-193	1940	0.6	0.54	1.24
CL-U-2	14.84	7.24	-174	1890	0.2	0.67	1.21
CLW-1	16.76	7.7	-186	1530	0.2	0.7	0.98
CLW-2	15.47	7.6	-204	1880	0.4	0.96	1.22
CLW-3	16.64	7.49	-236	1720	0	1.61	1.1
CLW-4	16.15	7.51	-259	1610	0	2.2	1.03
CLW-5	16.46	7.43	-239	1720	3	1	1.1
CLW-6	15.56	7.47	-250	1600	0.1	3.61	1.03
CLW-7	18.88	7.52	-123	1570	0	1.89	1
CLW-8	18.47	7.58	-129	1520	0	0.45	0.973

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	15.13	7.78	-33	1600	0.6	3.82	1.02
BA-U-2	16.14	8.65	-281	1750	0.2	0.25	1.12
BAC-1	16.99	7.23	-189	9190	8.1	0.52	5.79
BAC-2	15.94	6.82	-77	12000	1.2	0.51	7.44
BAC-3	15.37	7.03	-82	18900	5	3.65	11.7
BAC-4	15.79	7.47	-150	2500	0.5	0.7	1.6
BAC-5	18.41	7.47	-149	2570	0.5	3.97	1.63
BAC-6	19.15	7.32	-92	3810	0.5	0.55	2440
BAC-7	19.26	7.4	-101	4190	3	3.14	2.68

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	16.11	7.56	-31	3240	0	0.71	2.07
WW-U-1	16.35	7.11	-75	8010	0.7	0.4	5.03
WW-U-2	16.11	7.27	-10	8450	0.2	0.47	5.32
WWC-1	16.03	6.65	-17	19900	0	2.51	12.4
WWC-2	15.75	7.52	-124	1650	0.4	0.55	1.05
WWC-3	14.89	7.81	-190	1250	1.1	0.79	0.8
WWC-4	16.17	7.26	-64	4600	2.3	0.37	2.92
WWC-5	17.27	7.02	-36	7300	0	0.34	4.6

Round 10 Assessment Monitoring - June 4-13, 2018																									
Landfill Wells	Results																								
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined		
CL-U-1	< 0.500	54.7	372	0.853	7.7	98	984	<0.00200	0.0272	0.0799	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.208	<0.000150	0.00361	<0.00200	<0.00200	0.18	0.67	0.85		
CL-U-2	< 0.500	56.4	365	0.862	7.64	108	952	<0.00200	0.0242	0.09	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.195	<0.000150	0.0038	<0.00200	<0.00200	-0.02	0.67	0.65		
CLW-1	< 0.500	35.2	298	1.02	7.93	57.8	748	<0.00200	0.0285	0.0568	<0.00200	<0.000500	0.00102	<0.00400	<0.00200	0.184	<0.000150	0.00388	0.000928	<0.00200	0.29	1.01	1.3		
CLW-2	< 0.500	44.6	399	1.14	7.79	86.8	980	<0.00200	0.0247	0.072	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.222	<0.000150	0.00433	<0.00200	<0.00200	0.25	0.96	1.21		
CLW-3	< 0.500	37.5	323	1.16	7.91	94.2	876	<0.00200	0.0382	0.0948	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00483	<0.00200	<0.00200	0.18	0.55	0.73		
CLW-4	< 0.500	31.8	289	1.35	7.91	76.4	836	<0.00200	0.0358	0.0801	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.204	<0.000150	0.00459	<0.00200	<0.00200	0.13	0.85	0.85		
CLW-5	< 0.500	33.1	318	1.59	7.79	75.3	804	<0.00200	0.0215	0.0689	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.21	<0.000150	0.00519	<0.00200	<0.00200	0.11	0.76	0.87		
CLW-6	< 0.500	29.9	292	1.45	7.88	66.3	796	<0.00200	0.0109	0.0902	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.199	<0.000150	0.00711	<0.00200	<0.00200	0.27	0.85	1.12		
CLW-7	< 0.500	40.6	321	0.945	7.68	58.6	900	<0.00200	0.0234	0.0514	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.186	<0.000150	0.00329	<0.00200	<0.00200	0.16	0.97	0.97		
CLW-8	< 0.500	38.8	314	0.933	7.73	63.5	768	<0.00200	0.0244	0.0632	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.188	<0.000150	0.00359	<0.00200	<0.00200	0.18	1.26	1.26		
Bottom Ash	Results																								
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined		
BA-U-1	< 0.500	140	799	0.818	7.54	254	1970	<0.00200	0.0199	0.0636	<0.00200	<0.000500	0.000506	<0.00400	<0.00200	0.337	<0.000150	0.00279	0.00324	<0.00200	0.39	1.94	2.33		
BA-U-2	< 0.500	70.1	578	0.73	7.68	63.5	1330	<0.00200	0.0208	0.145	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.279	<0.000150	0.00215	0.00201	<0.00200	0.16	1.13	1.13		
BAC-1	2.16	113	1190	0.315	7.92	971	3120	0.00158	0.0141	0.0393	<0.00200	<0.000500	0.00714	<0.00400	<0.00200	0.314	<0.000150	0.0288	0.00694	<0.00200	0.24	1.06	1.3		
BAC-2	8.44	263	2210	0.684	7.1	3430	7720	<0.00200	0.0445	0.021	<0.00200	<0.000500	0.00483	<0.00400	<0.00200	0.463	<0.000150	0.143	0.0154	<0.00200	0.12	1.03	1.03		
BAC-3	7.26	347	3870	1.52	7.42	5080	12700	<0.00200	0.0588	0.0327	<0.00200	<0.000500	0.00511	<0.00400	<0.00200	0.944	<0.000150	0.0467	0.0229	<0.00200	0.27	1.44	1.71		
BAC-4	< 0.500	62.8	510	1.01	7.95	221	1290	<0.00200	0.0322	0.0672	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.247	<0.000150	0.0165	<0.00200	<0.00200	0.06	0.92	0.98		
BAC-5	< 0.500	73.5	591	0.916	7.82	302	1180	<0.00200	0.0292	0.0763	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.288	<0.000150	0.0128	<0.00200	<0.00200	0.19	1.56	1.75		
BAC-6	4.12	134	694	0.582	7.65	1120	2980	<0.00200	0.0217	0.0235	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.25	<0.000150	0.0938	0.00229	<0.00200	0.14	1.02	1.02		
BAC-7	4.36	130	709	1.09	7.74	1280	2760	<0.00200	0.0275	0.0204	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.269	<0.000150	0.0757	0.00541	<0.00200	0.06	0.87	0.93		
Waste Water	Results																								
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined		
SI-U-1	< 0.500	123	873	0.499	7.62	209	2040	<0.00200	0.00839	0.0653	<0.00200	<0.000500	0.000602	<0.00400	<0.00200	0.254	<0.000150	0.00182	<0.00200	<0.00200	0.32	1.34	1.66		
WW-U-1	1.19	289	1940	0.265	7.17	1140	5450	<0.00200	0.00477	0.0479	<0.00200	<0.000500	0.00124	<0.00400	<0.00200	0.443	<0.000150	0.00591	0.00663	<0.00200	0.23	1.49	1.72		
WW-U-2	1.23	337	2130	1.01	7.3	985	5120	<0.00200	0.0102	0.0459	<0.00200	<0.000500	0.00137	<0.00400	<0.00200	0.508	<0.000150	0.00277	0.0112	<0.00200	0.05	0.93	0.93		
WWC-1	8.22	504	4710	0.114	7.2	2730	11100	<0.00200	0.0173	0.0268	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.831	0.000168	0.00896	0.0139	<0.00200	0.25	1.16	1.16		
WWC-2	< 0.500	50	340	0.358	7.91	119	852	<0.00200	0.0143	0.0338	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.11	<0.000150	0.00372	<0.00200	<0.00200	0.08	0.27	0.35		
WWC-3	< 0.500	27.3	230	0.897	8.05	88.4	644	<0.00200	0.0226	0.0278	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.125	<0.000150	0.00527	<0.00200	<0.00200	-0.03	0.15	0.12		
WWC-4	0.998	184	1080	0.435	7.43	620	2640	<0.00200	0.0129	0.0495	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.309	<0.000150	0.00215	0.00201	<0.00200	0.28	0.35	0.63		
WWC-5	2.64	314	1820	0.219	7.26	1660	5200	<0.00200	0.0104	0.0327	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.472	<0.000150	0.00324	0.00395	<0.00200	0.1	1.58	1.58		

Round 10							
Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	17.54	7.56	-196	1888	1.7	0.39	1.2
CL-U-2	17.81	7.55	-171	1830	0.7	2.53	1.17
CLW-1	19.97	7.67	-159	1480	2.1	4.08	9.45
CLW-2	17.54	7.63	-220	1830	4.5	0.63	1.18
CLW-3	17.95	7.73	-260	1680	5.5	1.57	1.07
CLW-4	17.85	7.73	-278	1570	2.8	1.64	1
CLW-5	17.16	7.72	-276	1660	8.2	1.29	1.07
CLW-6	17.86	7.83	-280	1570	8	2.56	1.01
CLW-7	17.32	7.6	-150	1610	15.7	3.84	1.03
CLW-8	17.1	7.61	-194	1550	2	0.73	0.985

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	19.26	7.41	-163	3640	1	0.46	2.33
BA-U-2	18.16	7.63	-187	2370	2.1	1.31	1.51
BAC-1	17.87	8.86	-418	6480	53.2	2.95	4.04
BAC-2	16.94	6.98	-63	12400	2.3	4.29	7.68
BAC-3	17.19	7.16	-356	18300	15.2	0.87	11.4
BAC-4	17.11	7.64	-149	2500	1.5	0.75	1.6
BAC-5	17.63	7.61	-126	2850	1.2	0.65	1.83
BAC-6	17.58	7.51	-112	4210	0	0.51	2.63
BAC-7	17.32	7.6	-127	4440	0	0.56	2.84

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	18.38	7.39	-108	3510	1.7	0.79	2.25
WW-U-1	21.81	6.92	-77	8180	0.1	0.51	5.14
WW-U-2	18.76	7.09	-16	8130	7.6	1.06	5.12
WWC-1	16.92	6.94	-84	15600	1.5	4.48	9.65
WWC-2	17.4	7.75	-163	1570	1.2	0.4	1
WWC-3	17.01	7.89	-191	1220	2.6	0.42	0.782
WWC-4	18.39	7.27	-106	4320	2.4	1.17	2.77
WWC-5	15.81	6.98	-84	7740	0.8	0.58	4.88

