July 15, 2024

Nilia Moberly Green, TOCOR
U.S. EPA Region 5
Ralph H. Metcalfe Federal Building
77 West Jackson Blvd
Chicago, Illinois 60604

PROJECT: Contract No.: 68HE0318D0003
Task Order No.: 68HE0523F0033

SUBJECT: Final Operable Unit 2 Groundwater Technical Memorandum – Year 1
McLouth Steel Corp. Superfund Site
Trenton, Michigan

Dear Ms. Green:

CDM Smith Federal Programs Corporation (CDM Smith) has reviewed the United States Environmental Protection Agency (EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) comments provided on July 10, 2024 regarding the McLouth Steel Superfund Site, Operable Unit 2 Groundwater Technical Memorandum – Year 1 (TM). CDM Smith has revised the TM to address EPA's comments 1, 2, 3, 4, 5, 6, 9, 10, 13 and 25, and EGLE comments 1, 2, 4, 6 and 9 from the June 20, 2024 letter. No comments were addressed from the EGLE Technical Assessment Memorandum dated June 13, 2024. The remaining comments will be addressed in the Year 2 OU2 TM or in the Remedial Investigation Report.

The following comments were addressed from the Operable Unit 2 Groundwater Technical Memorandum – Year 1 review comment documents:

1. EPA Comment #1, Pages 1 and 2, Site Background: Citations to references should be provided for the summary information provided in Site Background and Physical Setting.

   CDM Smith Response: Citations are added for two background document sources: "(CDM Smith. 2023.; and U.S. Environmental Protection Agency Region 5. 2022)." The references are updated accordingly.

2. EPA Comment #2, Page 1, Site Background, First Paragraph: The acronym "EGLE" should be added in parentheses after "Michigan Department of Environment, Great Lakes, and Energy" since this is the common term used to reference the agency.

   CDM Smith Response: "EGLE" is added to the text as requested.

3. EPA Comment #3, Page 1, Site Background, Second Paragraph: The OU1 Tech Memo should say "Crown Enterprises, "Inc" rather than "Crown Enterprises, LLC."

   CDM Smith Response: The text is updated to "Crown Enterprises, Inc".

4. EPA Comment #4, Page 2, Site Background, Second Paragraph: The OU2 Tech Memo should say "MSC Land Company, LLC" rather than "MSC, Ltd."

   CDM Smith Response: The text is updated to "MSC Land Company, LLC".

5. EPA Comment #5, Page 2, Site Background, Second Paragraph: The last sentence of the paragraph indicates that MSC completed the activities in November 2023. The actions were completed in November 2021, not 2023. This must be corrected.

   CDM Smith Response: The text is updated to "2021".

6. EPA Comment #6, Page 4, Groundwater Sample Analysis: The OU2 Tech Memo states that EPA Region 5 ASB analyzed the groundwater samples for PFAS. Region 5 and Region 3 laboratories analyzed groundwater samples for PFAS. This must be corrected.

   CDM Smith Response: "Region 3" is added to the text.

7. EPA Comment #9, Page 6, Operable Unit 2 Groundwater Investigation Sampling Results, Second Paragraph: The second sentence is confusing and/or there is a typographical error—metals is noted twice.

   CDM Smith Response: The sentence is rewritten: "The compounds and elements shown below were selected to represent classes of compounds (e.g., VOCs, SVOC, metals) based on the number and degree of exceedance of project action levels (PALs)."

8. EPA Comment #10, Page 6, Operable Unit 2 Groundwater Investigation Sampling Results, Table 2: PCBs and pesticides should have been included in Table 2.

   CDM Smith Response: As stated in the text, "Pesticides, PCBs, and D/F were not widely detected and therefore their distributions are not illustrated." For this reason they were not included in Table 2 or in the paragraphs below the table. CDM Smith will include all analytes in the tables for the Year 2 Memoranda and RI Report.

9. EPA Comment #13, Page 9, Field Parameter Measurement Results, First Paragraph: The OU2 Tech Memo indicates that the highest pH (13.21) was noted in the northern portion of the site in monitoring well RI-MW-22 Table 1b Groundwater Field Parameter Measurement Results and Figure 19 Groundwater Results—pH, both indicate that the pH of groundwater in monitoring well RI-MW-22 was observed to be 13.31.

   CDM Smith Response: The text is updated to "13.31".

10. EPA Comment #25, Figure 19 Groundwater Results—pH: The legend incorrectly indicates that red symbolizes a pH greater than 4.5. It appears that red represents a pH greater than 11.5. The legend for the figure must be corrected.

    CDM Smith Response: The pH value in the legend is changed from 4.5 to 11.5.

11. EGLE (June 20, 2024 letter) Comment #1, Site Background, Second Paragraph: The Tech Memo states, "In 2000, DSC, Ltd. sold the 76-acre northern portion of the facility to Manuel J. Maroun, who transferred the title through Crown Enterprises, LLC to Riverview-Trenton Railroad Co." EGLE suggests that parentheses be add as (RTRR site) after "facility", please make it clear that this portion is not part of the Superfund Site.

    CDM Smith Response: The text is revised to include "(RTRR site)" after the word 'facility' to improve statement clarity.

12. EGLE (June 20, 2024 letter) Comment #2, Site Background, Third Paragraph: It is not clear in this paragraph whether these activities took place on the Superfund Site or the RTRR Site or both. Please clarify where these activities occurred?

    CDM Smith Response: Added "on site" and "the site" to clarify where the previous actions have occurred (site = Superfund Site).

13. EGLE (June 20, 2024 letter) Comment #4, Page 4, Synoptic Water Level Measurement: Third sentence identifies the highest water level elevation at RI-MW-13; however, Table 1a and Figure 5 indicate that the highest water level elevation is at RI-MW-39.

    CDM Smith Response: The text is updated with "RI-MW-39" to match the information in Table 1a and Figure 5.

14. EGLE (June 20, 2024 letter) Comment #6, Groundwater Sample Analysis: It is stated that PFAS were analyzed by Method OM022; however, the Final QAPP dated July 21, 2023, indicates that Method OM021 will be used for groundwater samples. Please explain the discrepancy…

    CDM Smith Response: A review of the QAPP and analytical reports for PFAS confirmed Method OM021 was used. Corrected text to "OM021."

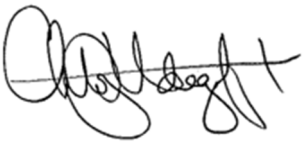
15. EGLE (June 20, 2024 letter) Comment #9, Page 9, Field Parameter Measurement Results: Third sentence indicates the highest pH is 13.21. According to Figure 19, it should be 13.31.

    CDM Smith Response: The text is revised to "13.31".

If you have any questions regarding this submittal, please contact me at your earliest convenience at (412) 208–2429 or vandegriftcj@cdmsmith.com.

Very truly yours,

CDM FEDERAL PROGRAMS CORPORATION



Senior Project Manager

cc: John Grabs, CDM Smith
Ernest Ashley, CDM Smith
Project file

Memorandum

From: *Christopher Vandegrift, Senior Project Manager*
Ernest Ashley, Senior Hydrogeologist

Date: *July 15, 2024*

Subject: *Operable Unit 2 Groundwater Technical Memorandum – Year 1*

CDM Federal Programs Corporation (CDM Smith) prepared this technical memorandum to summarize the Operable Unit 2 (OU2) groundwater characterization program at the McLouth Steel Corporation (McLouth) Superfund Site. This project is part of U.S. Environmental Protection Agency (EPA) Design and Engineering Services Contract No. 68HE0318D0003, Task Order No. 68HE0523F0033. This technical memorandum provides results of groundwater quality data collected during the November and December 2023 sampling event. The objectives were to characterize the nature, extent, and concentrations of chemical contaminants in groundwater and provide recommendations for additional site characterization, where appropriate.

Site Background

The site is in Trenton, Michigan, in an area that includes industrial, commercial, and residential properties (**Figure 1**). The site occupies the southwestern 197 acres of the former steel mill property, which originally consisted of approximately 273 acres (**Figure 2**). The remaining approximately 76 acres is a separate cleanup site, the Riverview-Trenton Railroad (RTRR) company site, that is being addressed under the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Resource Conservation and Recovery Act (RCRA) program. The site is divided into three OUs: OU1 is the property source areas, OU2 is sitewide groundwater, and OU3 is Detroit River surface water and sediment (CDM Smith 2023; U.S. Environmental Protection Agency Region 5 2022).

The former McLouth steel facility operated from about 1950 until 1995, when McLouth filed for bankruptcy. In 1996, the McLouth bankruptcy estate sold the entire McLouth facility to Hamlin Holdings, Inc., which became DSC, Ltd. (DSC). On December 17, 1999, the Michigan Department of Environmental Quality (MDEQ) and DSC executed a comprehensive action and remedial consent order that addressed contamination from numerous waste management units and areas of concern within the property. In 2000, DSC sold the 76-acre northern portion of the facility (RTRR site) to Manuel J. Maroun, who transferred the title through Crown Enterprises, Inc (Crown) to RTRR.

On June 14, 2007, there was a fire on the site in an open pond used to collect waste oil. After the fire was extinguished, hundreds of containers and waste drums were found. On October 16, 2007, EPA and MDEQ discovered over 3,700 transformers and capacitors containing polychlorinated biphenyls (PCBs) in one of the steel production buildings. Between May 12 and October 2, 2009, EPA conducted a fund-led removal action at the site that included the removal and disposal of 3,744 PCB capacitors; 39,783 gallons of PCB oil; and 1,877 containers of hazardous substances.

On March 18, 2011, MDEQ referred the southern section of the former McLouth facility, including the property, to the EPA Region 5 Superfund Program. On May 11, 2011, EPA Region 5 transferred responsibility for the southern portion of the former McLouth facility from its RCRA program to its Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program. In 2015, an investigation for contaminants of potential concern was conducted for the McLouth and RTRR sites. Inorganics, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), PCBs, dioxins/furans (D/F), and per- and polyfluoroalkyl substances (PFAS) were identified, as well as areas with low-pH groundwater, ranging from 0.9 to 5.88, around the acid pickling building and sedimentation basin. Other areas of the site were found to have elevated pH, ranging from 9.5 to 13.4.

In 2017, Wayne County acquired 183 acres of the 197-acre southern portion through tax foreclosure. Wayne County then entered into a purchase and development agreement with Crown. One of the purposes of this settlement was to provide the non-liable parties—Crown and its affiliate, MSC Land Company, LLC (MSC)—with covenants not to sue. This allowed MSC to take the title to the property with clarity concerning its obligations under CERCLA, RCRA, and the Toxic Substances Control Act. On August 6, 2018, Crown and MSC entered into a settlement agreement with EPA, MDEQ, and the U.S. Department of Justice, where MSC agreed to complete the following on the McLouth and RTRR sites: demolish 45 structures, remove asbestos-containing material, containerize wastes and materials containing PCBs from all structures before demolition, install a fence around the property, remove contaminated water and sludges from 23 subsurface structures, investigate five areas where PCBs may have been released, and assess and report on stormwater management options. In November 2021, under EPA oversight, the initial phase of cleanup was completed at the southern portion of the former site.

Physical Setting

Topography

The McLouth property is on the western side of the Trenton Channel of the Detroit River, which flows north to south. The elevation of the Trenton Channel is approximately 574 feet National Geodetic Vertical Datum of 1988 and the high point of the site at the west side is approximately 590 feet in elevation. The land surface next to the Trenton Channel is about 582 feet in elevation. There is little topographic elevation change, but a gentle slope exists from the west side along West Jefferson Avenue to the bulkhead along the Trenton Channel.

Site Geology

According to the *Quaternary Geology of Southern Michigan* map (Farrand and Bell 1982), the site is situated on gray to dark reddish brown lacustrine clay and silt that formed in extensive, flat, low-lying areas. These areas were formerly inundated by glacial Great Lakes and were in separate small lake basins, including in small areas of lacustrine sand and clay-rich till.

The near-surface geology of the site area consists of glacial Great Lakes lacustrine clay and silt deposits overlain by fill material/deposits, especially in the floodplain areas along the Detroit River. Regionally, the clay and silt deposits vary in thickness from approximately 10 to 40 feet thick and appear to be laterally extensive across the site. Small, occasional lenses of lacustrine sand may be present throughout

the deposits. Based on historical shoreline data, extensive filling toward the Detroit River occurred between 1946 and 1952, and additional filling occurred later between 1957 and 1964. The site has variable soil surface textures, none of which meet the requirements of a hydric (wetland) soil.

During site investigation, three types of soils were encountered the most throughout the site: shallow backfill soil (fill), native sand, and native clay, which sits directly on top of bedrock. Fill was typically a well-graded sand with gravel and silt that was found between 0 to 15 feet below ground surface (bgs). Fill was observed in most borings. Non-native material included brick, concrete, wood, scrap metal, debris, and slag. Below this was a fill layer of loose, poorly graded, fine to very fine sand. This zone was generally from 5 to 25 feet bgs and was often black in color. Below this sand, there was a layer of fat clay throughout the site. This clay was generally encountered from 20 to 40 feet bgs. Below the clay was dolomitic limestone bedrock, encountered around 30 to 40 feet bgs. Most of the soil borings did not note a sand or gravel layer within or below the clay overlying the bedrock.

Figure 3 presents a schematic cross section of the southern portion of the site. The bedrock surface slopes slightly toward the south and toward the Trenton Channel along the eastern border of the site. **Figure 4** presents an image of the top of clay surface. The clay thins toward the Trenton Channel and there appears to be a slight depression in the top of clay surface at the southeast corner of the site.

Based on the approximate 30-foot depth of the Trenton Channel near the McLouth facility, the river and bed deposits are likely incised into the lacustrine clay and possibly to the top of the limestone bedrock. The cross section provided in **Figure 3** indicates the basal clay thins toward the Trenton Channel and the bedrock surface may be close to the 30-foot depth of the channel. The OU3 sediment sampling effort encountered refusal at several locations, which may have been on the limestone bedrock.

Operable Unit 2 Groundwater Investigation Activities

Groundwater-related activities included monitoring well construction, well development, hydraulic conductivity testing, synoptic groundwater elevation measurement, and groundwater sampling for chemical analysis.

Monitoring Well Construction

Monitoring wells were completed in soil borings with the screened interval typically placed in permeable lithologies below the observed groundwater table. Screening in permeable lithology focused monitoring well installation on the intervals most likely to transport groundwater. Screening below the water table enabled hydraulic conductivity testing with both falling head and rising head slug tests or pneumatic methods. Screen intervals were also focused on intervals where visual, olfactory, or field screening with a photoionization detector indicated the potential presence of contamination. Soils saturated with nonaqueous phase liquid (e.g., petroleum fuel) were not observed so screen intervals straddling the water table were not considered necessary or appropriate. Monitoring well construction details are provided in **Attachment A**.

Well Development

Prior to groundwater sampling, well development was performed on 32 new monitoring wells and redevelopment on 14 existing monitoring wells. Development was performed in accordance with CDM Smith's Quality Assurance Project Plan (QAPP) (CDM Smith 2023). Field parameters were collected

during development, and wells were typically developed until measured turbidity was less than 5 nephelometric turbidity units (NTU). Achieving turbidity of 5 NTU was challenging; for some wells screened across fine-grained material, a measure of less than 50 NTU was considered acceptable after repeated efforts. CDM Smith was unable to redevelop MW-N142s as its casing was damaged, but the well was able to be sampled using smaller sampling equipment.

Synoptic Water Level Measurement

Once well development and redevelopment were complete, CDM Smith collected synoptic water level measurements from all accessible on-site wells. **Figure 5** presents a groundwater contour plan based on the November 3, 2023 synoptic round of groundwater level measurements. The highest water level elevations were at RI-MW-39, in the central portion of the site, and the lowest were close to the Trenton Channel of the Detroit River. A groundwater divide is apparent, extending north–south through the middle of the site. The November 2023 synoptic round was collected on November 3, 2023, approximately 2 weeks after a rain event on October 20, 2023, that yielded 0.04 inches of rainfall. The presence of this groundwater flow divide may be a result of preferential or enhanced infiltration in the unpaved portions of the site. There may be potential influence of groundwater pumping or groundwater discharge at the former quarry west of West Jefferson Avenue. Additional synoptic water level rounds at dryer times of the year will be required to evaluate the persistence of the groundwater flow divide observed in the November 2023 data. **Table 1a** in **Attachment A** summarizes the synoptic water level measurements for Year 1 sampling.

Groundwater Sampling

CDM Smith completed one round of groundwater sampling at 46 monitoring wells from November 13 to December 1, 2023. Of the 46 groundwater sampling locations, 32 samples were collected from new monitoring wells and 14 samples were collected from existing monitoring wells. Five field duplicates were also collected.

Groundwater sampling was conducted using low-flow groundwater sampling procedures in accordance with the QAPP (CDM Smith 2023). To prevent contamination, a peristaltic pump with high-density polyethylene tubing was used at wells sampled for PFAS. Water quality parameters were measured in purged groundwater; results are provided in **Table 1b** in **Attachment A**. In all, 277 groundwater field samples, 33 duplicate samples, 44 equipment blanks, 2 field blanks, 10 trip blanks, and 20 waste characterization were collected for analysis.

Groundwater Sample Analysis

Groundwater samples were analyzed by the following laboratories and methods: Contract Laboratory Program laboratory, Bonner Analytical Testing Company, analyzed target analyte list (TAL) metals (including mercury and cyanide), VOCs, SVOCs, PCB Aroclors, and pesticides by Superfund Analytical Method 01.1; Analytical Resources LLC analyzed D/F by High-Resolution Superfund Method 02.1; and the EPA Region 3 and Region 5 Analytical Services Branch (ASB) Laboratories analyzed PFAS by Method OM021. **Attachment B** provides the analytical data tables.

Investigation-Derived Waste Management

Purge water was divided into five geographically based regions. Water was collected and containerized in 55-gallon drums temporarily stored on-site. Purge water from well development was transported to an on-site frac tank to be stored. Purge water stored in the frac tank is still awaiting testing before it can be removed from the site. CDM Smith collected an investigation-derived waste purge water sample from each of the five regions on December 1, 2023. These waste characterization samples were analyzed by RTI Laboratories, Inc. for TAL metals (including mercury), cyanide, VOCs, SVOCs, pesticides, PCBs, and sulfide reactivity.

Hydraulic Conductivity Testing

CDM Smith conducted hydraulic conductivity tests on 12 new monitoring wells between December 4 and 8, 2024. Testing was performed in accordance with CDM Smith's Technical SOP 4-6, Hydraulic Conductivity Testing. Rising head and falling head slug testing was performed on 11 wells. Pneumatic testing was performed on one well. Test data was analyzed using AQTESOLV™ software for aquifer test data plotting and evaluation, applying the Bouwer and Rice method, as described in *A Slug Test of Unconfined Aquifers with Completely or Partially Penetrating Wells* (Bouwer and Rice 1976) to calculate horizontal hydraulic conductivity in the unconfined overburden material. The AQTESOLV analytical screens and calculations of hydraulic conductivity from the rising and falling head tests are provided in **Attachment C**.

Wells for hydraulic conductivity testing were selected based on hydrogeological considerations, whether well screens were in native soil or fill material, a range of perceived permeability based on well development data, and geographic coverage across the site.

The horizontal hydraulic conductivity values estimated at the 12 groundwater monitoring wells ranged from 2.99×10^{-2} feet per day (1.05×10^{-5} centimeters per second) (RI-MW-30) to 24.1 feet per day (8.51×10^{-3} centimeters per second) (RI-MW-29). The lithology within the screened interval of RI-MW-30 is represented as a silty fill material. The lithology within the screened interval of RI-MW-29 is represented as clayey fill material with gravel. Most of the horizontal hydraulic conductivity values ranged from 0.1 to 5 feet per day and represent a fine sand to a silt (Domenico and Schwartz 1990).

Data Validation

The data in this technical memorandum underwent data validation as described in QAPP Worksheets #34 through #36, except for D/F and reactive sulfide, which were analyzed by a Tier IV subcontract laboratory, and a portion of PFAS results that were analyzed by the EPA Region 5 ASB. The data validation reports for these analytes were not available when this technical memorandum was being prepared. The preliminary analytical results for D/F, reactive sulfide, and a portion of PFAS results are presented herein as they are expected to be usable, but they should be considered preliminary and subject to change during data validation. The data in this technical memorandum are being presented for completeness and with the purpose of evaluating the next steps in the investigation. There are rejected and thus unusable VOC, SVOC, pesticide, and PCB Aroclor data results (shown with an "R" qualifier), including equipment blanks and waste characterization samples analyzed for pesticides and PCBs. Results were rejected for various outliers, including inadequate preservative and analysis outside of the technical holding time. The limited number of rejected values is not considered a significant

limitation of the usefulness of the OU2 data set in supporting the data quality and project objectives. The data are usable for assessing the nature and extent of groundwater impacts or identifying next steps for OU2 characterization.

Operable Unit 2 Groundwater Investigation Sampling Results

CDM Smith evaluated the OU2 sampling results to identify summary statistics and patterns that illustrate the distribution of constituents of potential concern across the site. The main analyte groups are VOCs, SVOCs, pesticides, PCB Aroclors, and inorganics (metals and cyanide). PCB congeners, D/F, and PFAS were analyzed for a smaller subset of samples.