Round 11 (all results ppm) Assessment Monitoring - October 8-18, 2018

Landfill Wells	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
CL-U-1	< 0.500	61.9	415	0.981	7.79	122	1060	<0.00200	0.029	0.0796	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.229	<0.000150	0.00383	<0.00200	<0.00200	0.09	0.32	0.41
CL-U-2	< 0.500	67.5	414	0.995	7.73	128	1010	<0.00200	0.0255	0.0919	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.212	<0.000150	0.00408	<0.00200	<0.00200	0.12	0.94	0.94
CLW-1	< 0.500	39.6	288	1.06	7.76	61.9	784	<0.00200	0.0298	0.0582	<0.00200	<0.000500	0.0157	<0.00400	<0.00200	0.194	<0.000150	0.00589	<0.00200	<0.00200	0.11	1.2	1.2
CLW-2	< 0.500	49.7	475	1.19	7.72	88.1	904	<0.00200	0.0244	0.0716	<0.00200	<0.000500	0.014	<0.00400	<0.00200	0.227	<0.000150	0.00593	<0.00200	<0.00200	0.17	0.39	0.56
CLW-3	< 0.500	42	325	1.27	7.79	95	888	<0.00200	0.0384	0.0941	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.217	<0.000150	0.0052	<0.00200	<0.00200	0.33	0.68	1.01
CLW-4	< 0.500	35.2	297	1.45	7.85	80.7	792	<0.00200	0.0375	0.0786	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.211	<0.000150	0.00525	<0.00200	<0.00200	1.89	0.65	1.89
CLW-5	< 0.500	36.9	320	1.7	7.72	85.3	852	<0.00200	0.0229	0.0714	<0.00200	<0.000500	0.00999	<0.00400	<0.00200	0.213	<0.000150	0.00679	<0.00200	<0.00200	1.87	0.17	1.87
CLW-6	< 0.500	33.8	292	1.6	7.82	73.3	804	<0.00200	0.0152	0.0873	<0.00200	<0.000500	0.0116	<0.00400	<0.00200	0.204	<0.000150	0.00746	<0.00200	<0.00200	0.18	0.41	0.59
CLW-7	< 0.500	46.5	399	1.02	7.65	73.2	780	<0.00200	0.0232	0.0491	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.19	<0.000150	0.00416	<0.00200	<0.00200	0.05	0.07	0.12
CLW-8	< 0.500	43	300	1.04	7.71	66.5	796	<0.00200	0.0254	0.0643	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.192	<0.000150	0.00503	<0.00200	<0.00200	0.19	1.2	1.2

Bottom Ash	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
BA-U-1	< 0.500	73.9	561	0.881	7.97	62.2	1050	<0.00200	0.0216	0.149	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.276	<0.000150	0.00237	<0.00200	<0.00200	0.44	0.74	1.18
BA-U-2	< 0.500	143	885	0.977	7.58	298	1750	<0.00200	0.0209	0.0728	<0.00200	<0.000500	0.0125	<0.00400	<0.00200	0.321	<0.000150	0.00574	<0.00200	<0.00200	0.22	0.62	0.84
BAC-1	4.87	225	1840	0.582	7.57	1760	6420	<0.00200	0.0129	0.0391	<0.00200	<0.000500	0.0184	<0.00400	<0.00200	0.629	<0.000150	0.0232	0.00818	<0.00200	0.45	0.88	1.33
BAC-2	9.98	255	1660	1.1	7.35	2730	7800	<0.00200	0.0565	0.0204	<0.00200	<0.000500	0.0111	<0.00400	<0.00200	0.472	<0.000150	0.156	0.0157	<0.00200	0.08	0.96	0.96
BAC-3	8.33	469	3280	1.63	7.31	4450	12300	<0.00200	0.0496	0.0317	<0.00200	<0.000500	0.00968	<0.00400	<0.00200	1.06	<0.000150	0.038	0.022	<0.00200	0.39	1.06	1.45
BAC-4	0.523	68.1	501	1.15	7.96	273	1300	<0.00200	0.00882	0.0171	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.267	<0.000150	0.017	<0.00200	<0.00200	-0.16	0.48	0.32
BAC-5	< 0.500	82.2	557	1.04	7.86	353	1460	<0.00200	0.0325	0.0714	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.323	<0.000150	0.0134	<0.00200	<0.00200	0.26	0.81	1.07
BAC-6	4.57	138	624	0.847	7.75	1080	2340	<0.00200	0.0248	0.0245	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.276	<0.000150	0.0842	<0.00200	<0.00200	0.17	1.02	1.19
BAC-7	4.24	143	649	1.51	7.75	1210	2830	<0.00200	0.0434	0.0214	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.303	<0.000150	0.075	0.00579	<0.00200	0.19	0.71	0.9

Waste Water	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
SI-U-1	< 0.500	139	805	0.533	7.63	394	1760	<0.00200	0.0103	0.0575	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.265	<0.000150	0.00241	<0.00200	<0.00200	0.07	0.85	0.85
WW-U-1	1.36	357	2150	0.41	7.28	1360	5090	<0.00200	<0.00200	0.0449	<0.00200	<0.000500	0.0258	<0.00400	<0.00200	0.456	<0.000150	0.0101	0.00682	<0.00200	0.43	1.2	1.63
WW-U-2	1.23	380	2160	0.604	7.31	1090	4570	<0.00200	0.0109	0.0446	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.519	<0.000150	0.00338	0.0105	<0.00200	0.14	0.83	0.83
WWC-1	12	607	4430	0.331	7.25	3210	13000	<0.00200	0.0243	0.0223	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.964	0.000312	0.00835	0.0145	<0.00200	0.15	1.2	1.35
WWC-2	< 0.500	59.5	344	0.448	7.85	139	832	<0.00200	0.0152	0.0344	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.124	<0.000150	0.00304	<0.00200	<0.00200	0.17	0.03	0.2
WWC-3	< 0.500	29.7	209	1.06	7.92	84.2	436	<0.00200	0.0247	0.0289	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.139	<0.000150	0.00482	<0.00200	<0.00200	0	0.76	0.76
WWC-4	1.34	219	1030	0.481	7.46	692	2880	<0.00200	0.0145	0.0507	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.36	<0.000150	<0.00200	<0.00200	<0.00200	0.03	0.8	0.83
WWC-5	3.07	364	1720	0.431	7.38	1620	5000	<0.00200	0.0131	0.034	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.523	<0.000150	0.0031	0.00478	<0.00200	0.2	-0.56	-0.36

Round 11

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	17.4	7.85	-132	1800	40.9	0.61	1.15
CL-U-2	18.15	7.83	-97	1770	0	3.95	1.13
CLW-1	17.83	7.93	-114	1490	0	1.48	0.951
CLW-2	16.04	7.84	-184	1850	0.6	2.72	1.18
CLW-3	17.52	7.98	-178	1660	3.6	3.1	1.06
CLW-4	18.53	8.02	-192	1530	7.2	1.63	0.983
CLW-5	21	7.94	-175	1640	0	1.29	1.05
CLW-6	16.49	8.02	-210	1560	0	2.23	1
CLW-7	17.12	7.83	-81	1560	2.4	2.97	1
CLW-8	17.05	7.91	-130	1510	0	1.37	0.963

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	16.4	7.71	-41	3010	0	0.7	1.94
BA-U-2	18.72	8.31	-138	2010	0	0.56	1.28
BAC-1	16.12	7.43	-228	9840	77.8	0.85	6.2
BAC-2	16.79	7.15	-22	11200	2.5	1.3	6.93
BAC-3	16.79	7.31	42	18300	7	5.15	11.3
BAC-4	15.08	7.77	-69	2500	0.2	0.61	1.6
BAC-5	16.95	7.88	-43	2860	0	0.52	1.83
BAC-6	17.13	7.74	-35	3970	0	0.49	2.54
BAC-7	17	7.76	-71	4420	1.9	0.48	2.84

Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	17.1	7.65	-6	3290	0	0.58	2.11
WW-U-1	16.29	7.25	-7	8350	0.6	0.87	5.27
WW-U-2	16.41	7.44	55	7730	0	1.5	4.87
WWC-1	16.6	7.11	40	19600	0	4.49	12.1
WWC-2	17.73	7.91	-84	1600	2.1	0.62	1.03
WWC-3	16.97	8.12	-179	1190	0.2	0.56	0.759
WWC-4	16.27	7.4	-32	4780	0.7	0.54	3.06
WWC-5	15.76	7.16	-11	7580	1	3.51	4.77

Round 12 (all results ppm) Assessment Monitoring - April 4 - May 15, 2019																								
Landfill Wells	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
CL-U-1	< 0.500	61.1	388	0.989	7.74	112	932	<0.00200	0.0279	0.0841	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.231	<0.000150	0.0036	<0.00200	<0.00200	0.13	0.4	0.53	
CL-U-2	< 0.500	68.4	378	1.02	7.74	97.6	920	<0.00200	0.0254	0.0943	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00405	<0.00200	<0.00200	0.31	0.94	1.25	
CLW-1	< 0.500	39.4	303	1.12	7.88	64.5	692	<0.00200	0.002	0.0589	<0.00200	<0.000500	0.00742	<0.00400	<0.00200	0.203	<0.000150	0.00481	<0.00200	<0.00200	0	0.41	0.41	
CLW-2	< 0.500	55.1	416	1.25	7.8	96.4	976	<0.00200	0.0259	0.0743	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.253	<0.000150	0.00423	<0.00200	<0.00200	0.21	0.75	0.96	
CLW-3	< 0.500	44.5	351	1.34	7.83	98.4	884	<0.00200	0.0382	0.0970	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.243	<0.000150	0.00488	<0.00200	<0.00200	0.16	0.49	0.65	
CLW-4	< 0.500	38.8	321	1.45	7.90	85.5	968	<0.00200	0.0376	0.0819	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.232	<0.000150	0.00425	<0.00200	<0.00200	0.47	0.54	1.01	
CLW-5	< 0.500	38.5	340	1.85	7.93	85.6	936	<0.00200	0.0236	0.0707	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.226	<0.000150	0.00515	<0.00200	<0.00200	0.14	0.28	0.42	
CLW-6	< 0.500	38.4	270	1.55	7.89	72.8	828	<0.00200	0.0271	0.0896	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.214	<0.000150	0.00478	<0.00200	<0.00200	0.2	0.78	0.98	
CLW-7	< 0.500	51.3	336	1.07	7.76	68.9	792	<0.00200	0.0258	0.0511	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.205	<0.000150	0.00323	<0.00200	<0.00200	-0.09	0.54	0.45	
CLW-8	< 0.500	44.3	317	1.11	7.81	67.2	776	<0.00200	0.0257	0.0621	<0.00200	<0.000500	0.00200	<0.00400	<0.00200	0.212	<0.000150	0.00358	<0.00200	<0.00200	0.27	0.22	0.49	
CLW-9	< 0.500	26.2	298	2.02	7.91	86.4	760	<0.00200	0.0368	0.0462	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.168	<0.000150	0.00518	<0.00200	<0.00200	0.21	0.21	0.42	
CL-U-3	< 0.500	59.6	390	0.872	7.83	114	984	<0.00200	0.0183	0.0495	<0.00200	<0.000500	0.00565	<0.00400	<0.00200	0.212	<0.000150	0.00372	<0.00200	<0.00200	0	0.48	0.48	

Bottom Ash	Results																								Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228					
BA-U-1	< 0.500	174	934	0.919	7.61	271	2050	<0.00200	0.002	0.0776	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.354	<0.000150	0.00312	0.00458	<0.00200	0	0.4	0.4				
BA-U-2	< 0.500	91.8	718	0.844	7.68	102	1350	<0.00200	0.0211	0.1670	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.300	<0.000150	0.00222	0.00234	<0.00200	0.18	0.62	0.8				
BAC-1	1.31	72.4	431	0.197	8.42	404	1830	<0.00200	0.0121	0.0567	<0.00200	<0.000500	0.00359	<0.00400	<0.00200	0.172	<0.000150	0.142	0.00278	<0.00200	0.28	0.09	0.37				
BAC-2	10.3	233	1700	1.11	7.2	2590	8310	<0.00200	0.0519	0.0180	<0.00200	<0.000500	0.00556	<0.00400	<0.00200	0.491	<0.000150	0.163	0.0145	<0.00200	0.17	0.48	0.65				
BAC-3	8.64	417	3400	1.3	7.24	4090	12900	<0.00200	0.0472	0.0272	<0.00200	<0.000500	0.00593	<0.00400	<0.00200	1.030	0.000105	0.0388	0.0206	<0.00200	0.17	0.77	0.94				
BAC-4	0.553	72.4	488	1.22	7.76	269	1270	<0.00200	0.0319	0.0641	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.281	<0.000150	0.0196	<0.00200	<0.00200	0.16	0.58	0.74				
BAC-5	< 0.500	91.8	585	1.07	7.73	393	1540	<0.00200	0.0294	0.0594	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.334	<0.000150	0.0168	<0.00200	<0.00200	-0.1	0.27	0.17				
BAC-6	4.4	137	536	0.866	7.84	963	2260	<0.00200	0.0248	0.0206	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.283	<0.000150	0.0923	<0.00200	<0.00200	-0.09	-0.38	-0.47				
BAC-7	5.17	142	529	1.34	7.72	985	2760	<0.00200	0.0298	0.0184	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.284	<0.000150	0.0908	<0.00388	<0.00200	0.09	0.34	0.43				
BAC-8	< 0.500	27.8	266	1.61	7.92	81.1	708	<0.00200	0.0519	0.0732	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.165	<0.000150	0.0055	<0.00200	<0.00200	0.31	0.41	0.72				
BAC-9	< 0.500	28.4	283	1.7	7.91	82.6	736	<0.00200	0.583	0.051	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.167	<0.000150	0.00451	<0.00200	<0.00200	0.06	0.53	0.59				
BAC-10	< 0.500	31.1	273	1.66	7.91	85	788	<0.00200	0.0527	0.0612	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.171	<0.000150	0.00567	<0.00200	<0.00200	0.15	0.5	0.65				
Waste Water	Results																								Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228					
SI-U-1	< 0.500	147	744	0.519	7.59	263	1840	<0.00200	0.00927	0.0634	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.271	<0.000150	0.00206	<0.00200	<0.00200	0.27	0.59	0.86				
WW-U-1	1.39	323	1820	0.416	7.27	1140	5120	<0.00200	0.00592	0.0442	<0.00200	<0.000500	0.00432	<0.00400	<0.00200	0.431	<0.000150	0.00702	0.00748	<0.00200	0.38	0.89	1.27				
WW-U-2	1.16	347	1170	0.633	7.45	872	4270	<0.00200	0.0114	0.0473	<0.00200	<0.000500	0.00237	<0.00400	<0.00200	0.484	<0.000150	0.00411	0.0113	<0.00200	0.19	0.54	0.73				
WWC-1	12.9	584	4600	0.245	7.1	3190	13800	<0.00200	0.0215	0.0183	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.000	0.00018	0.00794	0.0146	<0.00200	0.13	0.82	0.95				
WWC-2	< 0.500	54.2	316	0.534	7.75	128	824	<0.00200	0.0161	0.0296	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.128	<0.000150	0.00348	<0.00200	<0.00200	-0.06	0.5	0.44				
WWC-3	< 0.500	35.3	244	1.14	7.79	86	764	<0.00200	0.0226	0.0306	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.151	<0.000150	0.00471	<0.00200	<0.00200	0.06	0.38	0.44				
WWC-4	1.34	240	1030	0.449	7.97	673	2780	<0.00200	0.0133	0.0412	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.388	<0.000150	<0.00200	<0.00200	<0.00200	-0.03	0.56	0.53				
WWC-5	3	388	1600	0.493	7.12	1440	5160	<0.00200	0.0134	0.0309	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.557	<0.000150	0.00203	0.00448	<0.00200	0.18	1.12	1.12				
WWC-6	0.535	137	943	0.25	7.54	451	2470	<0.00200	0.0133	0.0822	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.204	<0.000150	0.00484	<0.00200	<0.00200	0.48	0.81	1.29				
WWC-7	< 0.500	42.8	187	0.422	7.93	119	640	<0.00200	0.0165	0.0314	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.000150	0.00386	<0.00200	<0.00200	0.16	0.18	0.34				
WWC-8	0.561	151	943	0.391	7.54	537	440	<0.00200	0.0081	0.173	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.23	<0.000150	0.00632	0.00274	<0.00200	0.29	0.68	0.97				
WWC-9	< 0.500	42.6	212	1.11	8.01	78.2	560	<0.00200	0.0261	0.0973	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.147	<0.000150	0.00538	<0.00200	<0.00200	0.16	0.27	0.43				
WWC-10	< 0.500	52.3	328	0.651	7.85	141	1070	<0.00200	0.0265	0.0615	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.115	<0.000150	0.00854	<0.00200	<0.00200	0.13	0.49	0.62				

Date Oct. 2018

Round 12							
Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	15.92	7.84	-138	1880	1.6	0.42	1.2
CL-U-2	15.68	7.81	-119	1820	4.7	0.6	1.17
CLW-1	15.59	7.68	-68	1540	0.9	2.06	0.984
CLW-2	15.77	7.86	-187	1870	1.7	1.5	1.2
CLW-3	15.45	7.93	-201	1720	2.1	1.37	1.1
CLW-4	15.51	7.97	-203	1610	12.7	1.55	1.03
CLW-5	15.07	7.94	-214	1.69	3.8	3.03	1.08
CLW-6	16.62	8.04	-225	1570	1.1	1.54	1
CLW-7	16.75	7.76	-79	1630	0.5	0.91	1.05
CLW-8	16.41	7.82	-99	1570	0.07	1.7	1.01
CLW-9	15.39	7.98	-184	1550	3.6	0.83	0.993
CL-U-3	15.07	7.55	-197	1830	0.3	2.51	1.17

Bottom Ash	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
BA-U-1	18.39	7.67	-60	3720	1.1	0.31	2.38
BA-U-2	16.57	7.81	-97	2710	2	0.38	1.74
BAC-1	19.56	8.75	-282	1340	22.8	1.17	0.852
BAC-2	18.83	7.25	-39	5370	2.2	1.1	3.38
BAC-3	17.57	7.34	-11	8.95	1.1	1.61	5.64
BAC-4	15.14	7.6	-57	2600	0	1.94	1.66
BAC-5	15.26	7.68	-62	2960	0	2.03	1.9
BAC-6	15.21	7.63	-44	3880	0	1.48	2.48
BAC-7	15.95	7.74	-71	4210	0	1.37	2.7
BAC-8	17.34	7.98	-91	1490	3.9	1.21	0.954
BAC-9	16.49	8.02	-69	1460	1.6	0.96	0.937
BAC-10	17.35	8	-80	1500	2.9	0.94	0.963
Waste Water	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
SI-U-1	16.23	7.68	-37	3470	1.9	0.36	2.22
WW-U-1	16.64	7.24	-17	8020	0	0.41	5.05
WW-U-2	17.11	7.41	-8	7650	1.1	0.51	4.82
WWC-1	16.68	7.13	2	9830	0	1.37	6.19
WWC-2	15.94	8.03	-95	1550	2.9	1.56	0.989
WWC-3	16.07	8.01	-144	1310	0	2.09	0.841
WWC-4	15.29	7.38	-19	4910	0	1.4	3.14
WWC-5	15.41	7.16	-6	7900	0.5	1.67	4.98
WWC-6	15.12	7.59	-62	4040	1.6	0.72	2.59
WWC-7	14.7	8.01	-200	1120	7.6	2.26	0.718
WWC-8	17.02	7.76	-113	3990	22.2	1.66	2.55
WWC-9	16.66	7.89	-91	1.53	13	1.32	0.985
WWC-10	15.91	8.12	-152	1700	9.8	1.42	1.09

Round 13 (all results ppm) Assessment Monitoring - September 23 - October 15, 2019