Sample results are provided in the tables in **Attachment B** and summary statistics are provided in the text. **Figures 6** through **18** illustrate the concentration distribution of analytes. The compounds and elements shown below were selected to represent classes of compounds (e.g., VOCs, SVOC, metals) based on the number and degree of exceedance of project action levels (PALs). Pesticides, PCBs, and D/F were not widely detected and therefore their distributions are not illustrated.

The detected concentrations of analytes were compared to the PALs listed on QAPP Worksheet #15. **Table 2** summarizes the number of detections and exceedances of all samples in each major analyte class.

Table 2 – Groundwater Sample Detections and Exceedances Summary

Analyte Group	Total Exceedances*	Total Detections*
VOCs	104 (4%)	413 (17%)
SVOCs	109 (3%)	379 (12%)
PFAS	69 (38%)	145 (22%)
Inorganics	370 (15%)	1,539 (64%)

*Percentages are based on total analytes examined, % – percent

Volatile Organic Compounds

VOCs were not widely detected nor measured at high concentrations at the site. The chlorinated VOC trichloroethene (TCE) was detected 23 times with 7 PAL exceedances. The maximum TCE result was 3.9 micrograms per liter (µg/L) at RI-MW-23 at the north end of the site (**Figure 6**). Benzene, a nonchlorinated VOC often associated with gasoline fuels, had more detections and exceedances, with 76% of samples having detections and 59% of samples having PAL exceedances (**Figure 7**). Exceedances of the benzene PAL were generally in the central and eastern portions of the site, with the two highest detections at the northern end (RI-MW-23 at 10 µg/L and RI-MW-41 at 8 µg/L). **Table 3** shows the proportion of VOC exceedances and detections.

Table 3 – Groundwater Sample Exceedances and Detections – Volatile Organic Compounds

Analyte	Exceeded	Detected	Total Samples
TCE	7	23	46
Benzene	27	35	46

Semivolatile Organic Compounds

The selected SVOCs (**Table 4**) have relatively high percentages of PAL exceedances. Of the SVOC samples, 46% exceeded their PALs, with 56% of samples having detections. 1,4-dioxane (p-dioxane) and naphthalene had the highest relative exceedances and detections. **Figures 8**, **9**, and **10** present the distribution and relative concentrations of p-dioxane, naphthalene, and pentachlorophenol, respectively.

Naphthalene detections were widely but sporadically distributed across the site. There were five locations with detections 100 times the PAL and seven detections 10 times the PAL.

Pentachlorophenol was detected at 10 times the PAL at four locations, two in the northern portion and two in the southern portion of the site. Most pentachlorophenol detections were just slightly above the PAL.

Table 4 – Groundwater Sample Exceedances and Detections – Semivolatile Organic Compounds

Analyte	Exceeded	Detected	Total Samples
1,4-Dioxane (p-Dioxane)	28	35	51
Naphthalene	26	33	46
Pentachlorophenol	12	12	46

Per- and Polyfluoroalkyl Substances

Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were the two primary PFAS compounds detected in groundwater. Their detections and relative concentrations were essentially co-located. In general, PFOS concentrations were significantly higher than PFOA concentrations. **Figure 11** presents the distribution and relative concentrations of PFOS. The two highest PFOS detections were at the southern end of the northern (narrow) portion of the site (RI-MW-13 and MW-N144). **Table 5** shows the proportion of PFOS exceedances and detections.

Table 5 – Groundwater Sample Detections and Exceedances – Per- and Polyfluoroalkyl Substances

Analyte	Exceeded	Detected	Total Samples
PFOS	30	30	36

Metals

Metals were detected in 69% of samples and 35% of samples had exceedances of PALs. Based on the number of PAL exceedances, the association with steel making, and the potential for human health or ecological risk, **Figures 12** through **18** were generated for the following metals: antimony, arsenic, cobalt, lead, manganese, mercury, and vanadium. **Table 6** shows the proportion of specific metal exceedances and detections.

Table 6 – Groundwater Sample Detections and Exceedances – Metals

Analyte	Exceeded	Detected	Total Samples*
Antimony	31	58	102
Arsenic	102	102	102
Cobalt	22	70	102
Lead	22	53	102

Analyte	Exceeded	Detected	Total Samples*
Manganese	43	86	102
Mercury	15	21	102
Vanadium	16	101	102

*The number of metals analyses exceeds the number of samples collected as samples were analyzed by more than one method.

Overall, antimony concentrations were low across the site (**Figure 12**). Antimony groundwater samples exceeded the PAL of 0.78 µg/L in about 30% of samples by one to two orders of magnitude, and had an average concentration of 2.3 µg/L. The maximum concentration in sample RI-MW-16-Y1 was 14 µg/L, two orders of magnitude greater than the groundwater PAL.

Arsenic was present throughout the site at elevated concentrations; this may be because of industrial waste and the use of slag as backfill (**Figure 13**). Arsenic exceeded the PAL of 0.052 µg/L at every location by several orders of magnitude. The average concentration was 4.6 µg/L. The maximum concentration of 24 µg/L, which is three orders of magnitude greater than the groundwater PAL, was detected in sample MW-N118.

Cobalt was most notably detected metal on the upgradient side of the site, as well as in a cluster in the southeast, where the McLouth water treatment plant and one of the blast furnace operations were located (**Figure 14**). Cobalt exceeded the PAL of 0.6 µg/L by one to two orders of magnitude in about 22% of samples, and had an average concentration of 1.1 µg/L. The maximum concentration was 16 µg/L at RI-MW-03, which is two orders of magnitude greater than the groundwater PAL.

Lead was elevated in about half a dozen areas across the site, with one area (RI-MW-16) suspected to be where drum releases occurred (**Figure 15**). Lead exceeded the PAL of 4 µg/L by one to two orders of magnitude in about 22% of samples. The maximum lead concentration of 120 µg/L was in the sample from RI-MW-16, exceeding the lead PAL by two orders of magnitude. The average lead concentration was 7.4 µg/L.

Manganese was very prominent throughout the site in known areas of historic backfilling (**Figure 16**). Manganese exceeded the PAL of 43 µg/L in about 42% of samples by one to two orders of magnitude. Location RI-MW-03 from 5 to 15 feet bgs exceeded the manganese PAL by two orders of magnitude, with a result of 2,900 µg/L. On average, the result for manganese was 250 µg/L, one order of magnitude greater than the groundwater PAL.

Mercury had low concentrations throughout the site (**Figure 17**). Mercury exceeded the PAL of 0.063 µg/L by one order of magnitude in about 15% of samples. Sample RI-MW-16-Y1, with a result of 0.29 µg/L, exceeded the mercury PAL by one order of magnitude. The average concentration of mercury was 0.095 µg/L.

Vanadium exceeded the PAL of 4.5 µg/L by one order of magnitude in about 16% of samples (**Figure 18**). The maximum vanadium detection of 32 µg/L was in the sample from RI-MW-30-F-Y1 (screened from 10 to 20 feet bgs), which exceeded the PAL by one order of magnitude. Other notable detections were from RI-MWs-14, -16, -21, and -41. The average concentration of vanadium was 3 µg/L.

Field Parameter Measurement Results

During the purging process and before sample collection at each well, the water quality parameters of pH, specific conductivity, dissolved oxygen, temperature, redox potential, and turbidity were measured. **Figure 19** presents the distribution of pH readings across the site. High pH groundwater predominates across most of the site, with the highest pH (13.31) noted in the northern portion of the site (RI-MW-22). The prevalence of high-pH groundwater is likely associated with industrial waste, including steel manufacturing slag. Relatively low-pH areas are present in limited areas apparently associated with the pickling building and sedimentation basin, and along the southern portion of the site. The lowest pH measured was 6.5.

Groundwater grab samples were analyzed for ferrous iron and hexavalent chromium via a HACH colorimeter. Of the 49 wells analyzed, ferrous iron was detected in over 75% of the grab samples with varying concentrations. Conversely, hexavalent chromium was detected in only approximately 37% of grab samples at relatively low concentrations. **Attachment A** provides the results of water quality parameters, ferrous iron, and hexavalent chromium in each well analyzed.

Findings – Distribution Relative to Former Site Features

Maximum exceedances are spread throughout the site. However, several groupings of the highest concentrations correspond with the former McLouth operation footprints. The layout of the former steel manufacturing operations is shown in **Figure 2**. Downgradient of the former drum storage area, three VOC and SVOC maximum exceedances occurred. Other maximum exceedances were spread throughout the site. **Table 7** provides the locations of groundwater detections and exceedances and the analytes that were detected at relatively high concentrations in that area.

Table 7 – Groundwater Sample Detections and Exceedances – Distribution Relative to Former Site Features

Monitoring Well	Location	Analyte
RI-MW-03	Southwest, along Jefferson Avenue	**Inorganics:** Cobalt, Manganese
RI-MW-15	South central, alongside southern fence	**SVOC**: Naphthalene
RI-MW-16	Within area of former drum and oil hopper storage	**Inorganics:** Antimony, Lead, Mercury
RI-MW-17	South central	**SVOC:** 1,4-Dioxane (p-Dioxane)
RI-MW-23	Downgradient of former drum storage area	**VOC:** Benzene, TCE; **SVOC:** Pentachlorophenol
RI-MW-30	Within area of former wastewater treatment plant	**Inorganic:** Vanadium
RI-MW-N118	East central, along Trenton Channel	**Inorganic:** Arsenic
RI-MW-13 MW-N144	South/central in northern portion and along eastern fence	**PFAS (1):** Perfluorooctanesulfonic acid

Updated Conceptual Site Model, Data Needs, and Recommendations

Year 1 groundwater and geologic data provide a basis for evaluating general areas of impact and identifying specific areas for additional characterization. Significant aspects of an updated conceptual

site model include the documented consistency of the basal lacustrine clay across the site and a groundwater divide along the center of the site. The lacustrine clay, where present, is expected to form an aquitard against vertical flow and the migration of constituents of potential concern. Clay was encountered at every location in the OU1 soil borings except RI-SB 27 and RI-SB-29, in the eastern portion of the site. Evaluation of the historical shorelines indicates former river channels may have eroded into the clay in this area. A groundwater divide, with a high center at RI-MW-13 near the center of the site, indicates the potential for some groundwater flow from the site toward West Jefferson Avenue, which is counter to the expected regional flow toward the Trenton Channel of the Detroit River. The presence of the groundwater divide warrants additional assessment along the western property boundary.

The lithology of the site above the basal clay consists of relatively permeable materials above the basal lacustrine clay. Extensive layers of low-permeability materials that would limit vertical mixing of groundwater above the basal clay were not noted. Although some wells were screened at shallow or deep depths within the saturated section, well clusters were not installed during Year 1 drilling. Monitoring well clusters are recommended along the shoreline to facilitate assessment of shallow and deep groundwater flow, vertical hydraulic gradients, and groundwater to surface water interactions.

Evaluation of OU1 soil data, as presented in the OU1 Technical Memorandum, indicated potential source material in the following areas (the MW numbers are the same as the SB numbers):

- Near RI-SB-05, upgradient of the property line, where two maximum exceedances of metals occurred
- Near RI-SB-07, within or downgradient of a building that housed process oil pumps/piping, where two maximum exceedances of D/F occurred
- Near RI-SB-16, within or downgradient of a former drum and oil hopper storage area, where six maximum exceedances of SVOCs, Aroclors, and metals occurred
- Near RI-SB-19, within the former air separation plant, where four maximum exceedances of SVOCs and metals occurred
- Near RB-SB-23, downgradient of a former empty drum storage area, where three maximum exceedances of VOCs, pesticides, and metals occurred
- Near RI-SB-25, within the former sludge pit, where eight maximum exceedances of SVOCs, PCBs, and metals occurred
- Near RI-SB-32, within the former sludge filter, where two maximum exceedances of metals occurred
- Near RI-SB-41, within the former mold preparation building, where three maximum exceedances of metals occurred

A list of groundwater detections and exceedances relative to former site features is presented in **Table 7**. Additional soil borings and monitoring wells are recommended near several maximum exceedance locations to evaluate the nature and extent of groundwater impacts and the presence of

potential source material more fully in these areas. Based on the groundwater data, areas that would benefit from additional monitoring well locations include:

- Near RI-MW-03, upgradient of property line, where two maximum exceedances of inorganics occurred
- Near RI-MW-16, within or downgradient of the former drum and oil hopper storage area, where three maximum exceedances of inorganics occurred
- Near RI-MW-23, within or downgradient of a former drum storage area, where three maximum exceedances of VOCs and SVOCs occurred

In addition to the additional monitoring wells proposed to evaluate these areas of the former steel manufacturing facility, soil borings and monitoring wells are recommended across and surrounding the northern portion of the site, where several significant PAL exceedances occurred.

Operable Units 1 and 2 Year 2 Scope of Work

EPA Region 5's Statement of Work for Year 2 anticipated approximately or up to 2,000 linear feet of drilling, 20 surface soil samples, 134 subsurface soil samples, 30 additional monitoring wells installed above bedrock, and 80 groundwater samples during a one-time event. The OU1 Technical Memorandum, which was produced prior to groundwater data compilation, identified several areas for additional characterization based on soil results and presented an approximate scope for additional soil borings. The OU1 Technical Memorandum noted that the final scope of additional soil characterization and specific boring locations would be finalized after OU2 groundwater sampling results were evaluated from the monitoring wells installed in the OU1 soil borings. Based on evaluation of the combination of Year 1 OU1 and OU2 results, CDM Smith has developed a proposed plan for Year 2 field work. The plan includes 16 locations for soil borings and single monitoring well construction, 4 well cluster locations along the Trenton Channel shoreline and 11 locations for soil sampling only. **Figure 20** presents the proposed soil boring and monitoring well locations. **Table 10** in **Attachment D** presents the additional characterization rationale.

Like Year 1, soil and groundwater samples will be analyzed for VOCs, SVOCs, TAL metals, and cyanide. Half of the samples will also be analyzed for PCBs, D/F, pesticides, PFAS, and pH. The sampling, including quality assurance/quality control samples, will be performed in accordance with the QAPP (CDM Smith 2023).

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Techna Corporation (Techna). 1998. *RCRA Facility Assessment Report*.

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Figures

Tables

Attachments

Figures

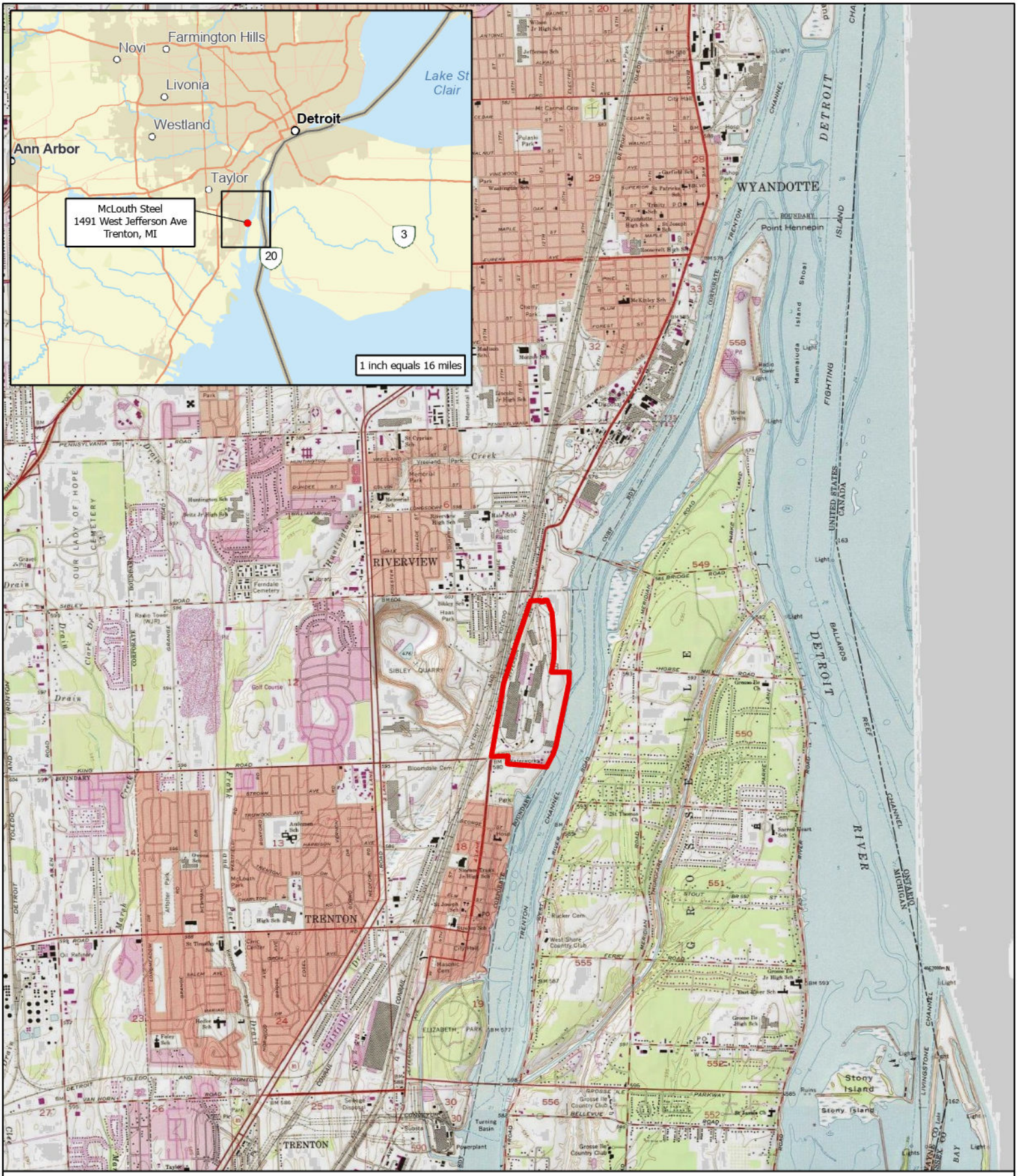

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Figure 1
Site Location Map
McLouth Steel Corp Superfund Site
Trenton, Wayne County. Michigan

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CDM Smith

N

0 500 1,000 Feet

NAD 1983 StatePlane Michigan South FIPS 2113 Feet

Legend

- Former Site Structure
- Site Boundary
- Wayne County Parcels

Figure 2

Site Layout Map

McLouth Steel Corp Superfund Site

Trenton, Wayne County. Michigan

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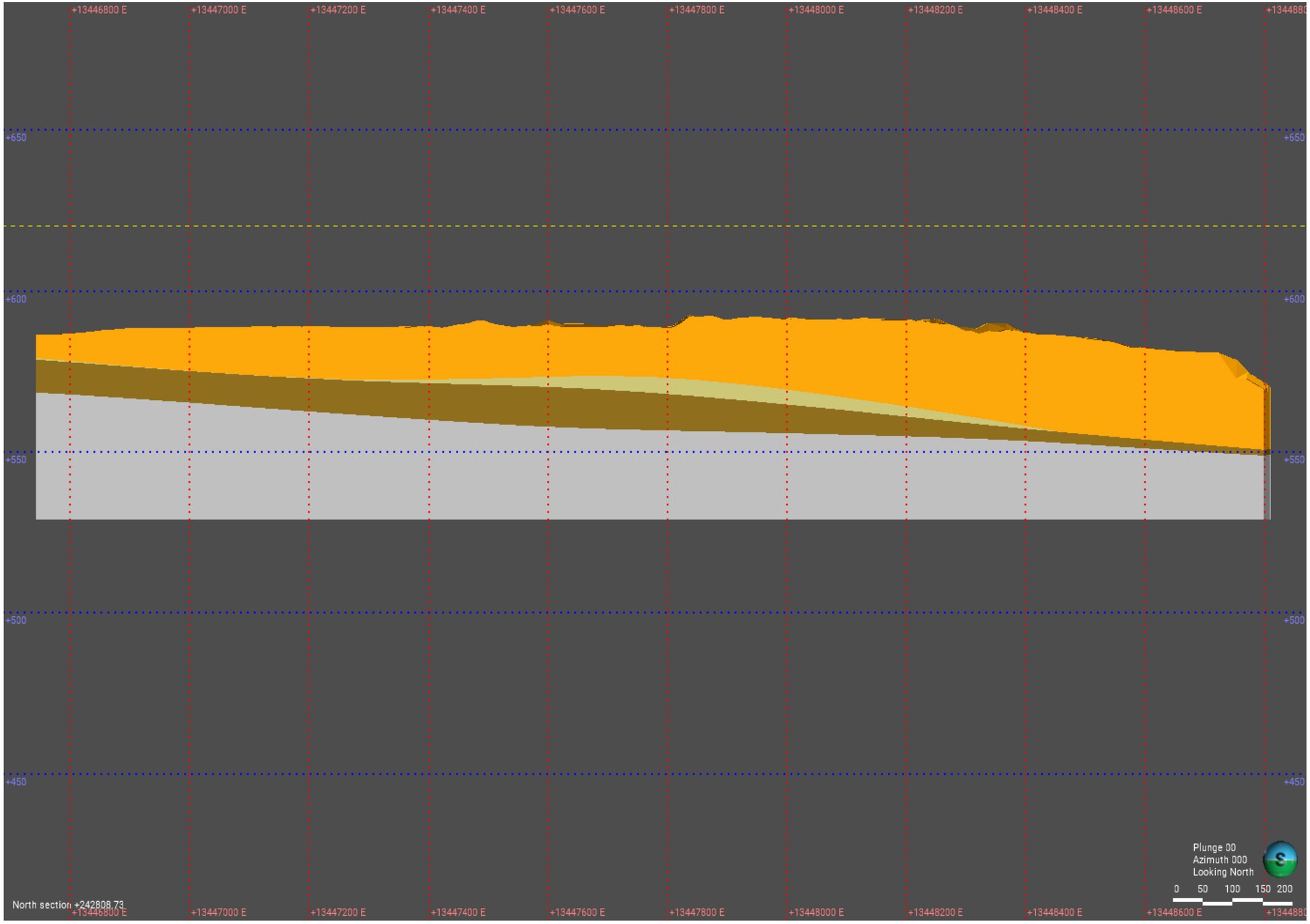
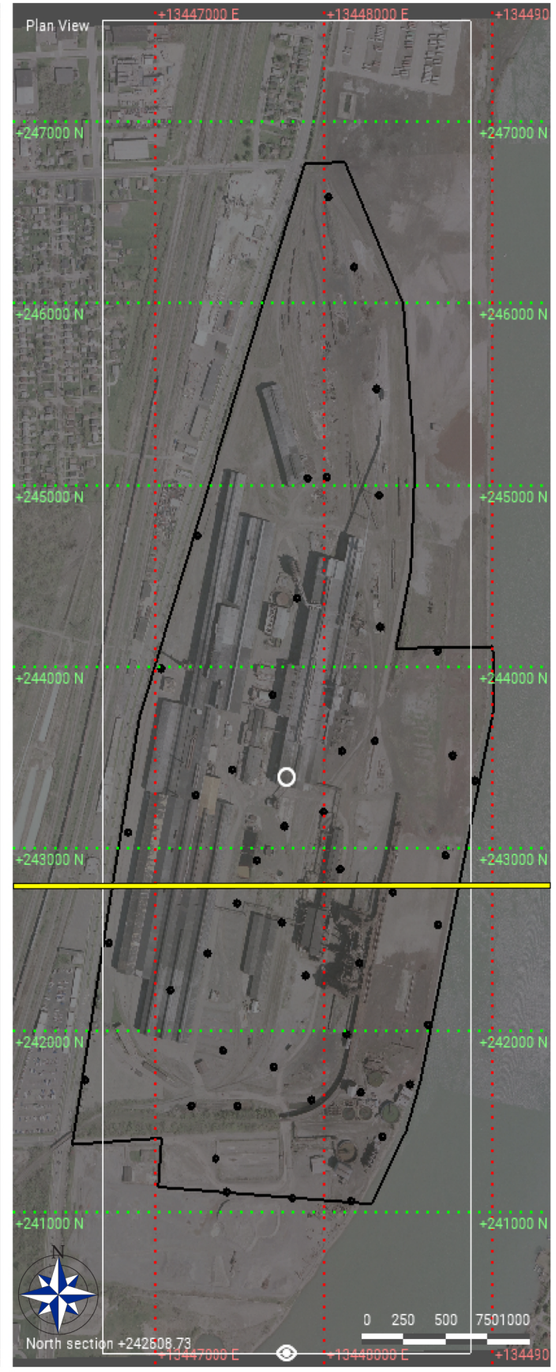




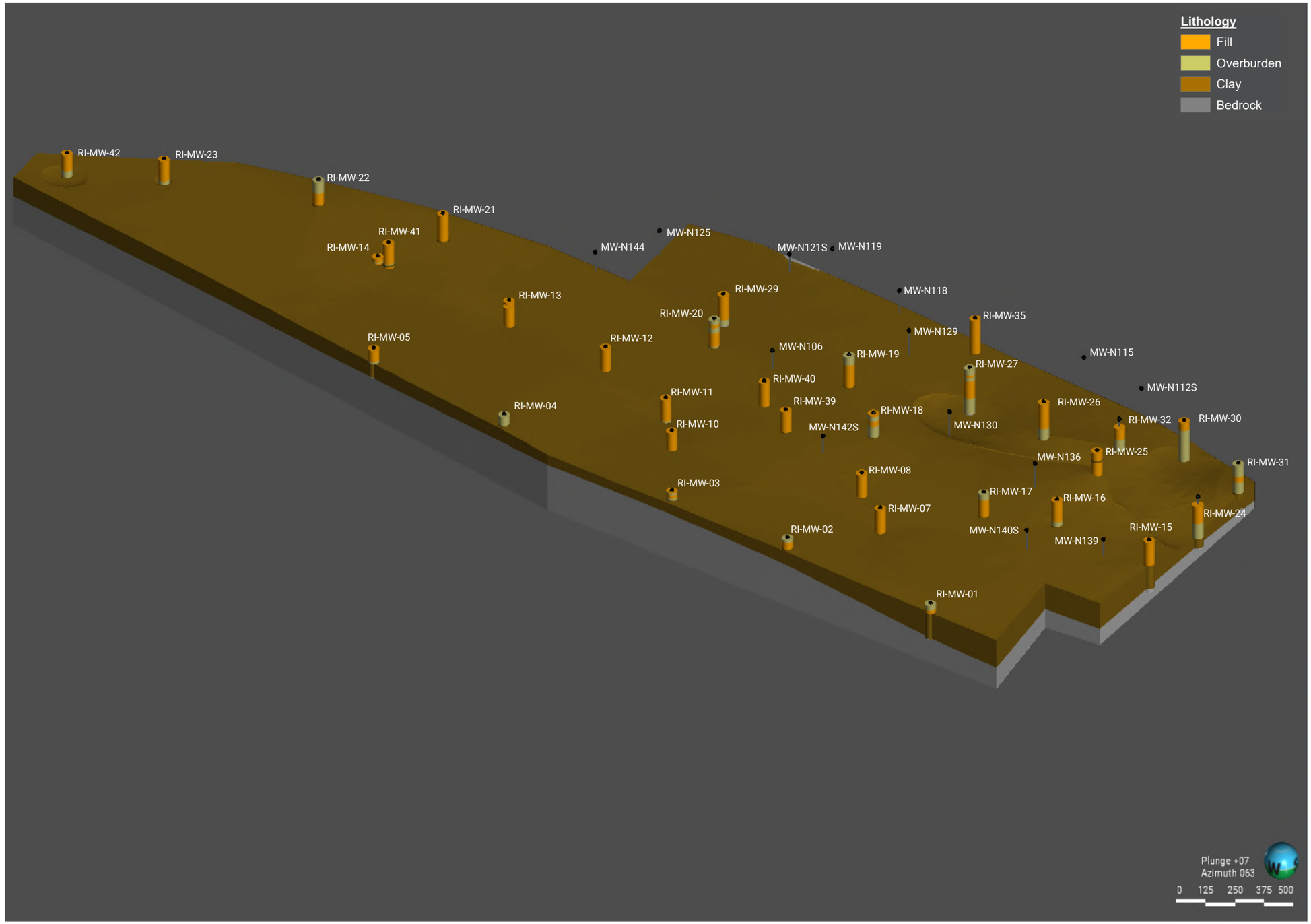
Lithology

- Fill
- Overburden
- Clay
- Bedrock

Cross Section Cut Line

Figure 3
Geologic Cross Section
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith



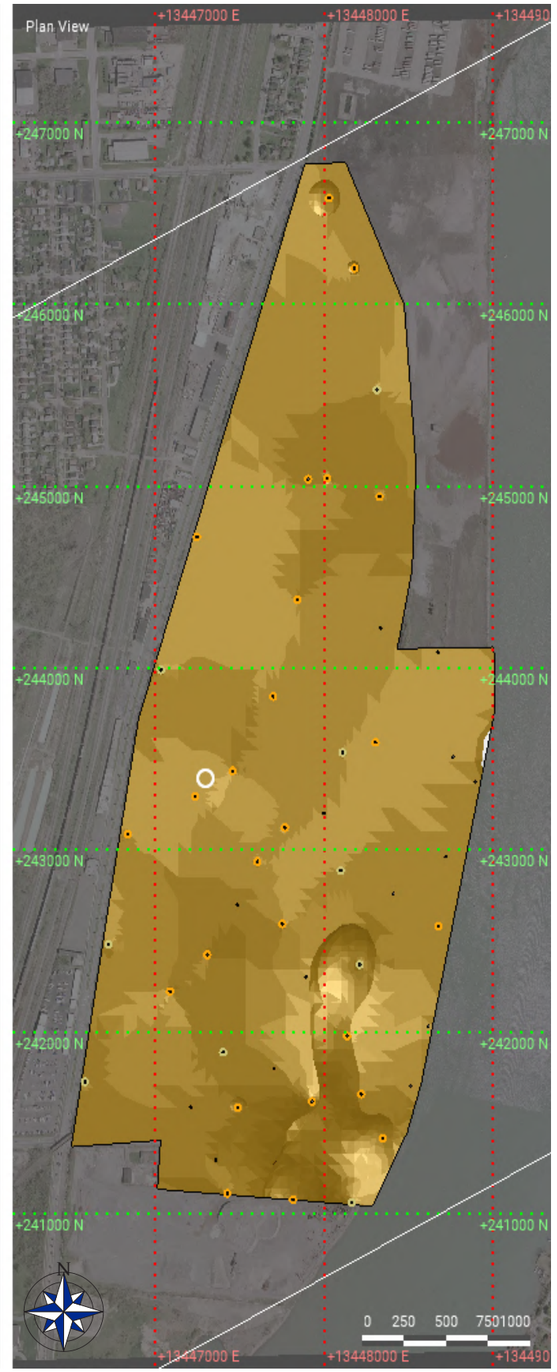


Figure 4
Top of Clay Surface
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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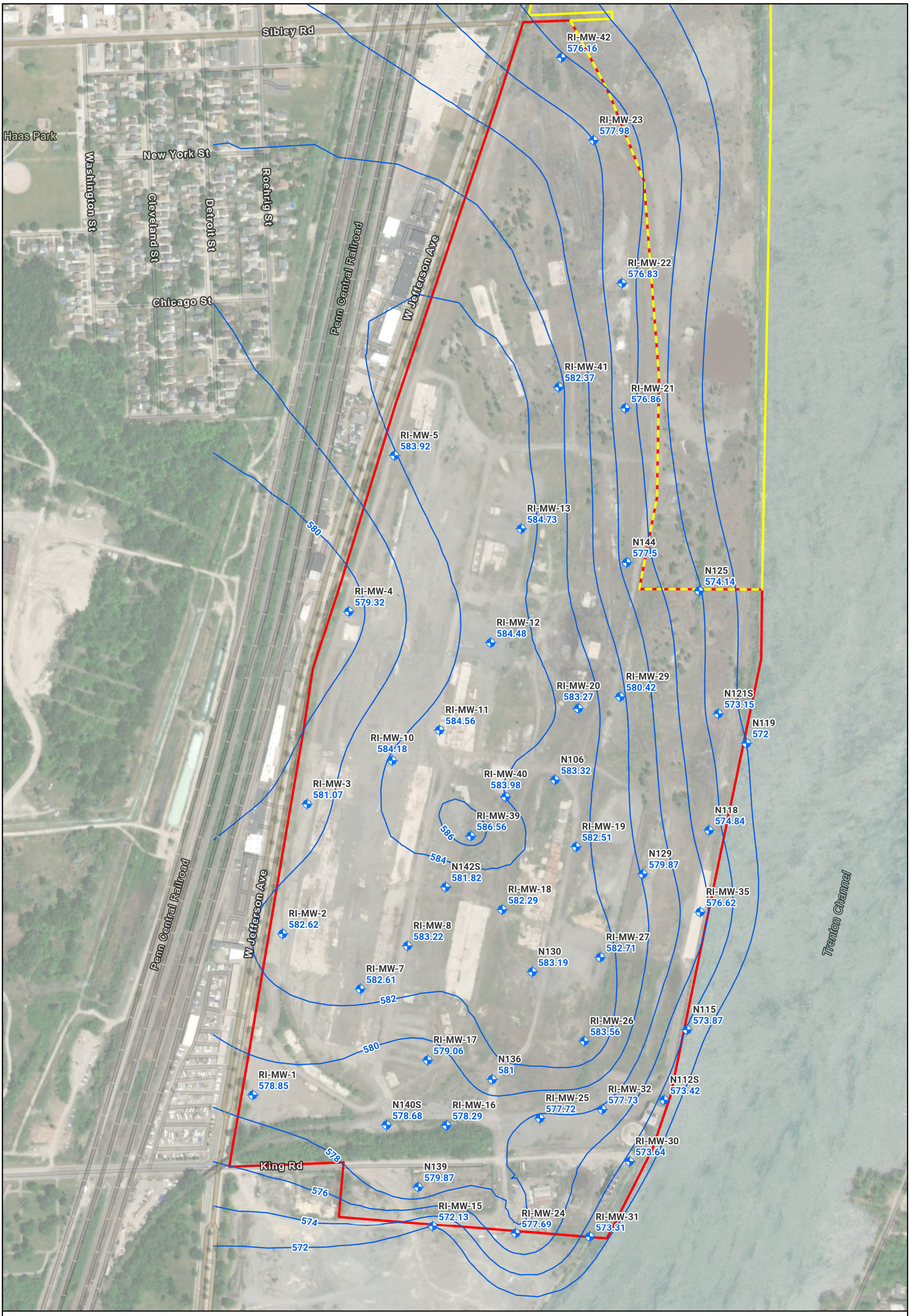
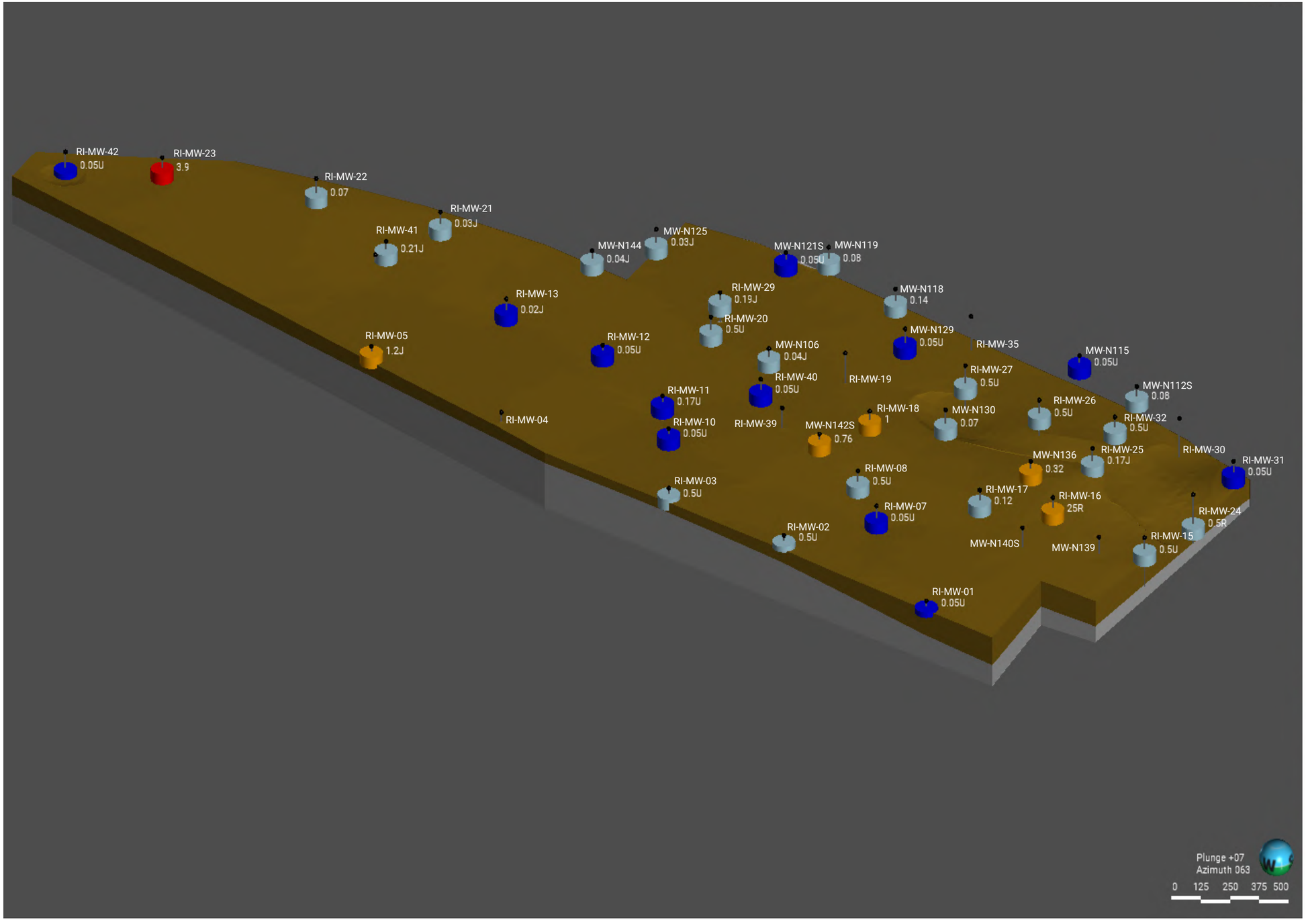


CDM Smith

Figure 5
Groundwater Contour Plan
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan



Project Action Limit (PAL):
0.28 micrograms per liter (µg/L)

TCE (µg/L)

- > 2.8
- > 0.28
- > 0.028
- < 0.028

Lithology

- Clay
- Bedrock

Figure 6
Groundwater Results - Trichloroethene (TCE)
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith

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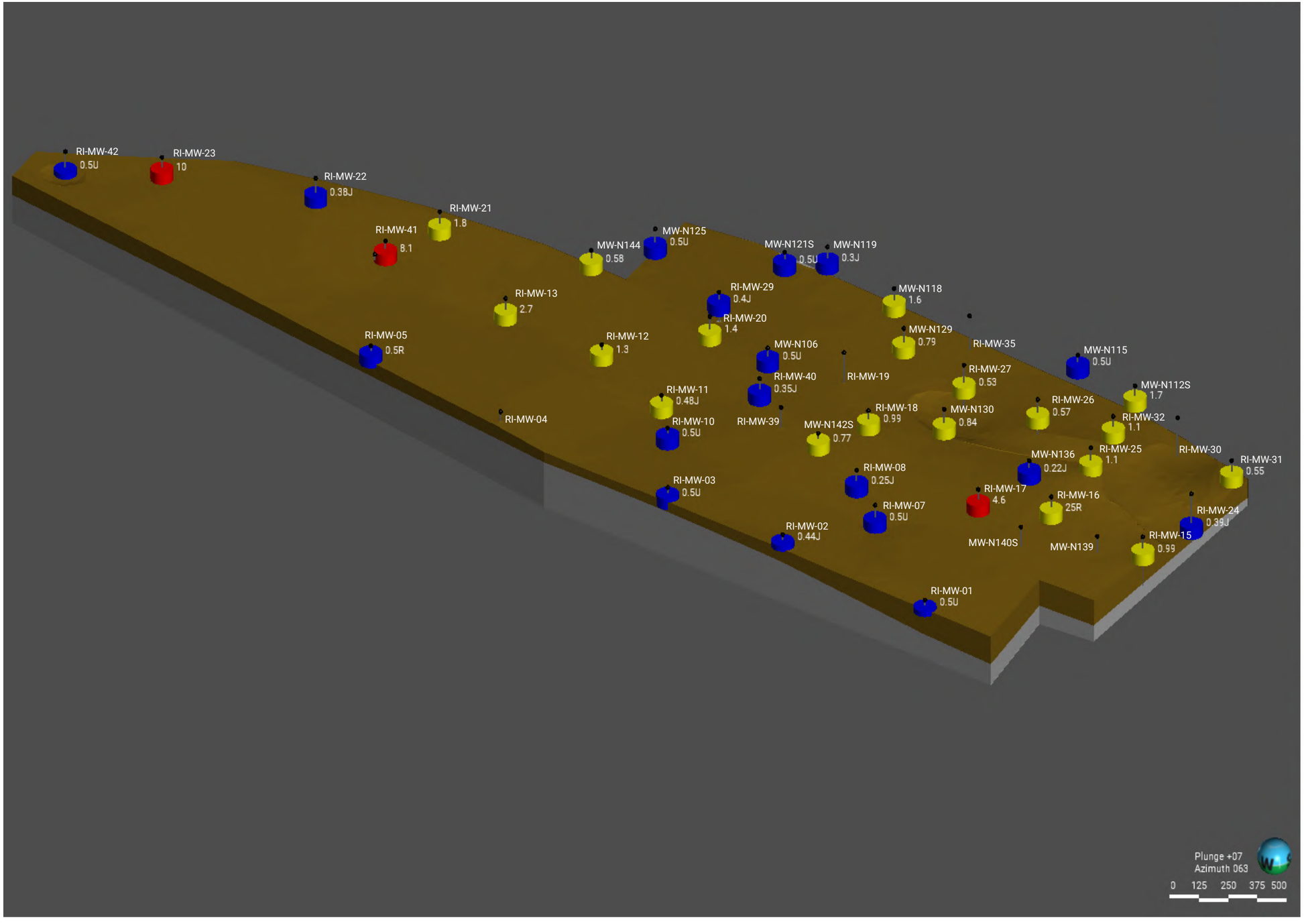
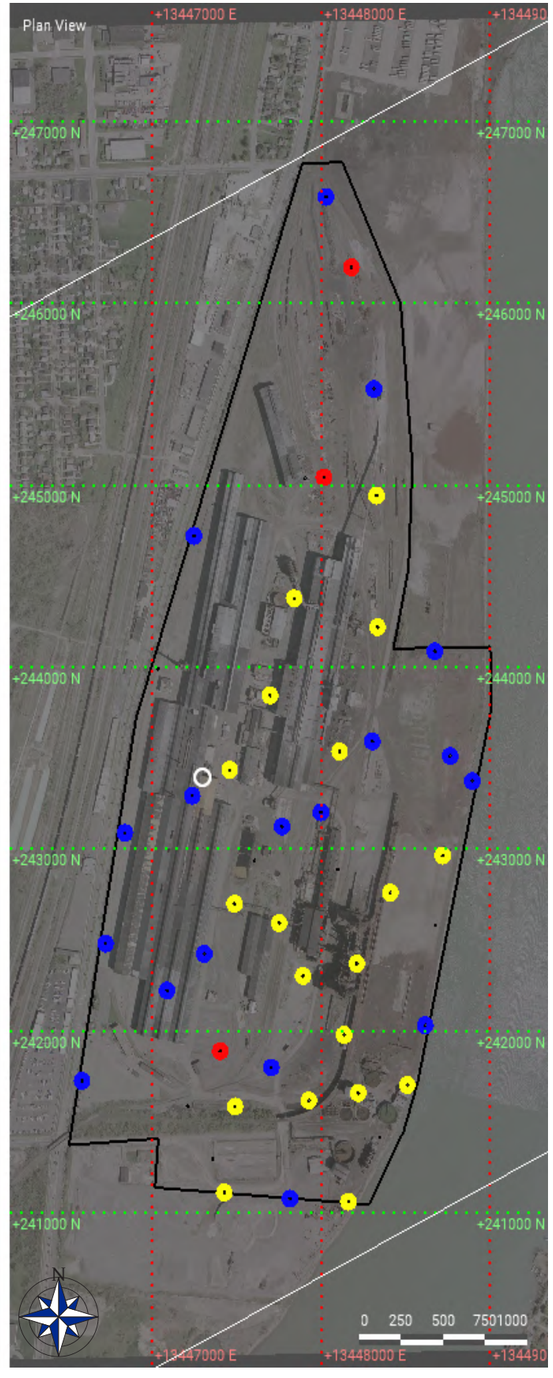