Landfill Wells	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
CL-U-1	< 0.500	58.9	432	0.753	7.94	109	976	<0.00200	0.0289	0.0799	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.239	<0.000150	0.0035	<0.00200	<0.00200	0.03	0.75	0.75
CL-U-2	< 0.500	60.6	424	0.792	7.87	112	968	<0.00200	0.0251	0.0935	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.229	<0.000150	0.00412	<0.00200	<0.00200	0.03	0.57	0.6
CLW-1	< 0.500	36	328	1.11	8.03	69.1	852	<0.00200	0.0295	0.0612	<0.00200	<0.000500	0.00742	<0.00400	<0.00200	0.187	<0.000150	0.00357	<0.00200	<0.00200	0.29	0.38	0.67
CLW-2	< 0.500	50.8	438	1.13	8.15	88.1	924	<0.00200	0.0283	0.1510	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.253	<0.000150	0.0102	<0.00200	<0.00200	0.08	0.56	0.64
CLW-3	< 0.500	47	363	1.24	7.99	90.8	828	<0.00200	0.039	0.0976	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.242	<0.000150	0.00504	<0.00200	<0.00200	0.6	0.43	1.03
CLW-4	< 0.500	34.6	332	1.55	7.97	75.6	768	<0.00200	0.0387	0.0797	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.235	<0.000150	0.00441	<0.00200	<0.00200	0.22	1.06	1.06
CLW-5	< 0.500	37.5	351	1.89	8	76.9	1060	<0.00200	0.0231	0.0685	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.237	<0.000150	0.00479	<0.00200	<0.00200	0.25	0.44	0.69
CLW-6	< 0.500	34.5	330	1.7	7.98	74.4	1110	<0.00200	0.0145	0.0936	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.239	<0.000150	0.00607	<0.00200	<0.00200	0.42	1.05	1.47
CLW-7	< 0.500	43.7	362	1	7.89	71.4	796	<0.00200	0.0238	0.0523	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.192	<0.000150	0.00402	<0.00200	<0.00200	0.12	-0.03	0.09
CLW-8	< 0.500	39.9	337	1.04	7.98	70.7	836	<0.00200	0.0266	0.0521	<0.00200	<0.000500	0.00000	<0.00400	<0.00200	0.196	<0.000150	0.00449	<0.00200	<0.00200	-0.05	0.32	0.27
CLW-9	< 0.500	26.9	288	1.94	8.12	88.7	792	<0.00200	0.0398	0.0469	<0.00200	<0.000500	0.00287	<0.00400	<0.00200	0.181	<0.000150	0.00573	<0.00200	<0.00200	0.36	0.02	0.38
CL-U-3	< 0.500	64.6	304	0.429	8.85	168	596	<0.00200		0.0342	<0.00200	<0.000500	0.0738	<0.00400	<0.00200	0.152	<0.000150	0.00964	<0.00200	<0.00200	2.13	0.21	2.13

Bottom Ash	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
BA-U-1	< 0.500	173	1140	0.587	7.71	314	2290	<0.00200	0.0223	0.0770	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.385	<0.000150	0.00302	0.00502	<0.00200	0.16	0.73	0.73
BA-U-2	< 0.500	47.1	400	0.893	8.18	56.6	972	<0.00200	0.0283	0.1270	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.247	<0.000150	0.00332	<0.00200	<0.00200	0.26	0.7	0.96
BAC-1	1.43	93.7	801	0.307	8.16	701	2730	<0.00200	0.0126	0.0460	<0.00200	<0.000500	0.00163	<0.00400	<0.00200	0.259	<0.000150	0.128	0.00436	<0.00200	0	0.14	0.14
BAC-2	9.49	208	1730	1.07	7.45	2760	7240	<0.00200	0.0647	0.0192	<0.00200	<0.000500	0.0058	<0.00400	<0.00200	0.466	0.00028	0.19	0.0145	<0.00200	0.12	0.39	0.51
BAC-3	7.32	441	3500	0.675	7.49	4310	13900	0.0027	0.0356	0.0321	<0.00200	<0.000500	0.00449	<0.00400	<0.00200	0.957	<0.000150	0.0255	0.0236	<0.00200	0	0.45	0.45
BAC-4	0.606	66.7	573	1.13	7.95	330	1820	<0.00200	0.0322	0.0637	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.279	<0.000150	0.0218	<0.00200	<0.00200	0.15	0.16	0.31
BAC-5	< 0.500	66.2	568	1.11	8.07	250	1410	<0.00200	0.0321	0.0814	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.289	<0.000150	0.00941	<0.00200	<0.00200	0.25	0.36	0.61
BAC-6	2.66	119	625	0.796	7.86	646	1870	<0.00200	0.0223	0.0338	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.288	<0.000150	0.0651	0.00273	<0.00200	0.31	0.83	1.14
BAC-7	5.06	107	566	1.31	7.96	1170	2320	<0.00200	0.0314	0.0174	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.248	<0.000150	0.0887	0.00276	<0.00200	0.04	0.22	0.26
BAC-8	< 0.500	23.2	280	1.53	8.05	95.5	784	<0.00200	0.0639	0.0389	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.156	<0.000150	0.00545	<0.00200	<0.00200	0.03	1.21	1.21
BAC-9	< 0.500	27.1	299	1.45	8.06	87.6	788	<0.00200	0.0593	0.0388	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.16	<0.000150	0.00483	<0.00200	<0.00200	0.09	0	0.53
BAC-10	< 0.500	25.7	280	1.51	8.09	87.4	808	<0.00200	0.0595	0.045	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.16	<0.000150	0.00584	<0.00200	<0.00200	0.8	1	1.8

Waste Water	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
SI-U-1	< 0.500	136	824	0.38	7.71	281	1850	<0.00200	0.00981	0.0599	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.277	<0.000150	<0.00200	<0.00200	<0.00200	0.19	1.61	1.61
WW-U-1	1.41	311	1010	<0.100	7.37	588	5720	<0.00200	0.00594	0.0419	<0.00200	<0.000500	0.00166	<0.00400	<0.00200	0.485	<0.000150	0.00689	0.0077	<0.00200	-0.08	1.42	1.42
WW-U-2	1.02	346	2020	<0.100	7.3	855	4400	<0.00200	0.00735	0.0499	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.54	<0.000150	0.00317	0.011	<0.00200	-0.2	1.36	1.36
WWC-1	13.2	473	4940	0.292	7.42	3570	14900	<0.00200	0.0264	0.0205	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.974	0.000278	0.0113	0.016	<0.00200	0.23	0.9	0.9
WWC-2	< 0.500	57.6	349	0.427	7.99	141	876	<0.00200	0.0166	0.0336	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.126	<0.000150	0.00327	<0.00200	<0.00200	-0.15	0.81	0.81
WWC-3	< 0.500	33.3	262	0.986	8.13	95.3	776	<0.00200	0.0236	0.0331	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.151	<0.000150	0.00477	<0.00200	<0.00200	3.1	0.58	3.1
WWC-4	1.06	176	968	0.453	7.61	594	3080	<0.00200	0.0154	0.0456	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.329	<0.000150	<0.00200	0.00177	<0.00200	0.72	0.57	1.29
WWC-5	2.11	344	1530	0.448	7.39	1290	4740	<0.00200	0.0154	0.0382	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.538	<0.000150	0.00256	0.00596	<0.00200	0.26	1.05	1.05
WWC-6	0.548	125	855	0.23	7.66	451	2340	<0.00200	0.0138	0.0852	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.204	<0.000150	0.00595	<0.00200	<0.00200	0.034	0.41	0.444
WWC-7	< 0.500	46.7	186	0.418	8.12	129	652	<0.00200	0.0187	0.0316	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.000150	0.00414	<0.00200	<0.00200	0.14	0.21	0.35
WWC-8	0.803	144	1230	0.353	7.7	579	3670	<0.00200	0.0145	0.0627	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.246	<0.000150	0.00284	0.00422	<0.00200	0.05	0.42	0.47
WWC-9	< 0.500	47.1	309	0.909	8.04	107	780	<0.00200	0.0309	0.0643	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.153	<0.000150	0.00351	<0.00200	<0.00200	0.14	0.05	0.19
WWC-10	< 0.500	54.4	380	0.629	8.02	177	988	<0.00200	0.0289	0.0347	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.125	<0.000150	0.00932	<0.00200	<0.00200	0.03	0.14	0.17

Date Oct. 2018

Round 13

Landfill Wells	Field Results						
	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS
CL-U-1	15.85	7.75	-159	777	0	1.62	0.497
CL-U-2	15.96	7.7	-158	743	0	1.01	0.476
CLW-1	15.83	7.73	-48	1480	1.3	2.01	0.948
CLW-2	16.6	7.79	-191	760	0	2	0.488
CLW-3	17.14	7.84	-215	1730	0.5	1.43	1.11
CLW-4	16.47	7.88	-233	1600	2.7	1.61	1.03
CLW-5	17.05	7.83	-220	1700	1.9	1.84	1.09
CLW-6	16.65	7.7	-229	1590	1.6	2.69	1.02
CLW-7	17.74	7.76	-57	1580	0.6	1.24	1.01
CLW-8	16.37	7.81	-36	1520	1	1.51	0.969
CLW-9	16.03	7.72	-299	1610	0.2	7.56	1.03
CL-U-3	16.1	9.08	-76	503	0	1.84	0.322

Round 14 (all results ppm) Assessment Monitoring - March 25 - April 9, 2020																									
Landfill Wells	Results																								
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined		
CL-U-1	< 0.500	57.6	429	0.979	7.70	122	916	<0.00200	0.0310	0.0800	<0.00200	<0.000500	0.00551	<0.00400	<0.00200	0.241	<0.000150	0.00505	<0.00200	<0.00200	0.36	0.93	1.29	1.29	
CL-U-2	< 0.500	60.0	408	1.01	7.68	118	964	<0.00200	0.0266	0.0901	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.221	<0.000150	0.00404	<0.00200	<0.00200	0.09	1.23	1.23	1.23	
CLW-1	< 0.500	36.6	304	0.979	7.91	61.0	856	<0.00200	0.0300	0.0612	<0.00200	<0.000500	0.00551	<0.00400	<0.00200	0.172	<0.000150	0.00527	<0.00200	<0.00200	0.25	0.12	0	0	
CLW-2	< 0.500	47.0	418	1.23	7.84	86.0	992	<0.00200	0.0258	0.0770	<0.00200	<0.000500	0.00337	<0.00400	<0.00200	0.212	0.000278	0.00556	<0.00200	<0.00200	0.03	0.54	0	0	
CLW-3	< 0.500	39.4	361	1.27	7.88	101	488	<0.00200	0.0387	0.0991	<0.00200	<0.000500	0.00251	<0.00400	<0.00200	0.206	<0.000150	0.00560	<0.00200	<0.00200	0.20	-0.04	0	0	
CLW-4	< 0.500	33.6	323	1.34	7.88	85.5	960	<0.00200	0.0381	0.0822	<0.00200	<0.000500	0.00245	<0.00400	<0.00200	0.204	<0.000150	0.00508	<0.00200	<0.00200	-0.03	0.47	0	0	
CLW-5	< 0.500	34.5	340	1.58	7.86	83.9	800	<0.00200	0.0227	0.0737	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.198	<0.000150	0.00585	<0.00200	<0.00200	0.15	0.62	0	0	
CLW-6	< 0.500	33.0	312	1.48	7.94	81.2	544	<0.00200	0.0225	0.0878	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.203	<0.000150	0.00540	<0.00200	<0.00200	0.43	-0.06	0	0	
CLW-7	< 0.500	44.3	329	1.03	7.79	60.5	1020	<0.00200	0.0242	0.0526	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.180	<0.000150	0.00392	<0.00200	<0.00200	0.20	-0.08	0	0	
CLW-8	< 0.500	40.8	316	1.03	7.86	63.7	880	<0.00200	0.0267	0.0634	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.182	<0.000150	0.00400	<0.00200	<0.00200	0.12	0.12	0	0	
CLW-9	< 0.500	25.2	296	1.90	7.96	83.5	932	<0.00200	0.0402	0.0499	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.170	<0.000150	0.00597	<0.00200	<0.00200	0.15	0.32	0	0	
CL-U-3	< 0.500	57.7	386	0.889	7.75	116	1090	<0.00200	0.0206	0.0478	<0.00200	<0.000500	0.00553	<0.00400	<0.00200	0.205	<0.000150	0.00467	<0.00200	<0.00200	-0.06	0.95	0.95	0.95	