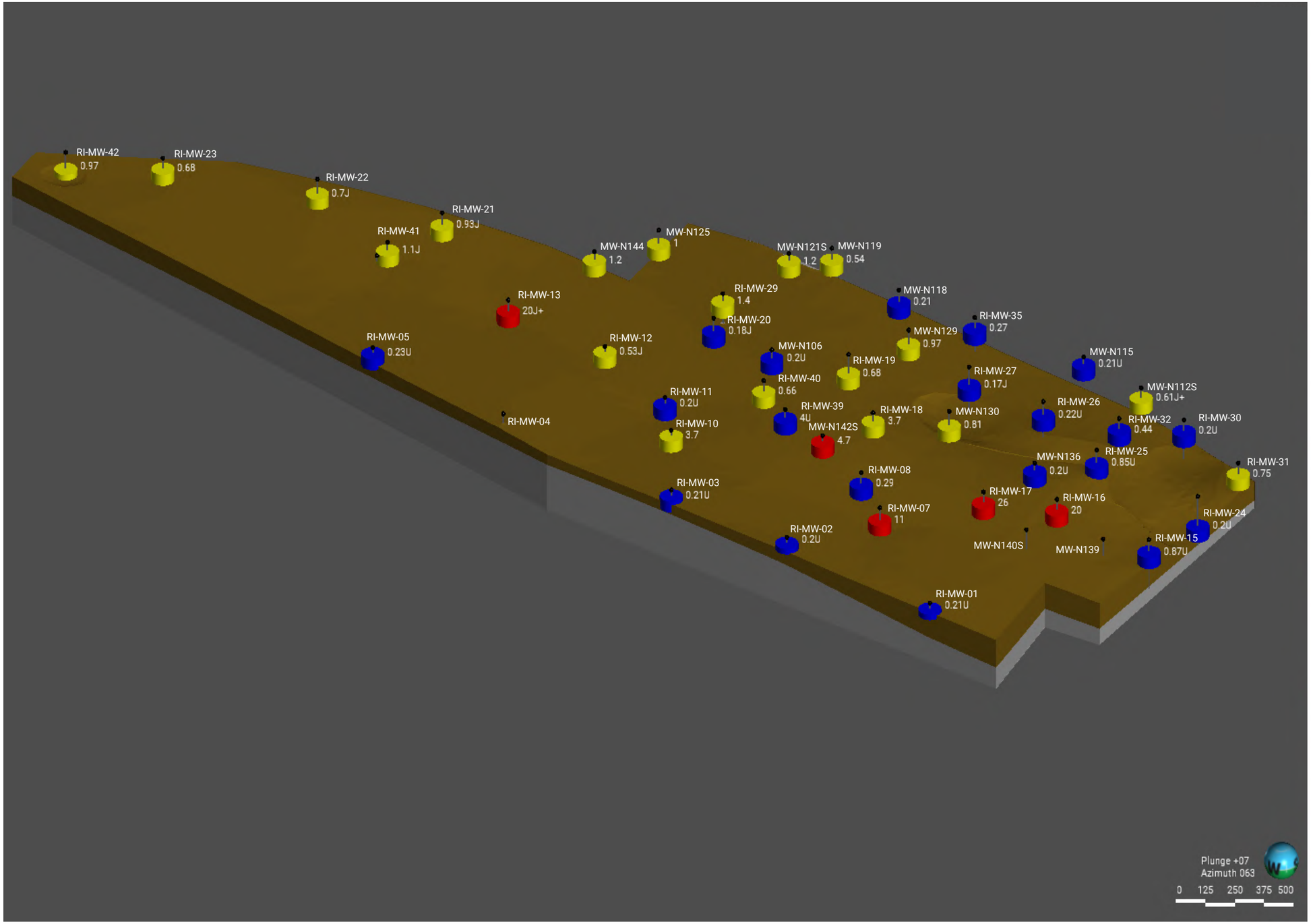
Project Action Limit (PAL):
0.46 micrograms per liter (µg/L)

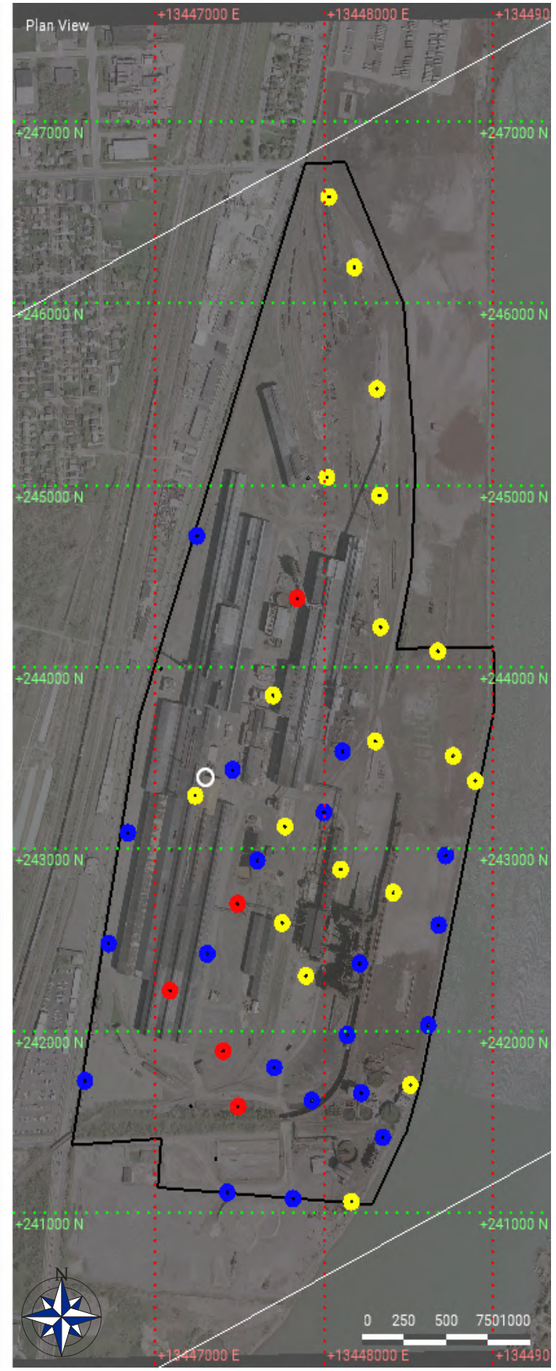
Benzene (µg/L)
- > 4.6
- > 0.46
- < 0.46

Lithology
- Clay
- Bedrock

Figure 7
Groundwater Results - Benzene
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith





Project Action Limit (PAL):
0.46 micrograms per liter (µg/L)

1,4-Dioxane (µg/L)

- > 4.6
- > 0.46
- < 0.46

Lithology

- Clay
- Bedrock

Figure 8
Groundwater Results - 1,4-Dioxane
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith

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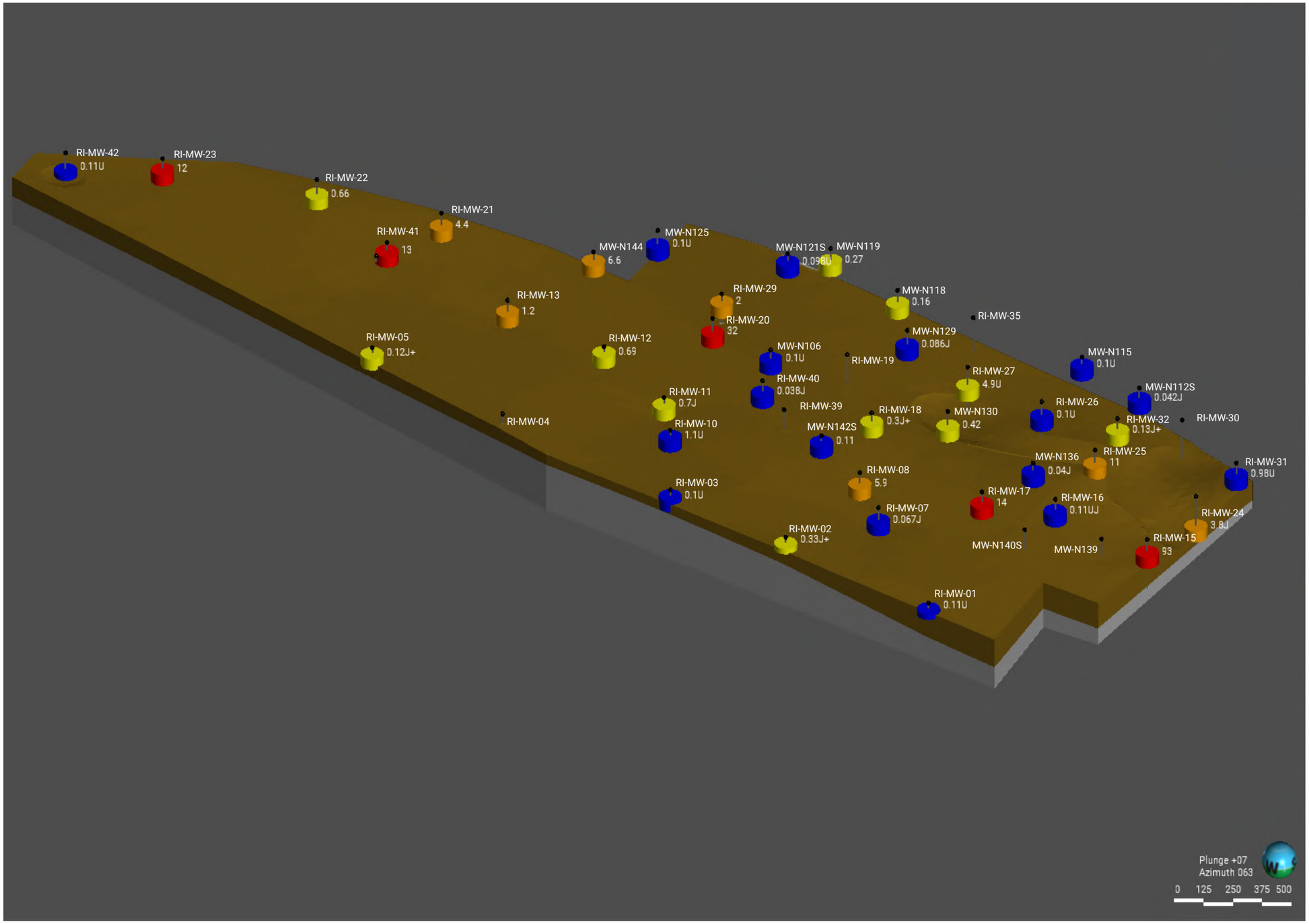
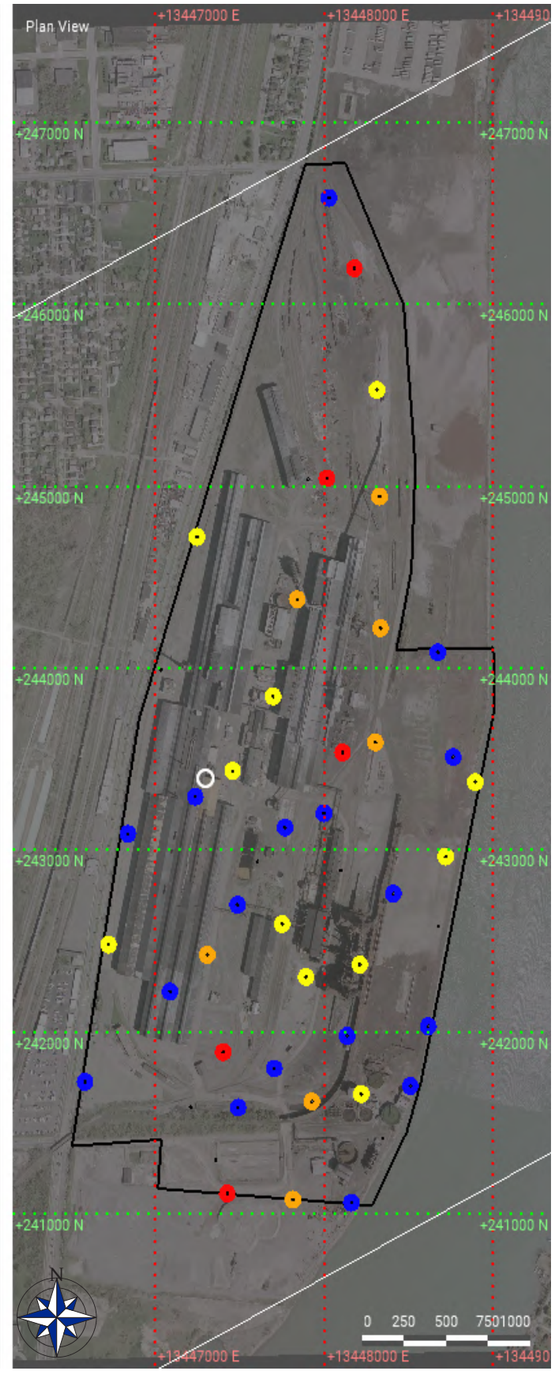




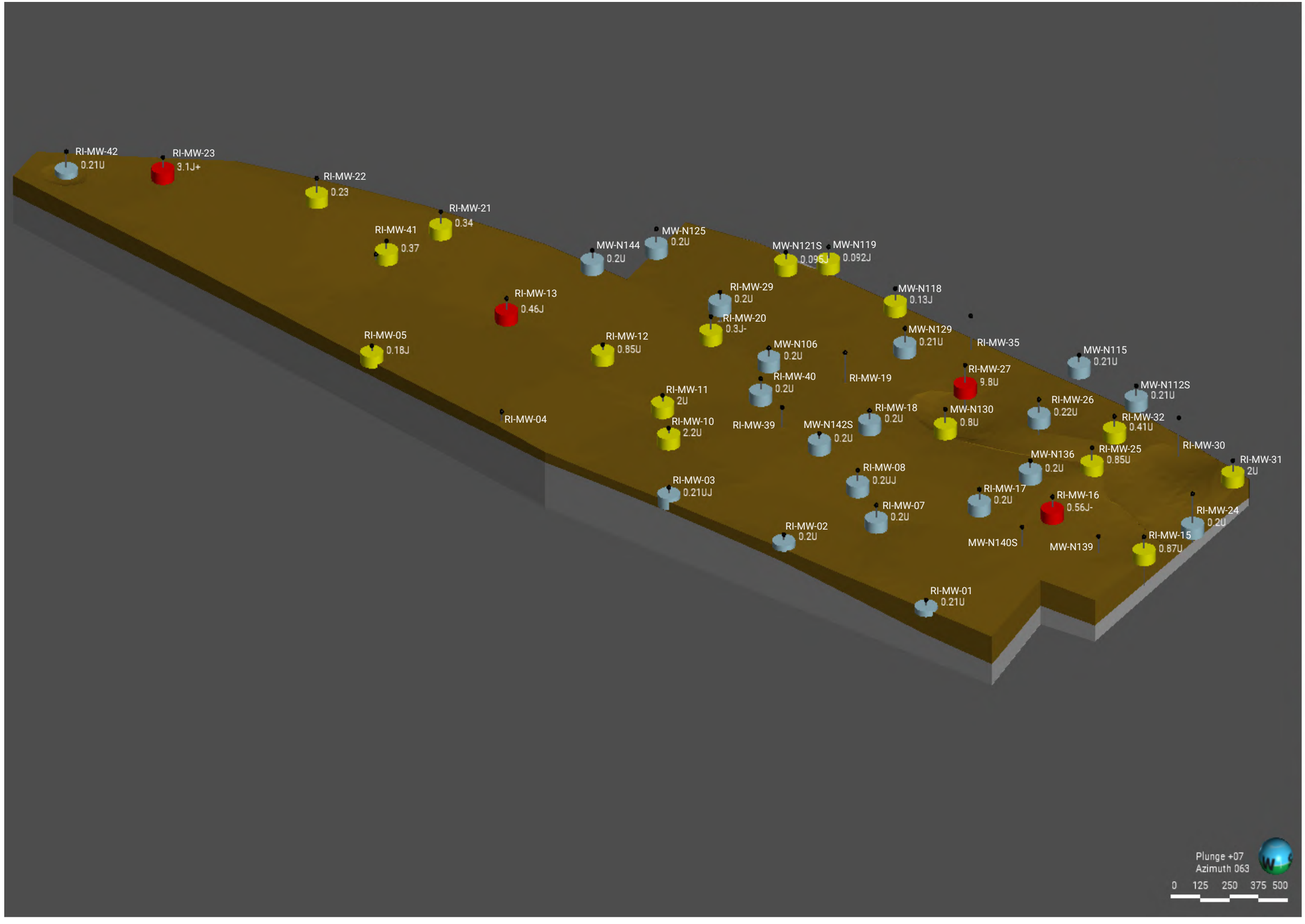
Project Action Limit (PAL):
0.12 micrograms per liter (µg/L)

Naphthalene (µg/L)
- > 12
- > 1.2
- > 0.12
- < 0.12

Lithology
- Clay
- Bedrock

Figure 9
Groundwater Results - Naphthalene
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith



Project Action Limit (PAL):
0.041 micrograms per liter (µg/L)

Pentachlorophenol (µg/L)

- > 0.41
- > 0.041
- > 0.0041
- < 0.0041

Lithology

- Clay
- Bedrock

Figure 10
Groundwater Results - Pentachlorophenol
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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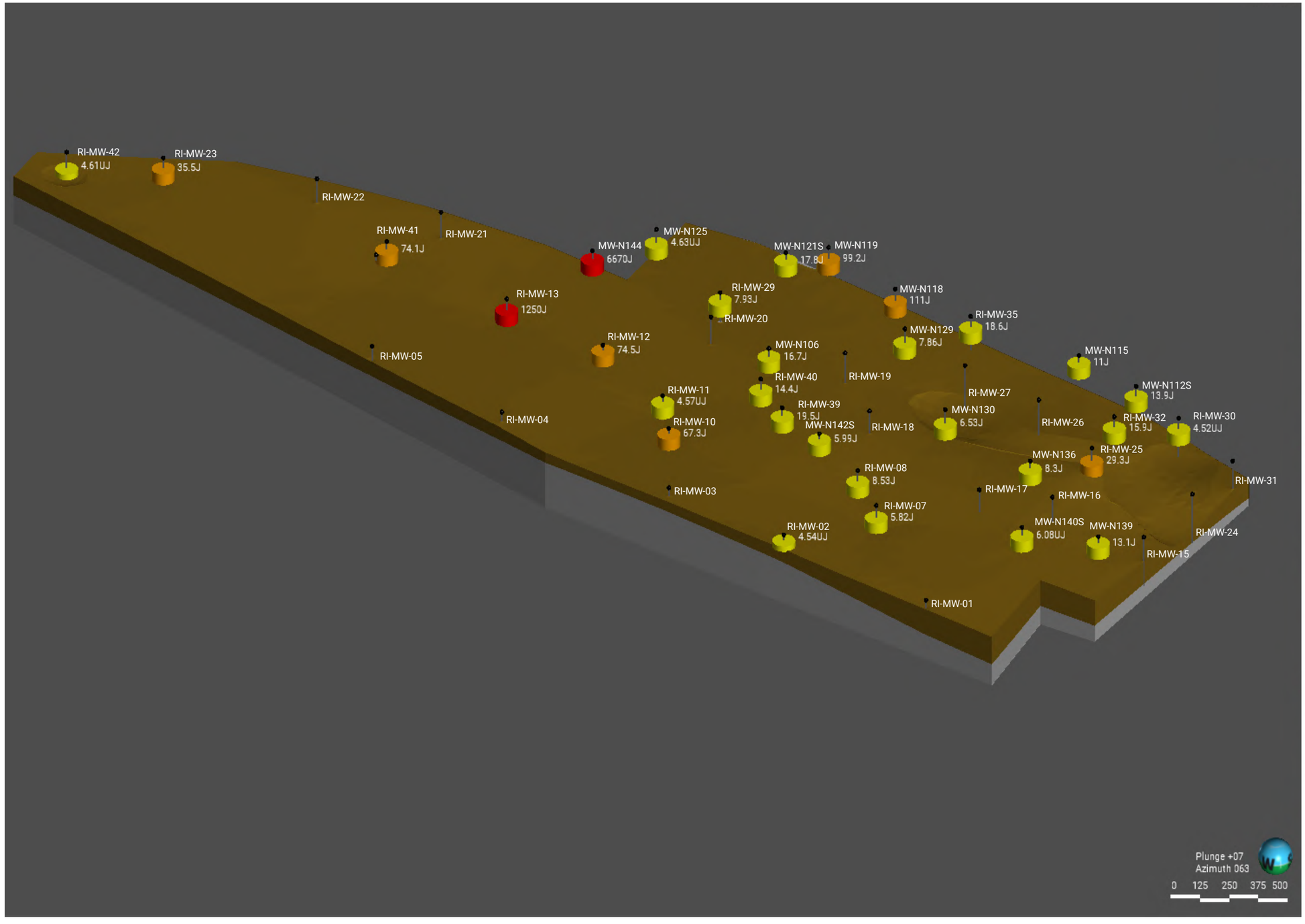

Project Action Limit (PAL):
0.02 nanograms per liter (ng/L)

PFOS (ng/L)
- > 200
- > 20
- > 2
- < 2

Lithology
- Clay
- Bedrock

Figure 11
Groundwater Results - PFOS
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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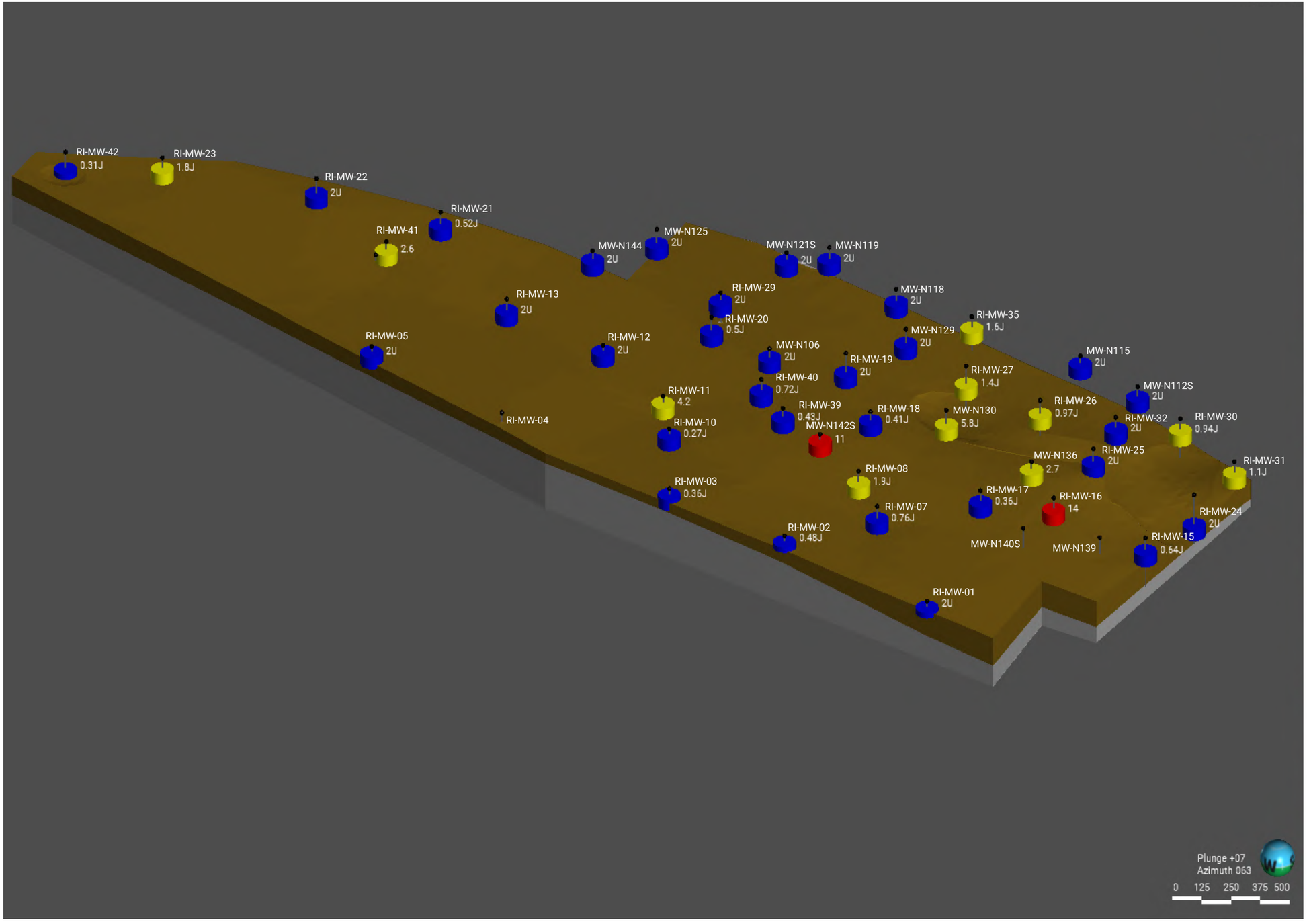

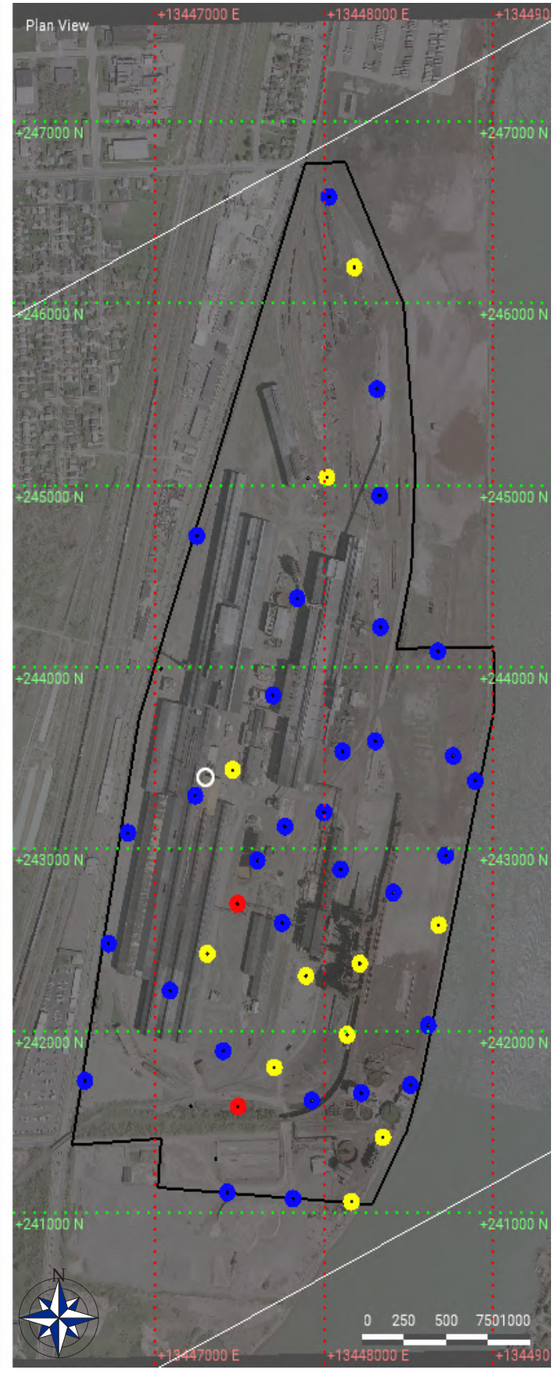

Project Action Limit (PAL):
0.78 micrograms per liter (µg/L)

Antimony (µg/L)
- > 7.8
- > 0.78
- < 0.78

Lithology
- Clay
- Bedrock

Figure 12
Groundwater Results - Antimony
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith

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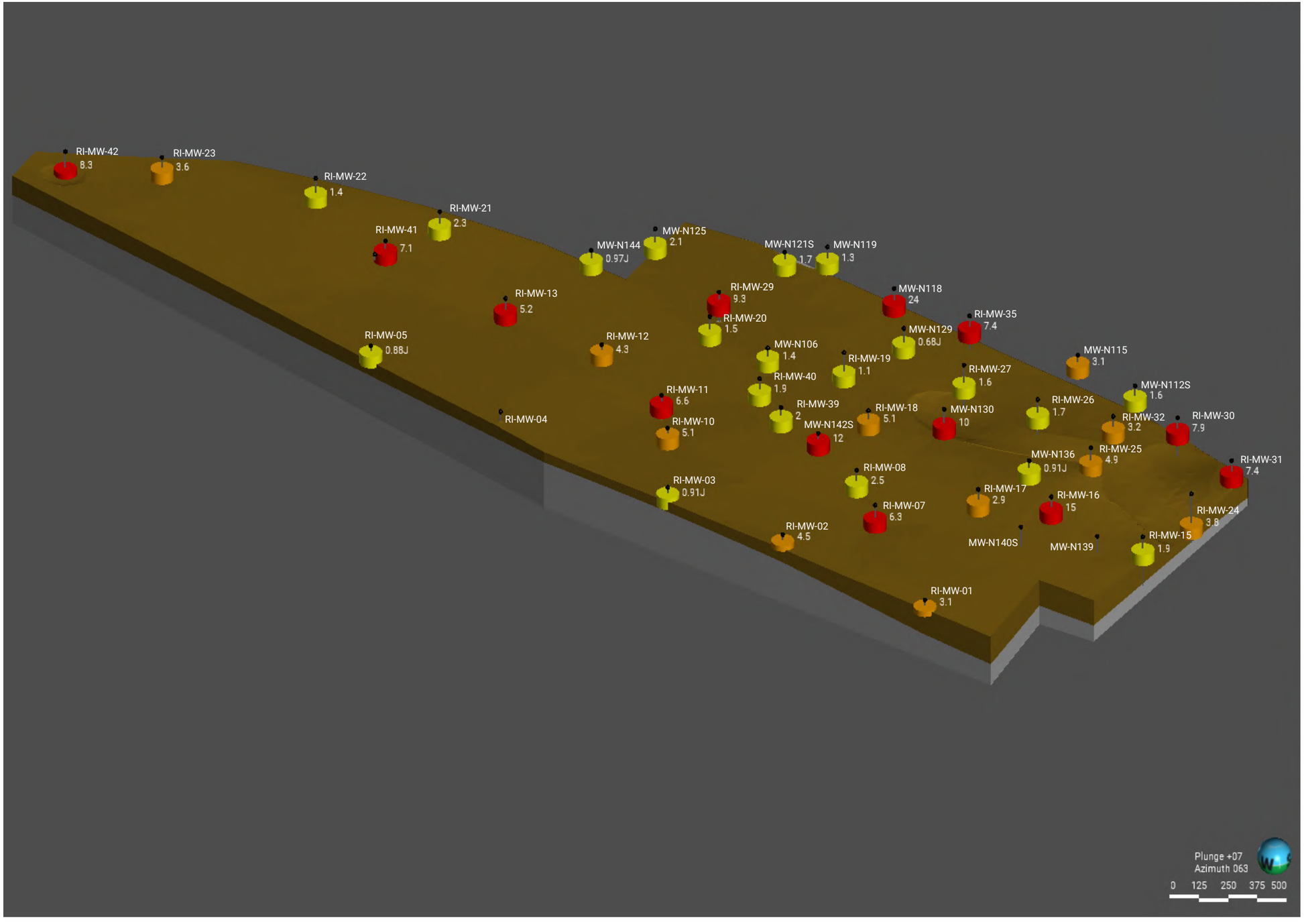
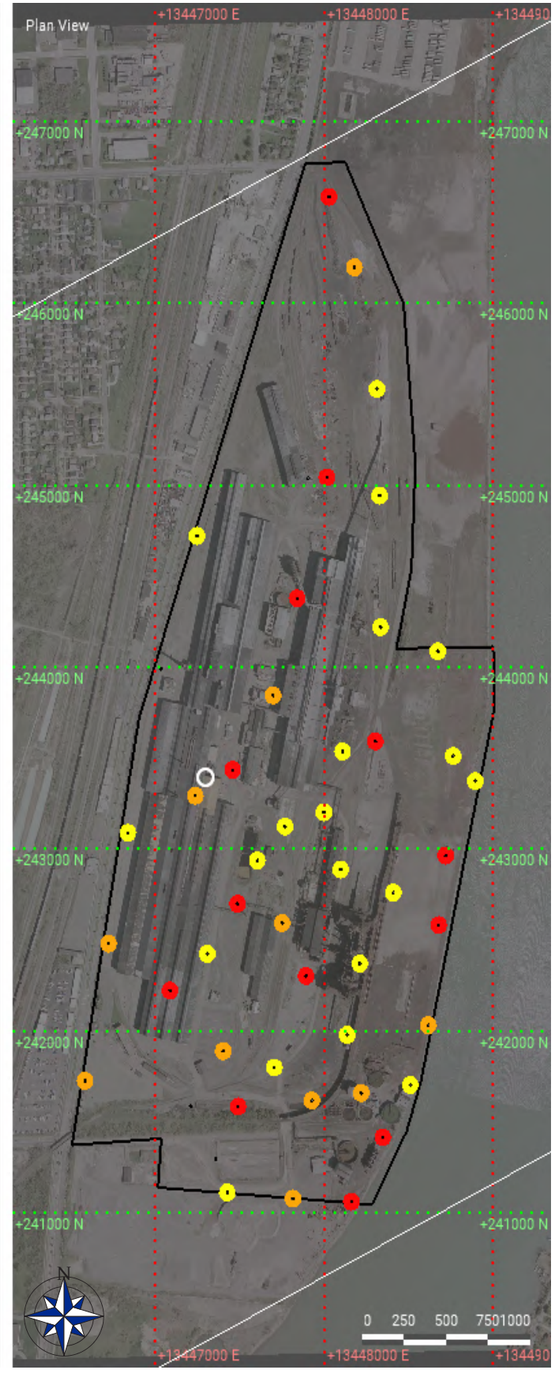




Project Action Limit (PAL):
0.052 micrograms per liter (µg/L)

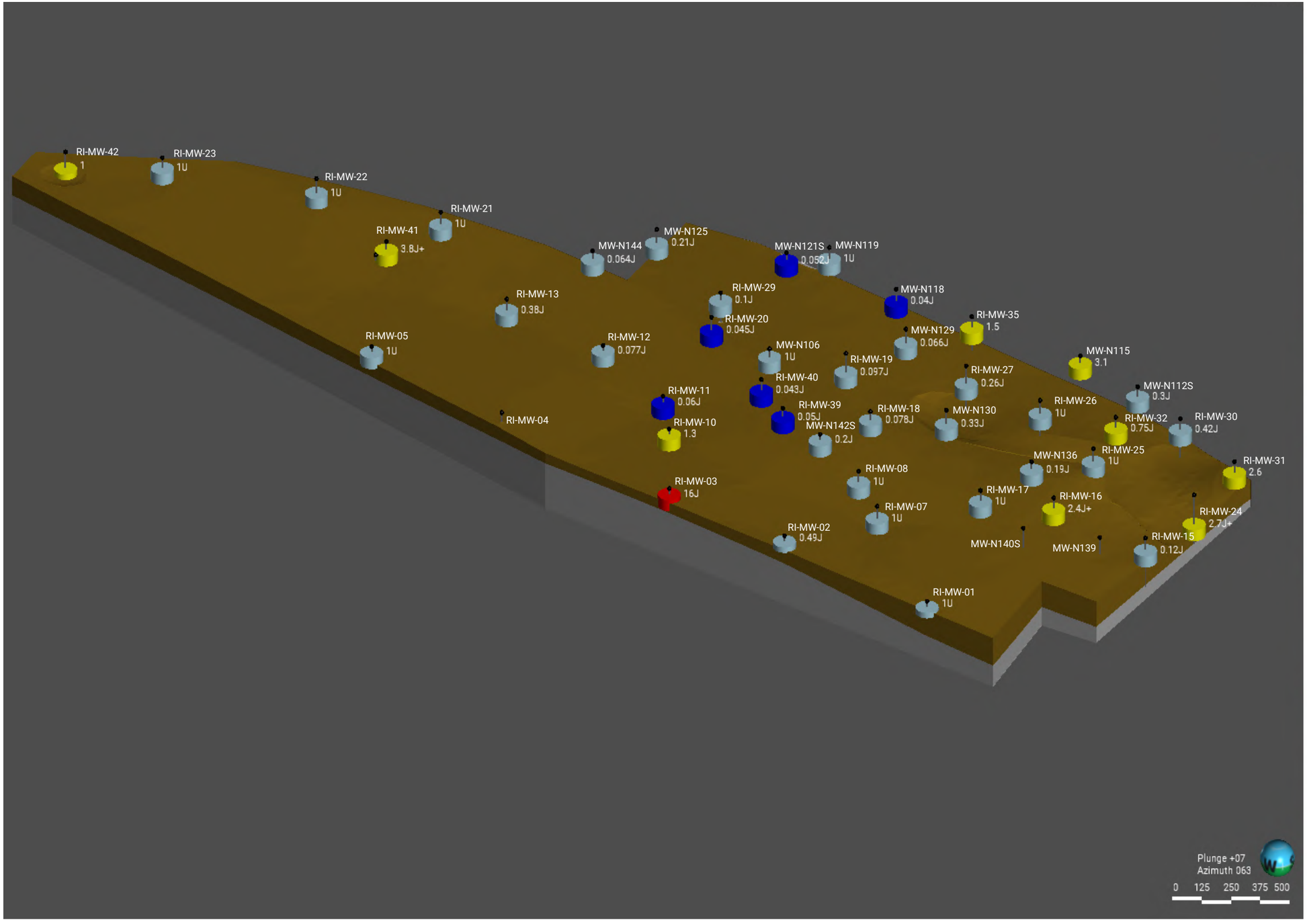
Arsenic (µg/L)

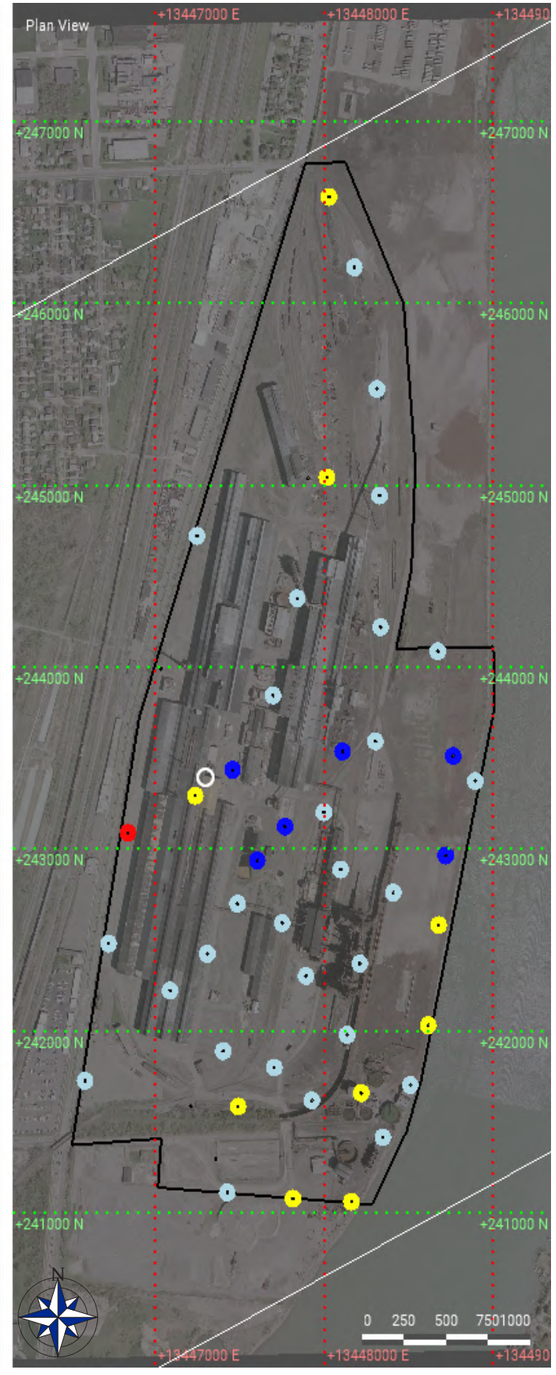
- > 5.2
- > 2.6
- < 2.6

Lithology

- Clay
- Bedrock

Figure 13
Groundwater Results - Arsenic
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan





Project Action Limit (PAL):
0.6 micrograms per liter (µg/L)

Cobalt (µg/L)