Bottom Ash	Results																							Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
BA-U-1	< 0.500	188	1090	0.817	7.50	367	3050	<0.00200	0.0226	0.0774	<0.00200	<0.000500	0.0711	<0.00400	<0.00200	0.375	<0.000150	0.0152	0.00519	<0.00200	0.28	1.20	1.2			
BA-U-2	< 0.500	2.47	395	0.912	10.70	42.7	872	<0.00200	0.00683	0.0804	<0.00200	<0.000500	0.00611	<0.00400	<0.00200	0.327	<0.000150	0.00629	<0.00200	<0.00200	-0.03	0.70	0			
BAC-1	3.00	239	1890	0.645	7.39	1300	5270	<0.00200	0.0154	0.0340	<0.00200	<0.000500	0.00219	<0.00400	<0.00200	0.547	<0.000150	0.0170	0.00791	<0.00200	0.09	0.83	0.83			
BAC-2	8.38	210	1710	1.16	7.27	2440	6380	<0.00200	0.0609	0.0206	<0.00200	<0.000500	0.00986	<0.00400	<0.00200	0.431	0.000192	0.172	0.0128	<0.00200	0.33	1.21	1.21			
BAC-3	7.47	447	3620	1.26	7.21	4380	12500	<0.00200	0.0321	0.0284	<0.00200	<0.000500	0.0150	<0.00400	<0.00200	0.913	<0.000150	0.0251	0.0204	<0.00200	0.16	0.51	0			
BAC-4	0.613	70.5	541	1.09	7.89	295	1540	<0.00200	0.0330	0.0649	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.272	<0.000150	0.0211	<0.00200	<0.00200	-0.06	0.17	0			
BAC-5	0.547	83.5	552	0.991	7.79	416	1760	<0.00200	0.0297	0.0560	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.306	<0.000150	0.0242	<0.00200	<0.00200	0.03	0.22	0			
BAC-6	4.02	115	560	0.847	7.74	1020	2340	<0.00200	0.0255	0.0215	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.242	0.000278	0.0805	<0.00200	<0.00200	0.14	0.52	0			
BAC-7	5.48	92.6	532	1.48	7.91	1090	2400	<0.00200	0.0350	0.0168	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.218	<0.000150	0.0805	0.00202	<0.00200	0.21	0.25	0			
BAC-8	< 0.500	25.4	264	1.61	7.97	84.4	784	<0.00200	0.0596	0.0370	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.183	<0.000150	0.00581	<0.00200	<0.00200	0	0.16	0			
BAC-9	< 0.500	31.4	305	1.47	7.94	77.5	824	<0.00200	0.0488	0.0400	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.185	<0.000150	0.00487	<0.00200	<0.00200	0.09	0.29	0			
BAC-10	0.571	26.1	278	1.62	7.95	84.0	804	<0.00200	0.0531	0.0381	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.171	<0.000150	0.00617	<0.00200	<0.00200	0.22	0.19	0			
BAC-11	< 0.500	84.4	676	0.984	7.71	147	1100	<0.00200	0.0312	0.1160	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.244	<0.000150	0.00345	<0.00200	<0.00200	0.36	0.09	0			
BAC-12	< 0.500	25.9	210	1.24	7.99	71.7	360	<0.00200	0.0423	0.0938	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.132	<0.000150	0.00479	<0.00200	<0.00200	0.23	0.18	0			
BAC-13	0.604	115	929	0.957	7.50	276	46400	<0.00200	0.0329	0.0773	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.285	<0.000150	0.00250	<0.00200	<0.00200	0.35	0.55	0			
BAC-14	0.565	158	940	0.972	7.53	432	1180	<0.00200	0.0359	0.0542	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.321	<0.000150	0.00222	<0.00200	<0.00200	0.03	0.08	0			
BAC-15	< 0.500	26.2	263	1.75	8.01	78.9	600	<0.00200	0.0539	0.0395	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.172	<0.000150	0.00827	<0.00200	<0.00200	0.08	0.18	0			
BAC-16	< 0.500	24.2	304	1.89	8.15	77.8	900	<0.00200	0.0783	0.0346	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.183	<0.000150	0.00732	<0.00200	<0.00200	0.20	0.22	0			
Waste Water	Results																							Radium 226 and 228 combined		
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228				
SI-U-1	< 0.500	113	699	0.511	7.70	279	1230	<0.00200	0.00865	0.0609	<0.00200	<0.000500	0.00305	<0.00400	<0.00200	0.239	<0.000150	0.00280	<0.00200	<0.00200	0.20	1.04	1.04			
WW-U-1	1.42	286	1940	0.324	7.24	1270	4740	<0.00200	0.00653	0.0391	<0.00200	<0.000500	0.00544	<0.00400	<0.00200	0.412	<0.000150	0.00811	0.00724	<0.00200	0.21	1.38	1.38			
WW-U-2	1.23	337	2020	0.473	7.42	981	4020	<0.00200	0.0108	0.0502	<0.00200	<0.000500	0.00696	<0.00400	<0.00200	0.498	<0.000150	0.00309	0.0112	<0.00200	0	1.08	1.08			
WWC-1	13.4	464	4800	<0.100	7.29	3440	13000	<0.00200	0.0256	0.0207	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.936	0.000238	0.0136	0.0133	<0.00200	0.32	0.36	0			
WWC-2	< 0.500	51.7	322	0.452	7.88	124	644	<0.00200	0.0159	0.0357	<0.00200	<0.000500	0.00332	<0.00400	<0.00200	0.119	<0.000150	0.00455	<0.00200	<0.00200	0.24	-0.15	0			
WWC-3	< 0.500	31.8	254	1.06	7.96	85.8	712	<0.00200	0.0219	0.0304	<0.00200	<0.000500	0.00240	<0.00400	<0.00200	0.142	<0.000150	0.00536	<0.00200	<0.00200	-0.08	0.19	0			
WWC-4	1.20	182	935	0.426	7.44	638	2730	<0.00200	0.0140	0.0437	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.314	<0.000150	0.00207	0.00228	<0.00200	0.47	0.27	0			
WWC-5	2.23	322	1580	0.295	7.15	1340	4670	<0.00200	0.0144	0.0367	<0.00200	<0.000500	0.00432	<0.00400	<0.00200	0.487	0.000278	0.00283	0.00560	<0.00200	0.04	0.96	0.96			
WWC-6	0.589	154	925	0.175	7.55	480	2490	<0.00200	0.0140	0.0925	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.213	<0.000150	0.00566	<0.00200	<0.00200	0.60	0.13	0			
WWC-7	< 0.500	41.0	186	0.357	7.96	122	596	<0.00200	0.0194	0.0297	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.000150	0.0044	<0.00200	<0.00200	0.11	0.17	0			
WWC-8	0.652	154	1040	0.473	7.58	593	2700	<0.00200	0.0155	0.0564	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.229	<0.000150	0.00322	0.00385	<0.00200	0.18	0.18	0			
WWC-9	< 0.500	40.5	302	0.843	7.99	98.8	652	<0.00200	0.0305	0.0629	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.147	<0.000150	0.00350	<0.00200	<0.00200	0.13	0.09	0			
WWC-10	< 0.500	55.2	369	0.491	7.85	164	804	<0.00200	0.0240	0.0361	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.107	<0.000150	0.00656	<0.00200	<0.00200	0.03	0.40	0			
WWC-11	< 0.500	34.9	197	0.467	8.64	97.8	280	<0.00200	0.00470	0.150	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.000150	0.00718	<0.00200	<0.00200	0.21	0.48	0			
WWC-12	< 0.500	77.1	382	0.453	8.85	143	320	<0.00200	0.0428	0.0761	<0.00200	<0.000500	0.00414	<0.00400	<0.00200	0.111	<0.000150	0.00423	<0.00200	<0.00200	0.03	0.42	0			
WWC-13	< 0.500	66.4	350	0.389	7.94	138	360	<0.00200	0.0207	0.0450	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.103	<0.000150	0.00382	<0.00200	<0.00200	0.15	0.24	0			
Date	Oct. 2018																									