- > 6
- > 0.6
- > 0.06
- < 0.06

Lithology

- Clay
- Bedrock

Figure 14
Groundwater Results - Cobalt
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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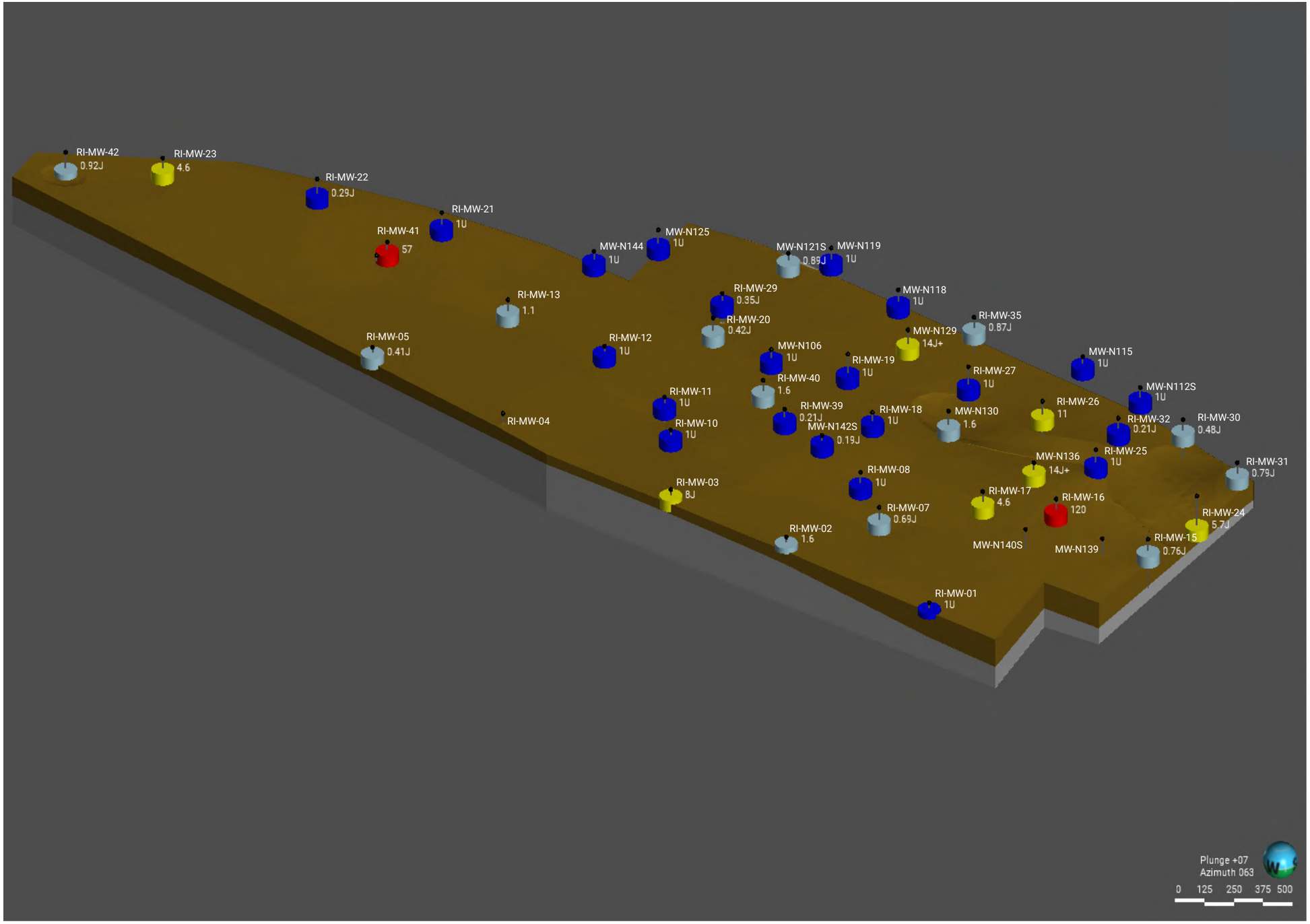

Project Action Limit (PAL):
4 micrograms per liter (µg/L)

Lead (µg/L)
- > 40
- > 4
- > 0.04
- < 0.04

Lithology
- Clay
- Bedrock

Figure 15
Groundwater Results - Lead
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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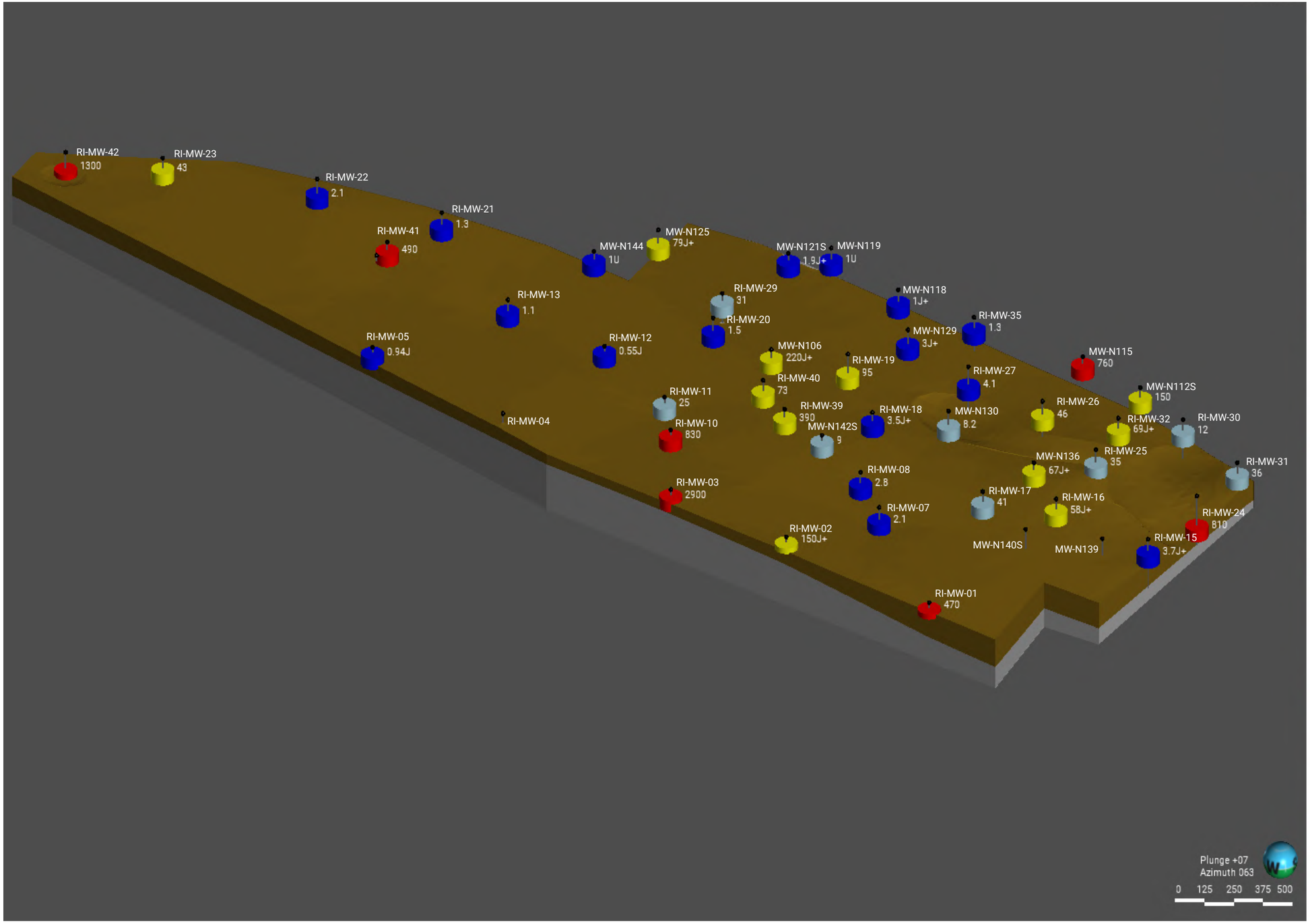

Project Action Limit (PAL):
43 micrograms per liter (µg/L)

Manganese (µg/L)

- > 430
- > 43
- > 4.3
- < 4.3

Lithology

- Clay
- Bedrock

Figure 16
Groundwater Results - Manganese
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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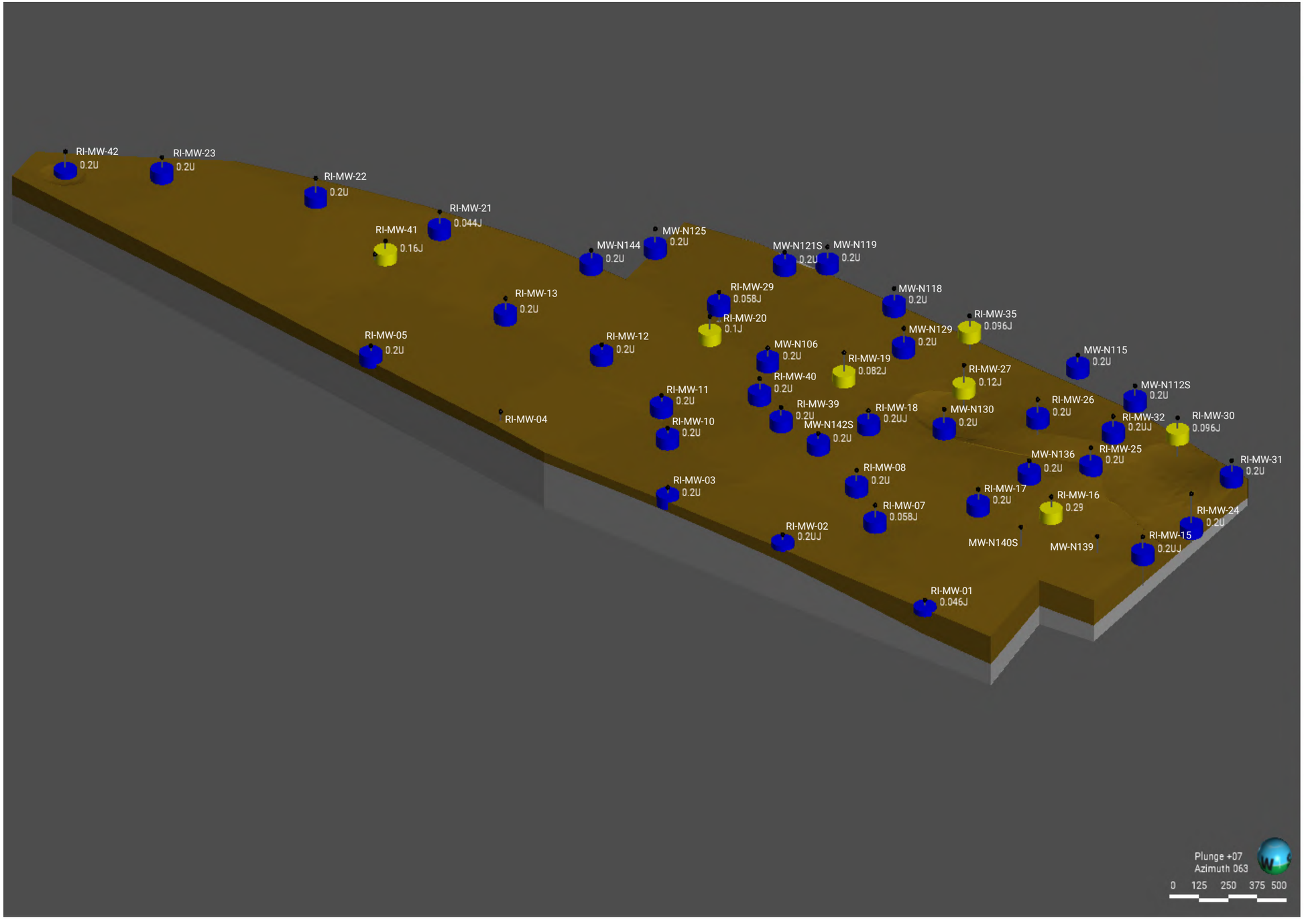
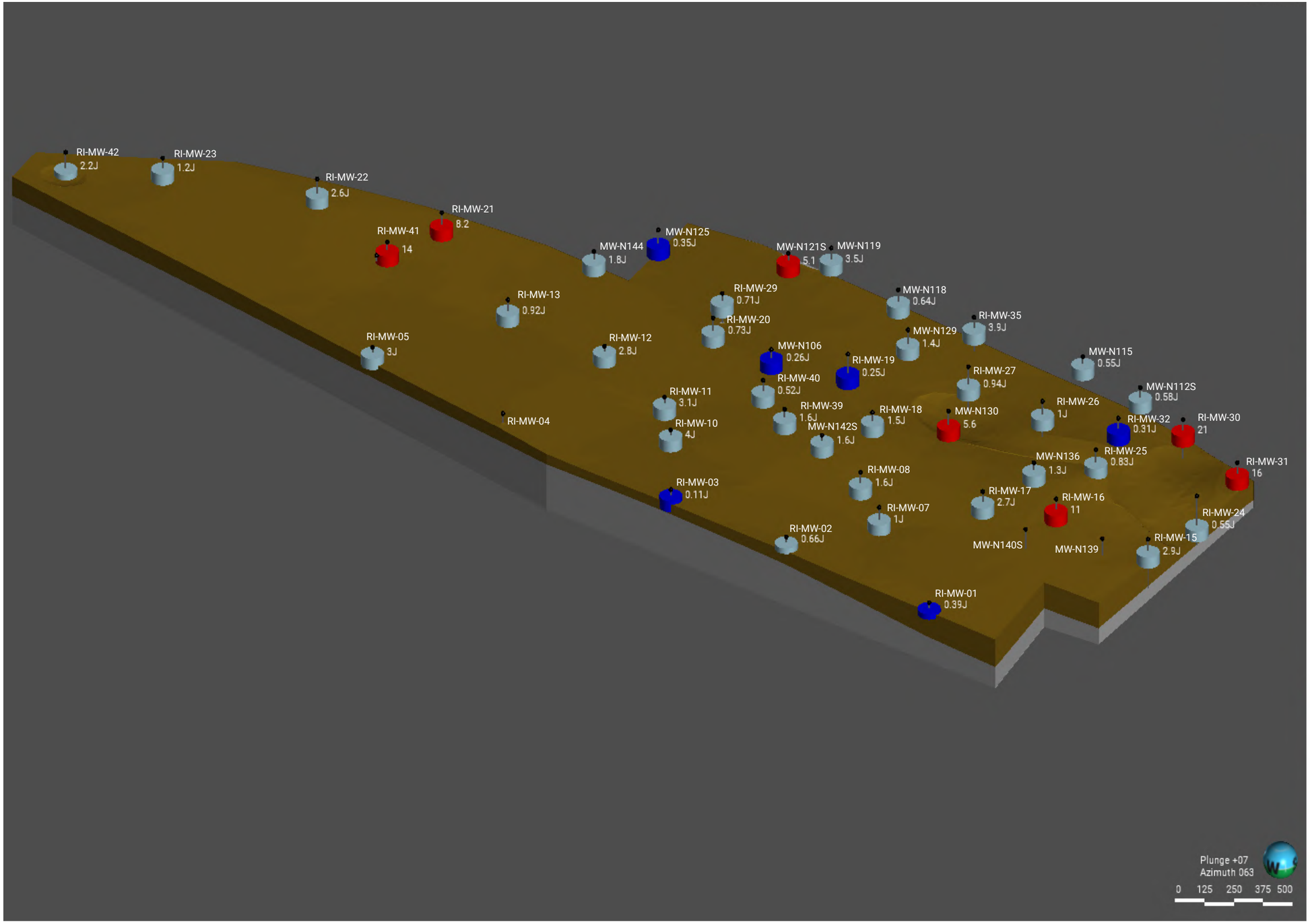


Project Action Limit (PAL):
0.063 micrograms per liter (µg/L)

Mercury (µg/L)
- > 0.063
- < 0.063

Lithology
- Clay
- Bedrock

Figure 17
Groundwater Results - Mercury
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan



Project Action Limit (PAL):
4.5 micrograms per liter (µg/L)

Vanadium (µg/L)
- > 4.5
- > 0.45
- < 0.45

Lithology
- Clay
- Bedrock

Figure 18
Groundwater Results - Vanadium
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

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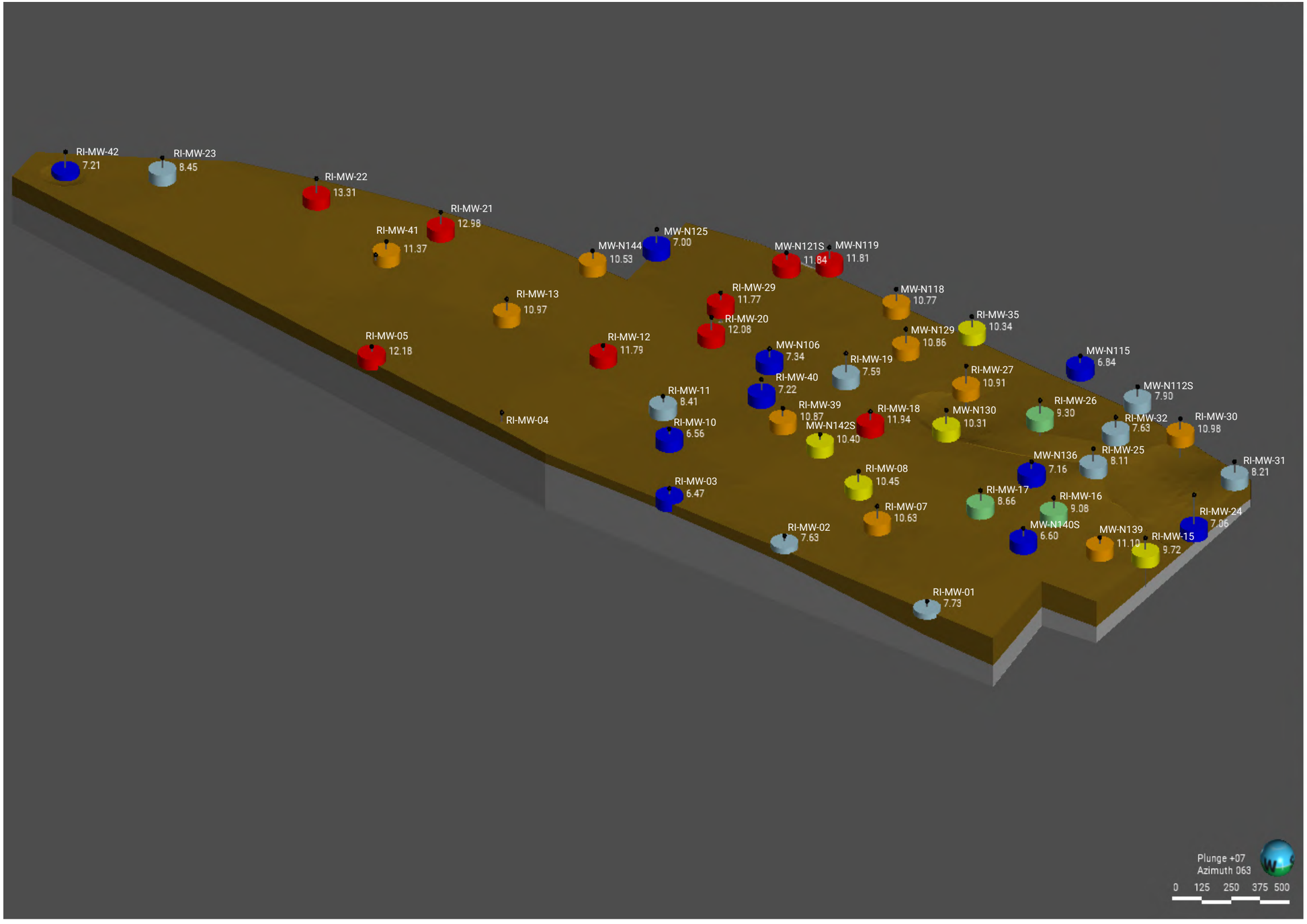

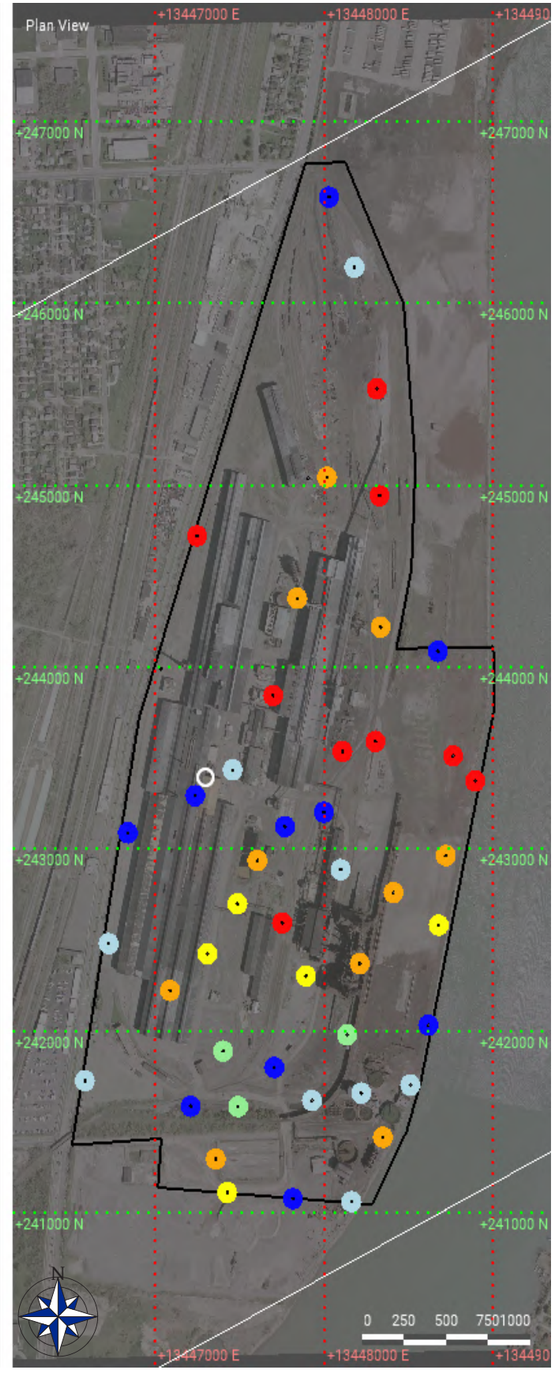

Groundwater pH

- > 11.5
- > 10.5
- > 9.5
- > 8.5
- > 7.5
- < 7.5

Lithology

- Clay
- Bedrock

Figure 19
Groundwater Results - pH
McLouth Steel Corp Superfund Site
Trenton, Wayne County, Michigan

CDM Smith

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PROPOSED YEAR 2 SAMPLING LOCATIONS

- Single Overburden Well
- Cluster Overburden Well (2x Wells)
- Soil Boring

RI-MW/SB-42
RI-MW/SB-23
RI-MW/SB-43
RI-MW/SB-46
RI-MW/SB-48
RI-MW/SB-44
RI-MW/SB-22
RI-MW/SB-47
RI-MW/SB-45
RI-MW/SB-49
RI-MW/SB-41
RI-MW/SB-14
RI-MW/SB-21
RI-MW/SB-5
RI-MW/SB-50
RI-MW/SB-51
RI-MW/SB-52
RI-MW/SB-13
MW-N144
RI-MW/SB-4
MW-N125
RI-MW/SB-53
RI-MW/SB-12
RI-MW/SB-59
RI-MW/SB-60
RI-MW/SB-29
RI-MW/SB-54
RI-MW/SB-20
MW-N121S
RI-MW/SB-11
McLouth Steel Products
RI-MW/SB-37
MW-N119
RI-MW/SB-55
RI-SB-67
RI-MW/SB-10
MW-N106
RI-MW/SB-61
RI-MW/SB-62
RI-MW/SB-40
RI-MW/SB-3
RI-MW/SB-36
RI-SB-68
MW-N118
RI-SB-69
RI-MW/SB-39
RI-MW/SB-19
RI-MW/SB-28
RI-MW/SB-9
MW-N129
MW-N142S
RI-MW/SB-56
RI-MW/SB-18
RI-MW/SB-35
RI-MW/SB-2
RI-MW/SB-8
MW-N130
RI-MW/SB-63
RI-MW/SB-64
RI-MW/SB-27
RI-MW/SB-7
RI-MW/SB-57
RI-MW/SB-34
RI-MW/SB-26
MW-N115
RI-MW/SB-38
MW-N136
RI-MW/SB-17
RI-MW/SB-58
RI-MW/SB-1
MW-N112S
RI-MW/SB-33
RI-MW/SB-6
RI-SB-71
RI-MW/SB-16
MW-N140S
RI-SB-72
RI-MW/SB-32
RI-MW/SB-25
RI-SB-70
RI-SB-73
RI-SB-75
RI-SB-76
RI-SB-74
RI-MW/SB-30
MW-N139
RI-SB-77
RI-MW/SB-65
RI-MW/SB-66
RI-MW/SB-15
RI-MW/SB-24
RI-MW/SB-31

Washington St
Cleveland Ave
Detroit Ave
Roehrig St
Chicago Ave
Norfolk Southern
W Jefferson Ave
CN North America
Canadian National
King Rd
King Rd
Detroit River
Detroit River

Notes:
1. Year 2 sampling locations are subject to change.

N

0 400 800 Feet

NAD 1983 StatePlane Michigan South FIPS 2113 Feet

Legend

- Well Installation and Development Complete - Year 1
- Monitoring Well/Boring Not Installed - Year 1
- Monitoring Well (2005) Not redeveloped
- Site Boundary

Figure 20
Proposed Year 2 Sampling Locations
McLouth Steel Corp Superfund Site
Trenton, Wayne County. Michigan

CDM Smith

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Attachment A

Field Documentation

Table 1a - Synoptic Water Level Measurements

Date	Time	Well Number	Depth to Water (feet)	Total Depth (feet)	Thickness of Any Floating Product	PID Readings
11/3/2023	0914	MW-N112S	9.63	19.09	-	0.1
11/3/2023	0921	MW-N115	9.21	16.89	-	0.0
11/3/2023	1241	MW-N118	9.71	21.78	-	0.1
11/3/2023	1048	MW-N119	11.15	23.12	-	0.2
11/3/2023	1249	MW-N121S	11.57	29.13	-	0.1
11/3/2023	1040	MW-N125	11.39	22.84	-	1.0
11/3/2023	1253	MW-N129	10.10	22.38	-	0.1
11/3/2023	0950	MW-N136	11.51	21.89	-	1.6
11/3/2023	1148	MW-N139	4.68	16.09	-	0.2
11/3/2023	1231	MW-N140S	14.48	17.87	-	4.2
11/3/2023	1001	MW-N142S	10.45	23.01	-	1.3
11/3/2023	1020	MW-N144	15.99	18.15	-	0.0
11/3/2023	1309	RI-MW-01	1.48	9.92	-	0.3
11/3/2023	0825	RI-MW-02	7.19	12.39	-	0.4
11/3/2023	0830	RI-MW-03	8.45	18.32	-	0.0
11/3/2023	0900	RI-MW-04	12.34	12.73	-	0.1
11/3/2023	0920	RI-MW-05	8.19	17.84	-	1.4
11/3/2023	0945	RI-MW-07	10.05	24.36	-	0.4
11/3/2023	0950	RI-MW-08	8.45	23.19	-	0.3
11/3/2023	1100	RI-MW-10	8.20	18.30	-	0.5
11/3/2023	1115	RI-MW-11	7.42	19.14	-	0.4
11/3/2023	1135	RI-MW-12	8.10	18.22	-	0.4
11/3/2023	1140	RI-MW-13	7.45	23.42	-	0.7
11/3/2023	1305	RI-MW-15	4.59	20.68	-	4.4
11/3/2023	1235	RI-MW-16	15.08	24.11	-	1.3
11/3/2023	0935	RI-MW-17	13.36	22.95	-	21.2
11/3/2023	1005	RI-MW-18	10.22	21.49	-	0.9
11/3/2023	1205	RI-MW-19	11.60	30.09	-	0.7
11/3/2023	1200	RI-MW-20	9.11	25.38	-	2.2
11/3/2023	1155	RI-MW-21	15.57	24.28	-	0.8
11/3/2023	1150	RI-MW-22	17.03	26.82	-	2.8
11/3/2023	1145	RI-MW-23	13.66	22.32	-	2.2
11/3/2023	1215	RI-MW-25	13.34	24.55	-	1.2
11/3/2023	0829	RI-MW-26	11.02	23.87	-	0.1
11/3/2023	0840	RI-MW-27	15.42	29.42	-	1.1
11/3/2023	0849	RI-MW-29	11.39	19.61	-	0.0
11/3/2023	1201	RI-MW-30	8.78	19.84	-	0.3
11/3/2023	1147	RI-MW-31	7.73	20.42	-	1.1
11/3/2023	0940	RI-MW-32	9.76	23.03	-	0.3
11/3/2023	0904	RI-MW-35	7.62	23.36	-	5.1
11/3/2023	1020	RI-MW-39	5.61	21.49	-	0.1
11/3/2023	1040	RI-MW-40	8.09	23.32	-	0.6
11/3/2023	1051	RI-MW-41	9.57	-	-	9.1
11/3/2023	-	RI-MW-42	Level not collected due to well construction rework			

Table 1b - Groundwater Field Parameter Measurement Results

Monitoring Well	pH (SU)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox Potential (mV)	Turbidity (NTU)	Ferrous Iron Results (mg/L)	Hexavalent Chromium (mg/L)
RI-MW-01	7.73	0.612	0.00	16.34	-2	17.3	0.00	0.00
RI-MW-02	7.63	0.747	1.26	14.80	-280	16.8	0.00	0.00
RI-MW-02A	-	-	-	-	-	-	0.08	0.00
RI-MW-03	6.47	0.707	0.37	15.84	-142	4.6	0.32	0.00
RI-MW-05	12.18	4.730	0.00	15.90	-239	3.2	0.85	0.04
RI-MW-07	10.63	1.640	6.44	15.67	-197	17.6	0.17	0.00
RI-MW-08	10.45	2.220	9.33	14.22	-205	9.1	0.33	0.02
RI-MW-10	6.56	2.600	0.00	9.78	-115	0.0	0.99	0.00
RI-MW-11	8.41	0.749	0.00	7.72	-131	15.5	2.30	0.06
RI-MW-12	11.79	3.010	0.00	8.09	-268	0.0	0.31	0.02
RI-MW-13	10.97	0.713	1.59	7.67	-197	0.0	1.87	0.00
RI-MW-15	9.72	0.940	8.48	15.38	-432	5.3	0.06	0.02
RI-MW-16	9.08	0.895	0.00	13.95	-261	111.0	0.00	0.00
RI-MW-17	8.66	0.441	0.00	12.44	-97	29.2	0.00	0.00
RI-MW-18	11.94	2.070	0.00	16.90	-337	6.4	1.43	0.00
RI-MW-19	7.59	0.373	4.28	13.14	-94	11.5	0.06	0.00
RI-MW-20	12.08	2.610	0.00	12.87	-304	0.0	0.87	0.01
RI-MW-21	12.98	2.510	0.00	14.12	-332	0.0	2.07	0.00
RI-MW-22	13.31	3.870	0.00	14.38	-238	0.0	2.02	0.00
RI-MW-23	8.45	0.316	0.00	14.61	-293	7.2	0.00	0.00
RI-MW-23A	-	-	-	-	-	-	0.08	0.02
RI-MW-24	7.06	1.630	0.00	15.74	-278	0.0	0.12	0.00
RI-MW-25	8.11	0.568	10.88	13.34	-115	9.8	0.00	0.01
RI-MW-26	9.30	0.891	4.87	16.18	-184	13.6	0.15	0.00
RI-MW-27	10.91	2.460	5.91	15.30	-218	17.0	1.54	0.02
RI-MW-29	11.77	3.610	10.89	8.59	-176	0.0	0.00	0.03
RI-MW-30	10.98	1.520	5.96	12.58	-212	17.6	0.29	0.00
RI-MW-31	8.21	1.970	6.47	6.45	-141	301.0	0.19	0.00
RI-MW-32	7.63	0.645	9.50	15.84	-98	2.7	0.00	0.01
RI-MW-35	10.34	1.280	0.00	12.34	-264	8.0	0.00	0.01
RI-MW-35A	-	-	-	-	-	-	0.00	0.02
RI-MW-39	10.87	2.280	5.97	13.14	-117	0.8	0.12	0.00
RI-MW-40	7.22	1.640	0.00	5.71	-150	0.0	0.00	0.00
RI-MW-41	11.37	0.893	0.00	14.81	-205	37.6	0.00	0.00
RI-MW-42	7.21	0.826	0.00	4.45	-42	0.0	0.78	0.00
MW-N106	7.34	0.488	1.46	15.65	-234	0.0	0.55	0.00
MW-N112S	7.90	0.590	0.00	12.18	-160	0.0	0.13	0.02
MW-N115	6.84	0.844	0.18	12.58	-131	0.0	0.84	0.00
MW-N118	10.77	1.110	0.00	13.92	-389	0.0	0.00	0.00
MW-N119	11.81	3.160	7.51	12.99	-165	0.0	0.41	0.00
MW-N121S	11.84	2.530	0.00	13.26	-122	38.1	-	-
MW-N125	7.00	0.760	0.00	15.59	-169	2.2	0.62	0.00
MW-N129	10.86	0.996	1.54	12.38	-396	0.0	0.67	0.00
MW-N130	10.31	1.380	0.00	13.13	-294	0.0	0.47	0.02
MW-N136	7.16	1.010	6.48	7.03	-12	0.0	0.23	0.04
MW-N139	11.10	1.090	0.00	11.49	-286	0.0	0.32	0.01
MW-N140S	6.60	1.230	0.00	11.98	-132	51.4	0.88	0.00
MW-N142S	10.40	1.590	0.00	13.21	-306	0.0	0.11	0.02
MW-N142SA	-	-	-	-	-	-	0.20	0.03
MW-N144	10.53	0.792	9.02	15.30	-211	10.6	0.52	0.00

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
JW	10/13/23 JW	Rine	21455	SG2-602754	0807	✓

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	Rine	304-402690484 3/21/27	CO: H_2S: LEL: O_2:
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	/	0.0	/	/	/

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	—	—	—	—	Expected Reading	100 ppm
Actual Reading	—	—	—	—	Actual Reading	103.3 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J Miller	11-17-23	Field Environmental	U780666X	592-913102	7:05	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	Field Environmental	23-9997	CO: – H_2S: – LEL: – O_2: –
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	/	0.0 ppm	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	100.0 ppm
Actual Reading	/	/	/	/	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J Miller	11-17-23	Field Environmental	U74695X	592-911655	7:05	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	Field Environmental	23-9997	CO: — H_2S: — LEL: — O_2: —
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	—	0.0ppm	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	7	1	1	1	Expected Reading	100.00ppm
Actual Reading					Actual Reading	100.00 ppm

Instrument OK? ~~YES (Calibration Completed)~~ NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Vagenaker	11/15/23	Field Environmental	U746955X	592 - 911655	0655	YES

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9997	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0 ppm	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmaker	11/15/23	Field Environmental	078966X	592-913102	0655	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9997	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0 ppm	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenaar	11/14/23	Field Environmental	U746955X	592-911655	0700	YES

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-4497	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0 ppm	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmer	11/14/23	Field Environmental	U78066X	592-913102	0700	yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9497	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0 ppm	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓		✓	✓	Expected Reading	100.0 ppm
Actual Reading		✓			Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES	NO (IF NO COMPLETE INFORMATION BELOW)	
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenaar	11/13/23	Field Environmental	U78066X	592-913102	1095	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	~~U78066X~~ 23-9497 8/29/2027	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓ Isobutylene: 100.0

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.1 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmaker	11/13/23	Field environmental	U74695X	592-911655	1005	yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field environmental	23-9997	CO: — H_2S: — LEL: — O_2: —
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	—	0.0	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	—	—	—	—	Expected Reading	100.0 ppm
Actual Reading	—	—	—	—	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmaker	11/3/23	Fire	213490	592-602748	0810	yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Fire	304-402690404-1	CO: — H_2S: — LEL: — O_2: —
		03/21/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading					Actual Reading	

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenaar	8/16/23	Field Environmental	6780666X	592-913102	0705	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9997	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenaar	11/16/23	Field Environmental	079695X	592-911655	0705	YES

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9997	CO: — H_2S: — LEL: — O_2: —
		8/24/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	—	0.0	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	—	—	—	—	Expected Reading	100.0 ppm
Actual Reading	—	—	—	—	Actual Reading	100.0 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Maksack	11/20/23	field env.	U74242X	592-911655	0743	✓

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
isobutylene	field environ.	23-9997/8129K1	CO: H_2S: LEL: O_2:
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading		0.0			

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	100.00 ppm
Actual Reading					Actual Reading	100 ppm

Instrument OK? (YES) (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): (YES) NO		
Time:	Date: 11/20/23	Calibration Completed By: J. Maksack	
Calibration Gas	Same as Above (Circle one)? (YES) NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Marsack	11/20/23	field	U78066X	592-913102	0732	✓

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	field environmental	23-9997	CO: H_2S: LEL: O_2:
		8/24/27	Isobutylene: 100ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading		0.0ppm			

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	
Actual Reading	\	\	\	\	Actual Reading	\

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date: 11/20/23	Calibration Completed By: J. Marsack	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC: 100ppm

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmaker	11/21/23	Field Environmental	U7L695X	592-911655	0720	yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9497	CO: — H_2S: — LEL: — O_2: —
		8/29/2023	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]					Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	99.9 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J Miller	12-1-2023	Field Env.	M780606X	592-913102	6:55	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	Field Env	23-9997	CO: ~ H_2S: ~ LEL: ~ O_2: ~
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	—	—	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	/	/	/	/	Expected Reading	100.00
Actual Reading	/	/	/	/	Actual Reading	100.00

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Miller	12-1-2021	Field Env.	U74695x	592-911655	6:55	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
Isobutylene	Field Env	23-9997	CO: — H_2S: — LEL: — O_2: —
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	—	—	—	—	—

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	/	/	/	/	Expected Reading	100 ppm
Actual Reading	/	/	/	/	Actual Reading	99.9 ppm

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenmaker	11/30/2023	Field Enviromental	U7469SX	592-911655	0650	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9997	CO: — H_2S: — LEL: — O_2: —
		8/29/2027	Isobutylene: 1000 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	/	0.0	/	/	

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	/	/	/	/	Expected Reading	100.0
Actual Reading	/	/			Actual Reading	

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J Wagenmaker	11/30/2023	Field Environmental	U78066X	592-913102	0650	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9097	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓	✓	Actual Reading	100.0

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

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McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wojenaker	11/28/2023	Field Environmental	PB U780bbX	592-913102	0700	YES

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
100 BUTYLENE	Field Environmental	23.9997	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: 100.0 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading	✓	✓	✓		Actual Reading	100.0 ppm

Instrument OK? ~~YES (Calibration Completed)~~ NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
[illegible]	11/29/23	Field Environmental	592-413102	V78066X	0705	✓

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
100 Isobutylene	Field	8/29/27	CO: H_2S: LEL: O_2:
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	—	—	—	—	Expected Reading	100.0
Actual Reading	—	—	—	—	Actual Reading	49.7

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
Jean J. Seffken	11/29/23	Field Environmental	592-911655	U746952	0703	✓

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
100 Isobutylene	Field	8/29/27	CO: H_2S: LEL: O_2:
			Isobutylene: 100 ppm

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	/	0.0	/	/	/

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	—	—	—	—	Expected Reading	100
Actual Reading	—	—	—	—	Actual Reading	99.9

Instrument OK? YES (Calibration Completed) NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Check Readings:				
CO:	H_2S:	LEL:	O_2:	VOC:

Comments/Corrective Action: _____

McLouth Steel Corp Superfund Site

Instrument Calibration Log

RAE Systems .MultiRAE + (4 gas + PID)

Calibration Completed By	Date	Rental Company	Rental Company Number	Instrument Serial Number	Time Instrument On[1]	Warm Up 5 to 10 Minutes[2]
J. Wagenaker	11/28/2023	Field Environmental	074695X	5A2911655	0700	Yes

Calibration Gas	Manufacturer	Lot No./Expiration Date	Concentration(s)
ISOBUTYLENE	Field Environmental	23-9497	CO: ✓ H_2S: ✓ LEL: ✓ O_2: ✓
		8/29/2027	Isobutylene: ISOBUTYLENE

Fresh Air Calibration	Carbon Monoxide (CO) Reading	VOC[3] Reading (zero)	H_2S Reading (zero)	LEL Reading (zero)	Oxygen (O_2)
Expected Reading[4]	Zero	Zero	Zero	Zero	20.9%
Actual Reading	✓	0.0	✓	✓	✓

Multiple Sensor Calibration	CO Reading	H_2S Reading	LEL Reading	O_2 Reading	VOC Sensor Calibration	VOC Reading
Expected Reading[5]	✓	✓	✓	✓	Expected Reading	100.0 ppm
Actual Reading					Actual Reading	100.0 ppm

Instrument OK? ~~YES (Calibration Completed)~~ NO (Problem with instrument, detail in comments)

Calibration Check[6]	Completed (Circle one): YES NO		
Time:	Date:	Calibration Completed By:	
Calibration Gas	Same as Above (Circle one)? YES NO (IF NO COMPLETE INFORMATION BELOW)		
	Manufacturer	Lot No./Expiration Date	Concentration(s)
			CO: H_2S: LEL: O_2:
			Isobutylene:

[1] Note time instrument is turned on for initial warm up

[2] While instrument is warming up, make sure inlet tubing is connected to a hydrophobic filter and fill one Tedlar bag with isobutylene and one with four gas mix

[3] VOC – volatile organic compounds, H_2S – hydrogen sulfide, LEL – lower explosive limit

[4] Instruments should read zero after fresh air calibration is complete, write down actual readings below headings

[5] Write concentration from calibration gas on this line

[6] Complete at the end of the day

McLouth Steel Corp. Superfund Site
GENERAL EQUIPMENT CALIBRATION LOG

Instrument (make/model/serial #): U-52 Manufacturer: Horiba Rental Company: Field

Upon receipt, all parts are included and this instrument is in working order: _____
(signature/date)

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
11-13-23	—	pH 4.0 turb 0.0 cond 4.45 mS/cm	lot 8307141 7/27/25	yes	4.0 pH turb 4.48 mS/cm 0.0	pass	U107 357X
11-13-23	—	pH 4.0 turb 0.0 cond 4.45 mS/cm		yes	4.00 pH turb 4.47 mS/cm 0.0	pass	U108 059X
11-13-23	—	pH 4.0 Turb 0.0 cond 4.45 mS/cm		yes	4.0 pH turb 4.45 0.0	pass	U03 108X 4107 357X
11/20/23	—	pH 4.0 turb 0.0 cond: 4.45		yes	3.99 4.51 0.0	pass	
11/20/23	—	pH - 4.0 turb 0.0 cond: 4.45		yes	4.00 4.51 0.0	pass	U108 059X
"					3.99 4.51 0.0		U108 059X
11/21/23	—	pH - 4.0 Turb 0.0 cond: 4.45	↓	yes	3.99 4.49 0.0	pass	

REV 12/22

McLouth Steel Corp. Superfund Site
GENERAL EQUIPMENT CALIBRATION LOG

Instrument (make/model/serial #): Horiba U-52 Manufacturer: Horiba/YSI Rental Company: Pine.