Landfill Wells	Round 15																						
	Results																						
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined
CL-U-1	< 0.500	56.7	423	1.23	8.02	118	1050	<0.00400	0.0367	0.0866	<0.00200	<0.000500	0.00537	<0.00400	<0.00200	0.227	<0.000150	0.00422	<0.00200	<0.00200	0.73 +/- 0.46	0.54 +/- 0.42	0
CL-U-2	< 0.500	59.3	408	1.09	7.98	123	1600	<0.00400	0.0278	0.0991	<0.00200	<0.000500	0.00613	<0.00400	<0.00200	0.21	<0.000150	0.00461	<0.00200	<0.00200	0.03 +/- 0.15	0.81 +/- 0.44	0.81
CLW-1	< 0.500	34.8	305	1.15	8.06	64.4	972	<0.00400	0.0340	0.0640	<0.00200	<0.000500	0.00814	<0.00400	<0.00200	0.183	<0.000150	0.00407	<0.00200	<0.00200	0.14 +/- 0.16	0.61 +/- 0.36	0
CLW-2	< 0.500	44.4	432	1.26	8.10	95.5	1040	<0.00400	0.0299	0.0825	<0.00200	<0.000500	0.00576	<0.00400	<0.00200	0.218	<0.000150	0.00482	<0.00200	<0.00200	0.10 +/- 0.11	0.66 +/- 0.39	0
CLW-3	< 0.500	37.1	356	1.57	8.04	103	904	<0.00400	0.0426	0.1040	<0.00200	<0.000500	0.00346	<0.00400	<0.00200	0.208	<0.000150	0.00554	<0.00200	<0.00200	0.31 +/- 0.21	1.71 +/- 0.58	2.02
CLW-4	< 0.500	30.8	316	1.69	8.14	85.8	844	<0.00400	0.0444	0.0837	<0.00200	<0.000500	0.00336	<0.00400	<0.00200	0.203	<0.000150	0.00519	<0.00200	<0.00200	0.15 +/- 0.21	0.52 +/- 0.36	0
CLW-5	< 0.500	32.6	345	2.03	8.11	88.5	952	<0.00400	0.0253	0.0740	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.202	<0.000150	0.00503	<0.00200	<0.00200	-0.05 +/- 0.23	1.07 +/- 0.49	1.07
CLW-6	< 0.500	30.7	320	1.84	8.13	83.5	884	<0.00400	0.0173	0.0985	<0.00200	<0.000500	0.00335	<0.00400	<0.00200	0.197	<0.000150	0.00645	<0.00200	<0.00200	0.04 +/- 0.17	0.76 +/- 0.43	0
CLW-7	< 0.500	41.7	338	1.24	8.04	70.4	880	<0.00400	0.0270	0.0558	<0.00200	<0.000500	0.00421	<0.00400	<0.00200	0.185	<0.000150	0.00348	<0.00200	<0.00200	0.09 +/- 0.13	0.66 +/- 0.42	0
CLW-8	< 0.500	38.4	315	1.13	7.99	68.3	872	<0.00400	0.0297	0.0666	<0.00200	<0.000500	0.00463	<0.00400	<0.00200	0.185	<0.000150	0.00377	<0.00200	<0.00200	0.26 +/- 0.18	0.75 +/- 0.42	0
CLW-9	2	36.1	287	1.37	8.09	80.7	832	<0.00400	0.0411	0.0489	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	1.230	<0.000150	0.0059	<0.00200	<0.00200	0.16 +/- 0.24	0.51 +/- 0.39	0
CL-U-3	< 0.500	56.3	374	1.08	7.89	115	1080	<0.00400	0.0202	0.0509	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.223	<0.000150	0.00351	<0.00200	<0.00200	0.10 +/- 0.20	1.10 +/- 0.46	1.1

Bottom Ash	Results																							
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	
BA-U-1	< 0.500	209	1220	1.1	7.59	510	2660	<0.00400	0.0223	0.0668	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.44	<0.0009900	0.00274	0.00518	<0.00200	0.10 +/- 0.17	1.28 +/- 0.49	1.28	
BA-U-2	< 0.500	86.8	691	0.844	7.62	86.3	1780	<0.00400	0.0222	0.1470	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.321	<0.0009900	0	0.00227	<0.00200	0.13 +/- 0.15	0.88 +/- 0.42	0.88	
BAC-1	2.28	177	1240	0.687	7.16	1010	3510	<0.00400	0.2	0.0528	<0.00200	<0.000500	0.00365	<0.00400	<0.00200	0.34	<0.0009900	0.0979	0.00798	<0.00200	0.08 +/- 0.12	1.00 +/- 0.46	1	
BAC-2	7.08	205	1840	1.2	7.27	2670	6940	<0.00400	0.0632	0.0230	<0.00200	<0.000500	0.00573	<0.00400	<0.00200	0.436	<0.0009900	0.182	0.0137	<0.00200	0.02 +/- 0.16	1.27 +/- 0.50	1.27	
BAC-3	7.17	410	3790	1.56	7.25	4940	13800	<0.00400	0.0398	0.0300	<0.00200	<0.000500	0.0055	<0.00400	<0.00200	0.996	<0.0009900	0.0311	0.0222	<0.00200	0.02 +/- 0.11	0.83 +/- 0.44	0.83	
BAC-4	0.913	70.2	506	1.33	8.01	327	3500	<0.00400	0.0342	0.0656	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.29	<0.0009900	0.0262	<0.00200	<0.00200	-0.06 +/- 0.15	0.56 +/- 0.38	0	
BAC-5	0.677	83.7	552	1.2	7.99	451	1030	<0.00400	0.0322	0.0556	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.329	<0.0009900	0.0276	<0.00200	<0.00200	0.07 +/- 0.15	0.60 +/- 0.41	0	
BAC-6	4.26	115	507	1.09	7.88	958	1480	<0.00400	0.0270	0.0187	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.26	<0.0009900	0.0772	<0.00200	<0.00200	0.12 +/- 0.15	0.70 +/- 0.40	0	
BAC-7	6.05	90.1	560	2.28	8.05	1110	2220	<0.00400	0.0418	0.0192	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.236	<0.0009900	0.0691	0.00239	<0.00200	0.21 +/- 0.17	1.21 +/- 0.47	1.42	
BAC-8	< 0.500	24.1	254	1.63	7.99	91.9	724	<0.00400	0.0619	0.0368	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.154	<0.0009900	0.00644	<0.00200	<0.00200	0.04 +/- 0.16	1.16 +/- 0.47	1.16	
BAC-9	< 0.500	30.6	298	1.44	7.95	100	744	<0.00400	0.0504	0.0427	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.16	<0.0009900	0.0045	<0.00200	<0.00200	-0.06 +/- 0.21	0.63 +/- 0.44	0	
BAC-10	< 0.500	25.6	256	1.63	7.99	82.6	836	<0.00400	0.0559	0.0373	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.154	<0.0009900	0.00581	<0.00200	<0.00200	0 +/- 0.18	0.01 +/- 0.33	0	
BAC-11	< 0.500	78.6	742	1.17	7.76	168	1490	<0.00400	0.0338	0.1270	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.237	<0.0009900	0.00314	<0.00200	<0.00200	0.13 +/- 0.18	0.61 +/- 0.40	0	
BAC-12	< 0.500	30.9	291	1.45	7.92	77.8	832	<0.00400	0.0474	0.0983	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.15	<0.0009900	0.00454	<0.00200	<0.00200	-0.06 +/- 0.14	0.28 +/- 0.34	0	
BAC-13	0.613	111	973	1.1	7.62	326	1980	<0.00400	0.0351	0.0613	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.278	<0.0009900	<0.00200	<0.00200	<0.00200	0 +/- 0.099	0.90 +/- 0.43	0.9	
BAC-14	0.55	147	1040	1.05	7.50	465	2540	<0.00400	0.0313	0.0519	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.331	<0.0009900	0	<0.00200	<0.00200	0.19 +/- 0.20	0.47 +/- 0.35	0	
BAC-15	< 0.500	25.5	248	1.76	7.89	79.5	720	<0.00400	0.0573	0.0399	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.147	<0.0009900	0.00707	<0.00200	<0.00200	0.04 +/- 0.18	0.30 +/- 0.35	0	
BAC-16	< 0.500	23.1	477	1.88	8.00	206	730	<0.00400	0.0847	0.0354	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.167	<0.0009900	0.00651	<0.00200	<0.00200	0.04 +/- 0.16	0.70 +/- 0.42	0	
BAC-17	< 0.500	24.1	123	0.799	8.16	99.6	400	<0.00400	0.0321	0.0316	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.0009900	0.00421	<0.00200	<0.00200	0 +/- 0.12	0.47 +/- 0.35	0	
BAC-18	< 0.500	23.8	177	1.38	8.05	88.3	672	<0.00400	0.044	0.0618	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.109	<0.0009900	0.00544	<0.00200	<0.00200	0.04 +/- 0.22	0.36 +/- 0.36	0	
BAC-19	< 0.500	28.4	238	1.27	7.93	86.7	768	<0.00400	0.0436	0.0471	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.124	<0.0009900	0.00432	<0.00200	<0.00200	0.06 +/- 0.31	0.46 +/- 0.37	0	
BAC-20	< 0.500	26	178	1.12	8.08	88.2	720	<0.00400	0.0373	0.0604	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	<0.100	<0.0009900	0.00452	<0.00200	<0.00200	-0.06 +/- 0.16	0.92 +/- 0.43	0.92	
BAC-21	< 0.500	29.1	233	1.3	8.04	81.5	776	<0.00400	0.0431	0.0822	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.128	<0.0009900	0.00429	<0.00200	<0.00200	0.05 +/- 0.25	0.81 +/- 0.40	0.81	
BAC-22	< 0.500	27.7	221	1.34	7.97	93	780	<0.00400	0.0487	0.0344	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.13	<0.0009900	0.0047	<0.00200	<0.00200	0.16 +/- 0.17	2.03 +/- 0.66	2.03	
BAC-23	< 0.500	29.2	226	1.24	7.95	89.9	628	<0.00400	0.0414	0.0430	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.117	<0.0009900	0.00419	<0.00200	<0.00200	0 +/- 0.17	2.48 +/- 0.75	2.48	
BAC-24	< 0.500	28.9	260	1.52	7.89	79.3	724	<0.00400	0.0511	0.0642	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.15	<0.0009900	0.00415	<0.00200	<0.00200	-0.07 +/- 0.18	1.61 +/- 0.58	1.61	
BAC-25	< 0.500	28	193	1.17	7.86	75.1	636	<0.00400	0.0335	0.1070	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.112	<0.0009900	0.00466	<0.00200	<0.00200	-0.15 +/- 0.25	1.91 +/- 0.64	1.91	
BAC-26	< 0.500	20.8	200	1.89	7.97	64.5	628	<0.00400	0.0534	0.0777	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.131	<0.0009900	0.00494	<0.00200	<0.00200	0.12 +/- 0.17	1.15 +/- 0.48	1.15	
BAC-27	< 0.500	25	266	1.68	7.93	65.6	864	<0.00400	0.0508	0.0790	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.152	<0.0009900	0.00514	<0.00200	<0.00200	-0.06 +/- 0.25	0.91 +/- 0.43	0.91	
BAC-28	< 0.500	26.2	270	1.56	7.92	63.7	816	<0.00400	0.0487	0.0791	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.161	<0.0009900	0.00477	<0.00200	<0.00200	-0.04 +/- 0.32	1.72 +/- 0.59	1.72	
BAC-29	< 0.500	62.3	581	1.22	7.74	145	1550	<0.00400	0.0351	0.0729	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.234	<0.0009900	0.00346	<0.00200	<0.00200	-0.03 +/- 0.13	1.24 +/- 0.50	1.24	
BAC-30	< 0.500	57.3	553	1.21	7.78	134	1300	<0.00400	0.0385	0.0844	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.218	<0.0009900	0.00396	<0.00200	<0.00200	0.03 +/- 0.14	1.30 +/- 0.53	1.3	
BAC-31	< 0.500	45.1	448	1.31	7.80	101	920	<0.00400	0.0397	0.0824	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.193	<0.0009900	0.0043	<0.00200	<0.00200	0 +/- 0.26	1.52 +/- 0.54	1.52	
BAC-32	< 0.500	24.2	242	1.64	7.99	59.2	768	<0.00400	0.0461	0.0926	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.155	<0.0009900	0.00539	<0.00200	<0.00200	0.03 +/- 0.16	0.92 +/- 0.42	0.92	
BAC-33	< 0.500	26.4	265	1.6	7.90	69.5	812	<0.00400	0.0509	0.1080	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.154	<0.0009900	0.00728	<0.00200	<0.00200	0.10 +/- 0.24	1.05 +/- 0.44	1.05	
BAC-34	< 0.500	20.9	209	1.7	8.05	60.9	744	<0.00400	0.0542	0.0678	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.144	<0.0009900	0.00476	<0.00200	<0.00200	0.23 +/- 0.22	1.22 +/- 0.50	1.22	
BAC-35	< 0.500	23.5	234	1.66	8.00	69.4	724	<0.00400	0.0556	0.0744	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.151	<0.0009900	0.00509	<0.00200	<0.00200	0.32 +/- 0.24	1.15 +/- 0.48	1.47	
BAC-36	< 0.500	25.5	198	1.28	8.10	90.4	688	<0.00400	0.041	0.0810	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.109	<0.0009900	0.00502	<0.00200	<0.00200	0.25 +/- 0.21	0.33 +/- 0.33	0	
BAC-37	< 0.500	24.4	176	1.27	8.04	89.5	668	<0.00400	0.0423	0.0541	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.103	<0.0009900	0.00511	<0.00200	<0.00200	-0.06 +/- 0.15	1.22 +/- 0.48	1.22	
BAC-38	< 0.500	30.1	247	1.29	8.06	87.4	844	<0.00400	0.0361	0.0653	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.124	<0.0009900	0.00523	<0.00200	<0.00200	-0.03 +/- 0.16	1.12 +/- 0.48	1.12	

Landfill Wells	Round 16																							Field Results							
	Results																														
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined								
CL-U-1	<0.500	54.0	435	1.07	7.69	123	932	<0.00400	0.0319	0.0856	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.209	<0.000900	0.00352	<0.00200	<0.00200	0.14	0.84	0.84	CL-U-1	14.83	7.52	-134	1940	2.2	0.19	1.24
CL-U-2	<0.500	57.3	411	1.09	7.73	121	480	<0.00400	0.0271	0.0998	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.198	<0.000900	0.00401	<0.00200	<0.00200	0.09	0.79	0.79	CL-U-2	15	7.47	-121	1880	1.5	3.16	1.20
CLW-1	<0.500	34.7	301	1.11	8.73	62.4	892	<0.00400	0.0307	0.0622	<0.00200	<0.000500	0.00299	<0.00400	<0.00200	0.178	<0.000900	0.00405	<0.00200	<0.00200	0.29	0.42	0	CLW-1	16.40	7.13	-66	1500	0.4	1.38	0.96
CLW-2	<0.500	45.8	456	1.29	7.75	99.7	1060	<0.00400	0.0275	0.0837	<0.00200	<0.000500	0.00224	<0.00400	<0.00200	0.218	<0.000900	0.00477	<0.00200	<0.00200	-0.03	0.81	0.81	CLW-2	15.54	7.53	-172	1920	1.1	1.50	1.23
CLW-3	<0.500	37.5	377	1.43	7.81	104	952	<0.00400	0.0402	0.1040	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.203	<0.000900	0.00533	<0.00200	<0.00200	0.24	0.41	0	CLW-3	15.65	7.56	-194	1710	2.6	0.37	1.10
CLW-4	<0.500	33.3	341	1.45	7.85	90.7	688	<0.00400	0.0404	0.0833	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.197	<0.000900	0.00457	<0.00200	<0.00200	0.18	0.86	0.86	CLW-4	15.61	7.57	-174	1620	2.5	0.28	1.04
CLW-5	<0.500	33.7	358	1.91	7.87	88.9	944	<0.00400	0.0242	0.0745	<0.00200	<0.000500	0.00297	<0.00400	<0.00200	0.197	<0.000900	0.00490	<0.00200	<0.00200	0.23	0.66	0	CLW-5	15.13	7.5	-210	1720	7.5	0.25	1.10
CLW-6	<0.500	31.9	342	1.56	7.92	91.1	1010	<0.00400	0.0324	0.0866	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.190	<0.000900	0.00435	<0.00200	<0.00200	0.34	0.54	0	CLW-6	14.82	7.36	-222	1620	0.5	0.40	1.04
CLW-7	<0.500	41.0	335	1.07	8.18	66.1	376	<0.00400	0.0247	0.0532	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.185	<0.000900	0.00382	<0.00200	<0.00200	0.08	0.53	0	CLW-7	16.01	7.29	-78	1610	0.8	3.81	1.03
CLW-8	<0.500	38.8	315	1.08	8.33	66.9	840	<0.00400	0.0279	0.0679	<0.00200	<0.000500	0.00622	<0.00400	<0.00200	0.184	<0.000900	0.00389	<0.00200	<0.00200	0.3	0.67	0	CLW-8	15.98	7.24	-82	1530	7.2	0.64	0.98
CLW-9	0.332	24.9	288	1.87	8.01	87.3	856	<0.00400	0.0421	0.051	<0.00200	<0.000500	0.0156	<0.00400	<0.00200	0.160	<0.000900	0.00738	<0.00200	<0.00200	0.06	0.39	0	CLW-9	14.74	7.46	-248	1580	0.0	0.32	1.01
CL-U-3	<0.500	54.8	414	0.938	7.78	123	1080	<0.00400	0.0213	0.0511	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.197	<0.000900	0.00337	<0.00200	<0.00200	0.09	0.7	0	CL-U-3	15.40	7.5	-185	1840	1.5	0.21	1.18

Bottom Ash	Results																							Field Results							
	Results																														
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined								
BA-U-1	0.559	197	1240	0.945	7.49	557	2760	<0.00400	0.023	0.0660	<0.00200	<0.000500	0.00314	<0.00400	<0.00200	0.367	<0.000900	0.003	0.00599	<0.00200	-0.15	0.48	0	BA-U-1	15.51	7.31	-66	4760	1.6	0.3	3.04
BA-U-2	<0.500	84.9	809	0.851	7.68	99.1	1620	<0.00400	0.0222	0.1500	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.287	<0.000900	<0.00200	0.00253	<0.00200	0.22	1.09	1.09	BA-U-2	14.72	7.37	-140	2830	1.6	0.59	1.81
BAC-1	3.20	267	2020	0.928	7.44	1480	5900	<0.00400	0.0163	0.0402	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.542	<0.000900	0.011	0.00905	<0.00200	0.34	0.87	1.21	BAC-1	16.61	7.13	-23	8440	7.7	0.21	5.31
BAC-2	6.49	228	2070	1.37	7.42	2430	7140	<0.00400	0.0429	0.0213	<0.00200	<0.000500	0.00721	<0.00400	<0.00200	0.452	<0.000900	0.0129	0.012	<0.00200	-0.04	0.91	0.91	BAC-2	16.2	7.17	-12	9900	2.2	0.25	6.24
BAC-3	8.4	388	3890	1.9	7.46	5120	13800	<0.00400	0.0455	0.0285	<0.00200	<0.000500	0.00995	<0.00400	<0.00200	0.992	<0.000900	0.0344	0.0222	<0.00200	-0.05	1.21	1.21	BAC-3	15.67	7.13	-4	17100	3	1.46	10.6
BAC-4	0.735	66	545	1.15	7.98	335	1560	<0.00400	0.0322	0.0637	<0.00200	<0.000500	0.00266	<0.00400	<0.00200	0.265	<0.000900	0.0246	<0.00200	<0.00200	0.11	-0.07	0	BAC-4	15.12	7.3	-69	3680	0	0.26	1.72
BAC-5	0.685	79.6	555	1.05	7.88	488	1780	<0.00400	0.0303	0.0466	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.301	<0.000900	0.0325	<0.00200	<0.00200	0.08	0.32	0	BAC-5	14.99	7.43	-67	2970	0.6	2.24	1.9
BAC-6	4.15	97.8	519	0.98	7.76	941	2340	<0.00400	0.0268	0.0188	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.232	<0.000900	0.0701	<0.00200	<0.00200	0.08	0.53	0	BAC-6	15.15	7.47	-47	3570	1	0.18	2.29
BAC-7	5.66	97.9	636	1.94	7.77	1150	3210	<0.00400	0.0389	0.0196	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.235	<0.000900	0.0634	0.00299	<0.00200	-0.02	0.42	0	BAC-7	16.13	7.69	-91	4200	1	0.17	2.69
BAC-8	0.332	25.3	265	1.53	7.99	91.7	872	<0.00400	0.0668	0.0402	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.157	<0.000900	0.0059	<0.00200	<0.00200	0.06	0.28	0	BAC-8	15.22	7.62	-5	1540	1.3	1.44	0.984
BAC-9	0.306	30.9	314	1.27	7.92	80.1	860	<0.00400	0.0546	0.0485	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.17	<0.000900	0.00565	<0.00200	<0.00200	0.078	0.40	0	BAC-9	15.90	7.39	21	1670	0.9	3.18	1.07
BAC-10	0.326	25.3	270	1.48	8.01	83.6	840	<0.00400	0.0588	0.0429	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.154	<0.000900	0.00656	<0.00200	<0.00200	0.086	0.15	0	BAC-10	14.99	7.52	36	1570	1.0	0.77	1
BAC-11	0.33	79.5	726	0.985	7.68	167	1560	<0.00400	0.0362	0.1340	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.272	<0.000900	0.00384	<0.00200	<0.00200	0.11	0.91	0.91	BAC-11	15.90	7.43	37	3020	4.0	3.37	1.94
BAC-12	0.27	25.5	212	1.25	7.96	74.6	688	<0.00400	0.0441	0.0684	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.13	<0.000900	0.00491	<0.00200	<0.00200	0.12	0.98	1.3	BAC-12	15.06	7.60	-13	1280	1.0	0.20	0.821
BAC-13	0.667	130	1090	0.962	7.60	433	2960	<0.00400	0.0356	0.0571	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.312	<0.000900	0.00201	<0.00200	<0.00200	0.05	0.66	0	BAC-13	14.99	7.28	-67	4390	0.6	2.57	2.81
BAC-14	0.587	160	1060	0.936	7.25	480	2470	<0.00400	0.0298	0.0494	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.344	<0.000900	0.00213	<0.00200	<0.00200	0.02	0.61	0	BAC-14	15.56	7.35	36	4290	0.0	1.45	2.75
BAC-15	0.307	25.1	258	1.69	7.86	84	1420	<0.00400	0.061	0.0419	<0.00200	<0.000500	<0.00200	<0.00400	<0.00200	0.145	<0.000900	0.00743	<0.00200	<0.00200	0.06	-0.14	0	BAC-15	15.36	7.58	-6	1530	2.8	3.04	0.98
BAC-16	0.32	23.8	312	1.84	8.0																										

Round 17																								Field Results									
Landfill Wells	Results																							Landfill Wells	Field Results								
	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined		Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS		
CL-U-1	0.287	59.0	421	0.939	7.93	121	956	<0.00400	0.0287	0.0847	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.249	<0.000900	0.00325	<0.00200	<0.00200	<0.00200	0.30	1.03	0	CL-U-1	14.68	7.5	-110	2050	1.4	0.25	1.31	
CL-U-2	0.279	60.4	402	0.979	7.77	120	924	<0.00400	0.0254	0.0943	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.224	<0.000900	0.00352	<0.00200	<0.00200	<0.00200	0.22	0.47	0	CL-U-2	14.97	7.46	-73	1970	1.4	2.81	1.26	
CLW-1	0.254	38.0	294	1.04	7.95	62.0	836	<0.00400	0.0308	0.0629	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.206	<0.000900	0.00344	<0.00200	<0.00200	<0.00200	0.14	0.56	0	CLW-1	16.16	7.41	-59	1550	0.0	0.41	0.99	
CLW-2	0.302	50.9	435	1.14	7.88	94.5	1050	<0.00400	0.0251	0.0809	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.258	<0.000900	0.00415	<0.00200	<0.00200	<0.00200	0.05	0.6	0	CLW-2	15.57	7.29	-145	2020	0.0	0.48	1.29	
CLW-3	0.322	40.7	352	1.25	7.90	98.8	876	<0.00400	0.0389	0.1010	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.24	<0.000900	0.00484	<0.00200	<0.00200	<0.00200	0.15	0.21	0	CLW-3	15.98	7.57	-211	1780	0.0	0.64	1.14	
CLW-4	0.308	36.7	322	1.38	7.99	84.9	916	<0.00400	0.0307	0.0818	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.227	<0.000900	0.0046	<0.00200	<0.00200	<0.00200	0.12	0.09	0	CLW-4	15.99	7.57	-98	1670	0.0	1.50	1.07	
CLW-5	0.367	35.8	340	1.73	8.00	86.5	860	<0.00400	0.0227	0.0705	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.228	<0.000900	0.00416	<0.00200	<0.00200	<0.00200	0.27	0.44	0	CLW-5	16.30	7.52	-209	1760	6.6	0.30	1.13	
CLW-6	0.313	33.6	315	1.49	7.99	84.6	800	<0.00400	0.0205	0.0924	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.224	<0.000900	0.00466	<0.00200	<0.00200	<0.00200	0.33	0.51	0	CLW-6	15.52	7.51	-219	1660	0.0	0.29	1.06	
CLW-7	0.25	46.1	337	1.01	7.85	67.8	808	<0.00400	0.0254	0.0544	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.210	<0.000900	0.00301	<0.00200	<0.00200	<0.00200	0.17	0.28	0	CLW-7	16.18	7.39	-48	1670	2.2	0.36	1.06	
CLW-8	0.252	41.4	310	1.03	7.93	67.5	808	<0.00400	0.0278	0.0625	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.201	<0.000900	0.00322	<0.00200	<0.00200	<0.00200	0.12	0.99	0.99	CLW-8	15.66	7.42	-29	1590	1.0	1.88	1.02	
CLW-9	0.359	27.8	280	1.84	7.96	84.3	892	<0.00400	0.0412	0.0479	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.177	<0.000900	0.00511	<0.00200	<0.00200	<0.00200	0.09	0.12	0	CLW-9	14.23	7.37	-309	1570	0.0	2.70	1	
CL-U-3	0.257	58.7	391	0.858	7.84	119	1020	<0.00400	0.0272	0.0485	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.223	<0.000900	0.00292	<0.00200	<0.00200	<0.00200	0	0.47	0	CL-U-3	15.65	7.2	-142	1870	0.0	0.46	1.20	
Bottom Ash		Results																							Field Results								
		Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226	Radium 228	Radium 226 and 228 combined	Temp	pH	REDOX	Conductance	Turbidity (NTUs)	DO	TDS		
BA-U-1	0.567	235	1280	0.772	7.68	637	2900	<0.00400	0.0209	0.0610	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.467	<0.000900	0.00219	0.00518	<0.00200	<0.00200	0.06	0.83	0	BA-U-1	15.15	7.25	-27	5320	1	0.65	3.38	
BA-U-2	0.339	91	735	0.798	7.80	81.2	1580	<0.00400	0.0212	0.1460	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.339	<0.000900	<0.00200	0.0026	<0.00200	<0.00200	0.09	0.76	0	BA-U-2	15.02	7.39	-110	2810	1.2	0.48	1.79	
BAC-1	2.68	296	1890	0.711	7.24	1400	5160	<0.00400	0.0178	0.0411	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.669	<0.000900	0.0112	0.00692	<0.00200	<0.00200	0.13	0.98	0.98	BAC-1	17.23	6.93	138	8260	4.6	6.37	5.21	
BAC-2	6.34	250	1940	1.38	7.69	2380	7080	<0.00400	0.0435	0.0225	<0.00200	<0.00500	0.00499	<0.00400	<0.00200	0.632	<0.000900	0.128	0.128	<0.00200	<0.00200	0.16	1.17	1.33	BAC-2	16.82	7.07	82	10200	0.5	6.1	6.81	
BAC-3	7.06	405	3230	1.67	7.44	4310	13100	<0.00400	0.0418	0.0284	<0.00200	<0.00500	0.00585	<0.00400	<0.00200	1.180	<0.000900	0.0366	0.0192	<0.00200	<0.00200	0.13	0.92	0	BAC-3	16.95	7.14	84	15700	0.6	1.04	9.72	
BAC-4	0.74	77.5	552	1.07	7.77	366	1610	<0.00400	0.0292	0.0576	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.311	<0.000900	0.0239	<0.00200	<0.00200	<0.00200	0.43	0.14	0	BAC-4	16.74	7.51	-35	2780	0	0.25	1.78	
BAC-5	0.721	80.3	558	0.96	7.84	505	1780	<0.00400	0.0284	0.0425	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.352	<0.000900	0.0329	<0.00200	<0.00200	<0.00200	0.03	0.17	0	BAC-5	16.93	7.51	-41	3000	0	2.45	1.92	
BAC-6	4.04	119	514	1.15	7.77	989	2400	<0.00400	0.0283	0.0176	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.262	<0.000900	0.0685	<0.00200	<0.00200	<0.00200	0.16	0.98	0.98	BAC-6	16.83	7.53	-10	3660	0	0.2	2.34	
BAC-7	5.34	134	670	2.06	7.81	1240	3280	<0.00400	0.0388	0.0208	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.299	<0.000900	0.0615	0.0035	<0.00200	<0.00200	0.07	0.82	0	BAC-7	15.62	7.41	-89	4610	0	0.83	2.95	
BAC-8	0.322	24.5	257	1.4	7.96	84.5	836	<0.00400	0.0067	0.0393	<0.00200	<0.00500	0.00129	0.00431	<0.00200	0.167	<0.000900	0.00538	<0.00200	<0.00200	<0.00200	0.05	0.23	0	BAC-8	16.85	7.59	-12	1540	4.8	1.23	0.987	
BAC-9	0.303	31.8	332	1.22	7.95	83.2	868	<0.00400	0.0518	0.0464	<0.00200	<0.00500	0.00172	<0.00200	<0.00400	<0.00200	0.169	<0.000900	0.04042	<0.00200	<0.00200	<0.00200	0.05	0.31	0	BAC-9	15.81	7.55	21	1700	2.7	2.67	1.09
BAC-10	0.31	24.1	257	1.46	7.99	81.2	856	<0.00400	0.0543	0.0379	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.134	<0.000900	0.006	<0.00200	<0.00200	<0.00200	0.16	0.11	0	BAC-10	16.21	7.80	73	1560	1.6	6.85	0.996	
BAC-11	0.319	77.6	717	1	7.63	169	1770	<0.00400	0.031	0.1180	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.288	0.25	<0.000900	0.00287	<0.00200	<0.00200	0.11	0.32	0	BAC-11	15.49	7.39	15	3070	6.0	4.33	1.96	
BAC-12	0.288	30.7	308	1.2	7.77	82.3	1010	<0.00400	0.0427	0.0776	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.158	<0.000900	0.04064	<0.00200	<0.00200	<0.00200	0.47	0.18	0	BAC-12	15.21	7.56	13	1640	2.2	3.40	1.05	
BAC-13	0.601	120	995	0.988	7.55	733	2460	<0.00400	0.0367	0.0517	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200	0.307	<0.000900	0.0202	<0.00200	<0.00200	<0.00200	0.31	0.98	0	BAC-13	15.69	7.41	-94	4240	7.0	0.47	2.72	
BAC-14	0.516	152	1020	0.884	7.43	470	2650	<0.00400	0.0289	0.047	<0.00200	<0.00500	<0.00200	<0.00400	<0.00200																		