Upon receipt, all parts are included and this instrument is in working order: Jordyn Maussa 10/16/23 (signature/date)

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
10/16/23	—	autoCal 4.0/4.49/0.0	2400111 05/3/24	none	3.97 pH 4.47/0.0	pass	
10		auto cal 4.0/4.49	2400111 05/3/24	none	4.00 pH / 4.49 ms/cm / 0.0 NTU	pass	
10/14/23	—	auto cal 4.0/4.49	2400111 05/31/24	None	3.96 Ph / 4.43 MS/cm / 0.0 NTU	Pass	
11/14/23	U07357X	Auto cal 4.0/4.49	830741 7/22/25	Yes	3.95 pH 4.51 ms/cm 0.8 NTU	Pass	
11/14/23	U88865	Auto cal 4.0/4.49		Yes	4.00 4.50 0.0 NTU	Pass	
11/14/23	U115974X	Autocal 4.0/4.49		Yes	3.99 4.50 0.0 NTU	Pass	
11/15/23	U88665	AutoCal 4.0, 4.45, 0.0		yes	3.95 4.49 0.0 NTU	Pass	
11/15/23	U115974X	AutoCal 4.0, 4.45, 0.0		yes	3.98 4.50 0.8 NTU	Pass	
11/16/23	U88865	AutoCal 4.0, 4.45, 0.0		yes	3.97 4.50 0.2 NTU	Pass	
11/16/23	U115974X	AutoCal 4.0, 4.45, 0.0		yes	3.98 4.49 0.0 NTU	Pass	
11/17/23	U88665	Auto Cal 4.0 4.45, 0.0			3.99 4.50 0.7 NTU	Pass	
11/17/23	U115974X	Auto Cal 4.0, 4.45, 0.0			3.98 4.50 0.0 NTU	Pass	

REV 12/22

McLouth Steel Corp. Superfund Site
GENERAL EQUIPMENT CALIBRATION LOG

Instrument (make/model/serial #): U-62 **Manufacturer:** Horiba **Rental Company:** Field

Upon receipt, all parts are included and this instrument is in working order: _____
(signature/date)

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature	
11/27/2023	—	pH: 4.0 Turb: 0.0 cond: 4.45 ms/cm	8307141	Yes	4.00, 4.49 0.0	Pass		U108 054X
11/27/2023	—	pH: 4.0 Turb: 0.0 cond: 4.45 ms/cm	8307141	Yes	3.99, 4.49 0.0	Pass		U107 357X
11-28-2023	—	pH: 4.0 Turb: 00 Cond. 4.45 ms/cm	8307141	Yes	4.00 4.48 0.1	Pass		U108 054X
11-28-2023	—	pH: 4.0 Turb: 00 cond. 4.45 ms/cm	8307141	Yes	4.00 4.48 0.0	Pass		U107 357X
11/29/2023	—	pH: 4.0 Turb: 0.0 cond: 4.45 ms/cm	8307141	yes	3.97, 4.50 0.8	Pass		U108 054X
11/29/2023	—	pH: 4.0 Turb: 0.0 cond: 4.45 ms/cm	8307141	yes	3.96 4.47 0.0	pass		U107 357X
11/30/2023	—	↓	↓	↓	4.00 4.50 0.0	pass		U108 054X
11/30/2023	—	↓	↓	↓	3.97 4.50 0.5	Pass		U103 108X
11/30/2023	—	↓	↓	↓	4.00, 4.50 0.0	pass		U107 357X
12/1/2023	—	pH: 4.0 Turb: 0.0 cond: 4.45	8307141	Yes	4.00 4.49 0.0	Pass		U108 054X
12/1/2023	—	↓	↓	Yes	3.95 4.49 0.0	Pass		U103 08X
12/1/2023	—	↓	↓	Yes	3.99 4.49 0.0	Pass		U107 357

REV 12/22

MONITORING WELL CONSTRUCTION DETAILS

PROJECT McLouth Steel Corp. Superfund Site
LOCATION Trenton, MI

WELL NO. RI-MW-01

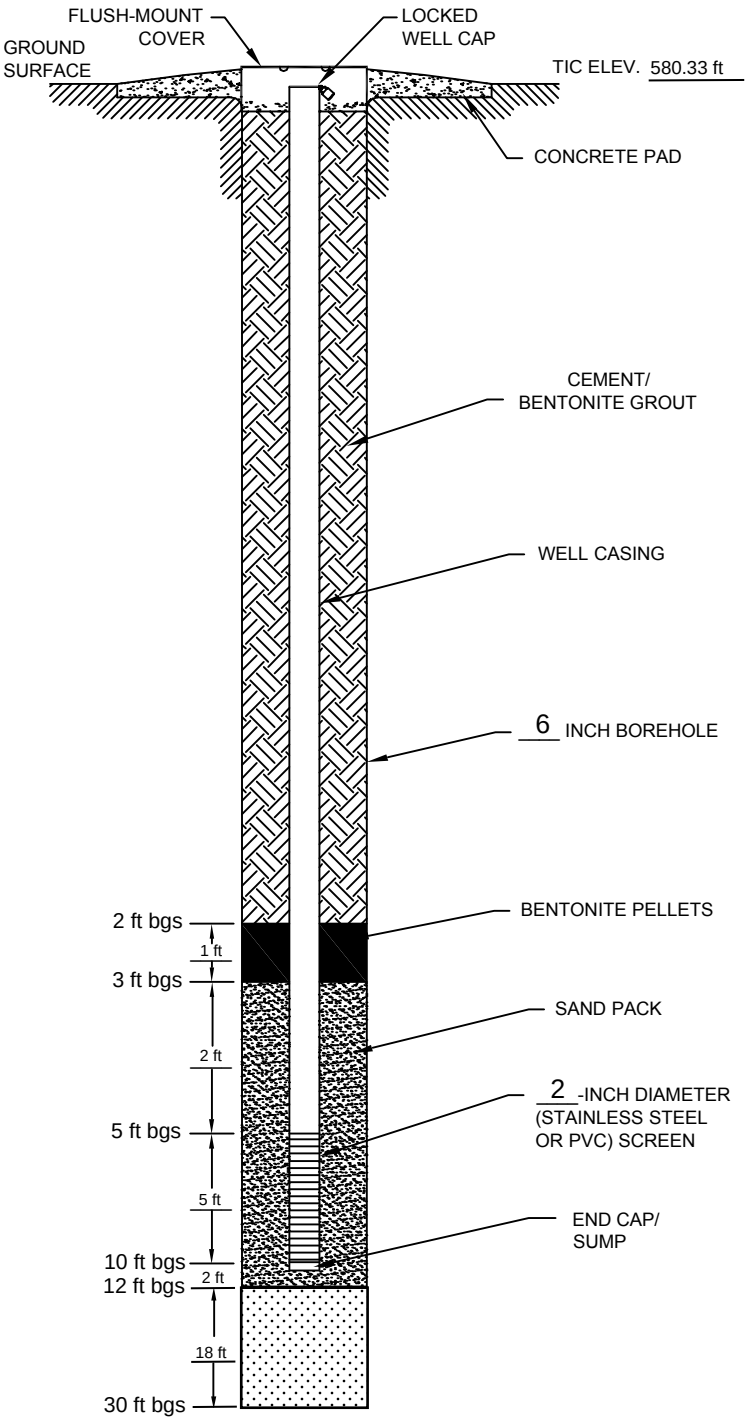
BORING DATA
TOTAL DEPTH OF BOREHOLE 30 ft bgs
HOLE DIAMETER 6-in
DRILLING METHOD Sonic
DRILLING FLUID Water

CONSTRUCTION DATA
CASING LENGTH
CASING DIAMETER 2-in
CASING MATERIAL Sch. 40 PVC
JOINT DESIGN Threaded (Flush)
SEAL Bentonite Chips (Medium)
FILTER PACK No. 1 Sand
SCREEN SIZE 0.010
SCREEN MATERIAL Sch. 40 PVC
GROUT Portland/Benseal

A. CASING ELEVATION ABOVE GROUND
B. DEPTH TO TOP OF CASING
C. DEPTH OF TOP OF GROUT
D. DEPTH TO TOP OF FINE SAND
E. DEPTH TO TOP OF SAND 3 ft bgs
F. DEPTH TO TOP OF SCREEN 5 ft bgs
G. TOTAL WELL DEPTH 10 ft bgs
H. WATER FIRST NOTICED 5 ft bgs
I. DEPTH TO WATER AT COMPLETION

CLIENT US EPA Region 5
DRILLING CONTRACTOR Cascade Environmental
DRILL RIG LS 250 Minisonic
DRILLERS Steve Argue, Malik Thompson, Billy Grawlin
INSTALLATION DATE 08/28/2023
LOGGED BY Jason Wagenmaker
SUPERVISOR GEOLOGIST James Dunahue

NOT TO SCALE



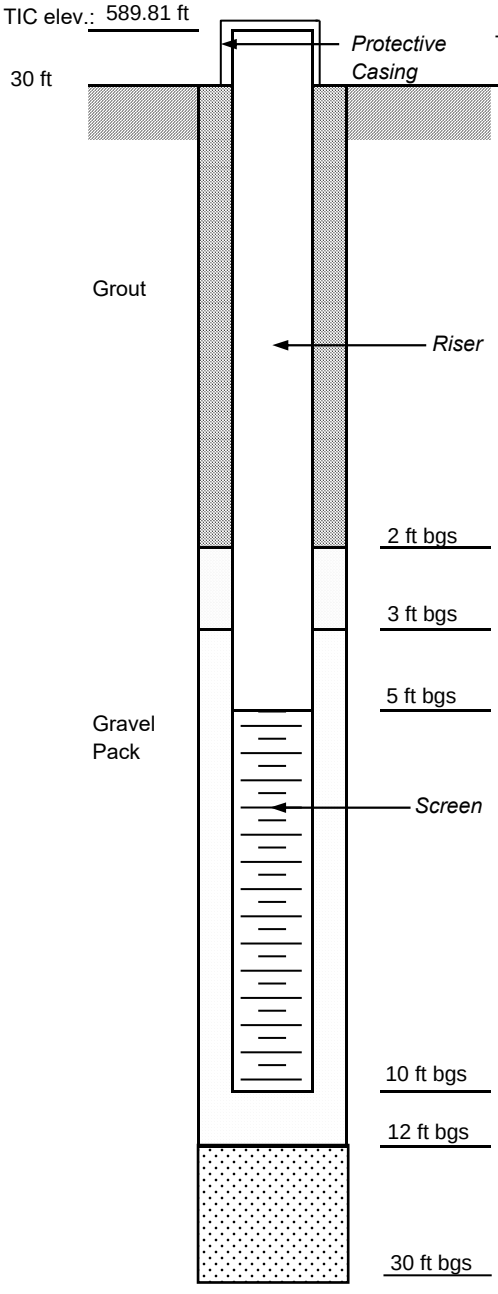
CDM

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-02
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 589.81 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Steve Argue, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 30 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: James Dunahue

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 10 ft bgs
Filter Material:	No. 1 Sand	Setting:	3 - 12 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	2 - 3 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 2 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

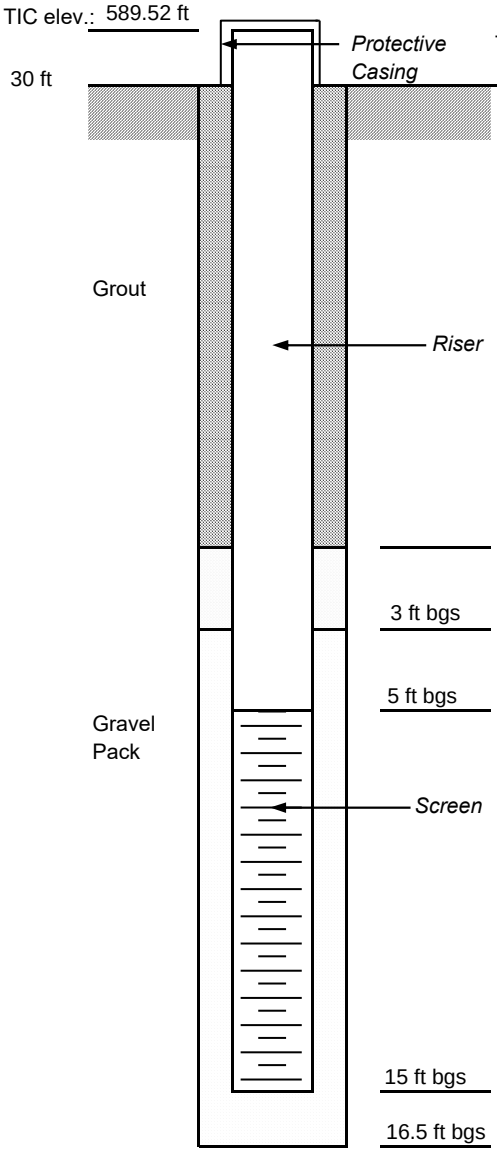
TIME LOG

	Started	Completed
Drilling:	08/28/2023	08/28/2023
Installation:	08/28/2023	08/28/2023

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-03
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 589.52 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Marquis Barrett
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 16.5 ft bgs
Depth To Water: 2 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 15 ft bgs
Filter Material:	No. 1 Sand	Setting:	3 - 16.5 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	
Grout:	Portland/Benseal	Setting:	
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/18/2023	08/18/2023
Installation:	08/18/2023	08/18/2023

NOTES

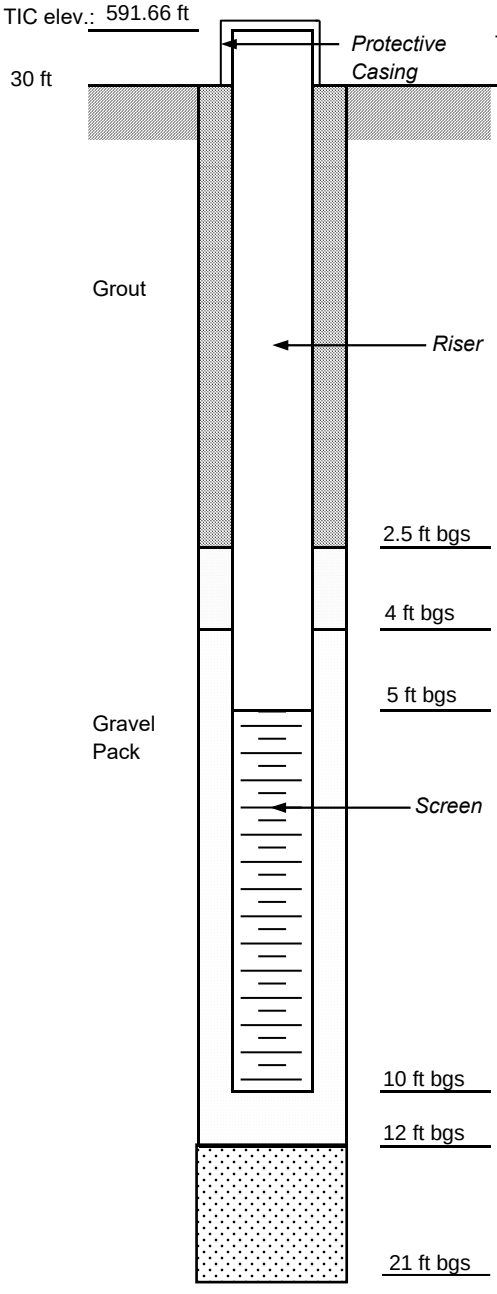
Sand: 4.5 bags
Bentonite: 0.5 bag
Other: Pending stick up well completion

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-04
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.66 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Steve Argue, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 21 ft bgs
Depth To Water: 6 ft bgs
Supervisor Geologist: James Dunahue

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 10 ft bgs
Filter Material:	No. 1 Sand	Setting:	4 - 12 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	2.5 - 4 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 2.5 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

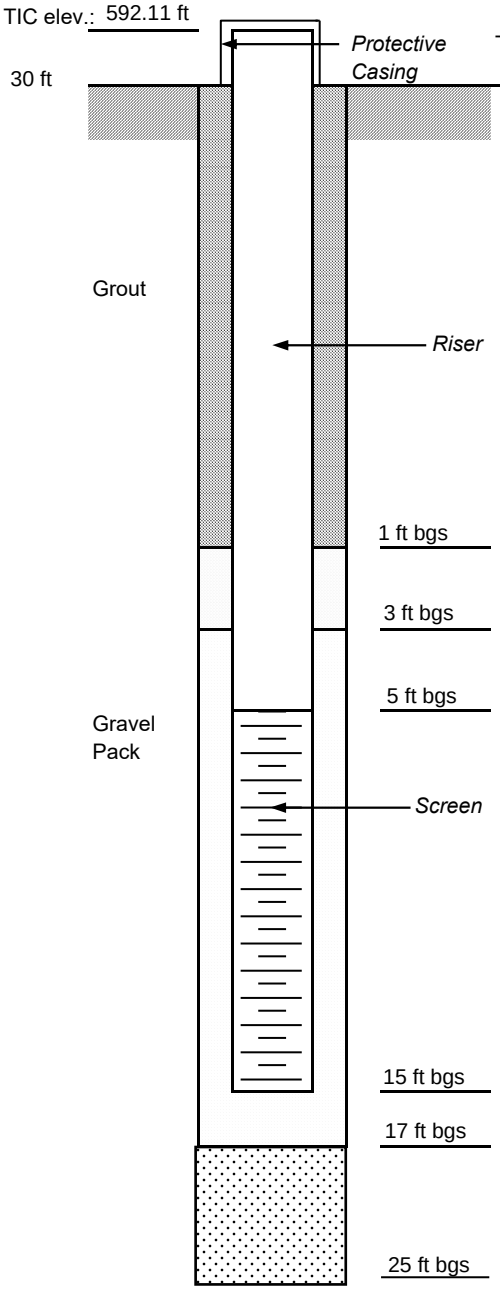
	Started	Completed
Drilling:	08/29/2023	08/29/2023
Installation:	08/29/2023	08/29/2023

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-05
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.11 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Marquis Barrett
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 25 ft bgs
Depth To Water: 4 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 15 ft bgs
Filter Material:	No. 1 Sand	Setting:	3 - 17 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	1 - 3 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 1 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 1 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

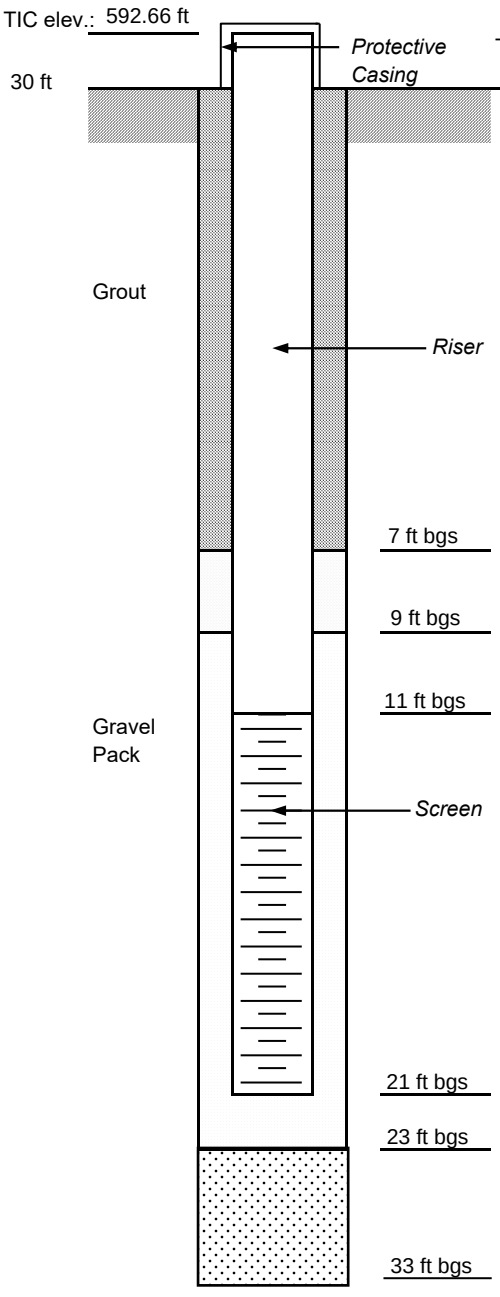
	Started	Completed
Drilling:	08/16/2023	08/16/2023
Installation:	08/16/2023	08/16/2023

NOTES

Sand: 4.5 bags
Bentonite: 0.5 bag
Other: Pending stick up well completion

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-07
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A



DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 33 ft bgs
Depth To Water: 7 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	11 - 21 ft bgs
Filter Material:	No. 1 Sand	Setting:	9 - 23 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	7 - 9 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 7 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

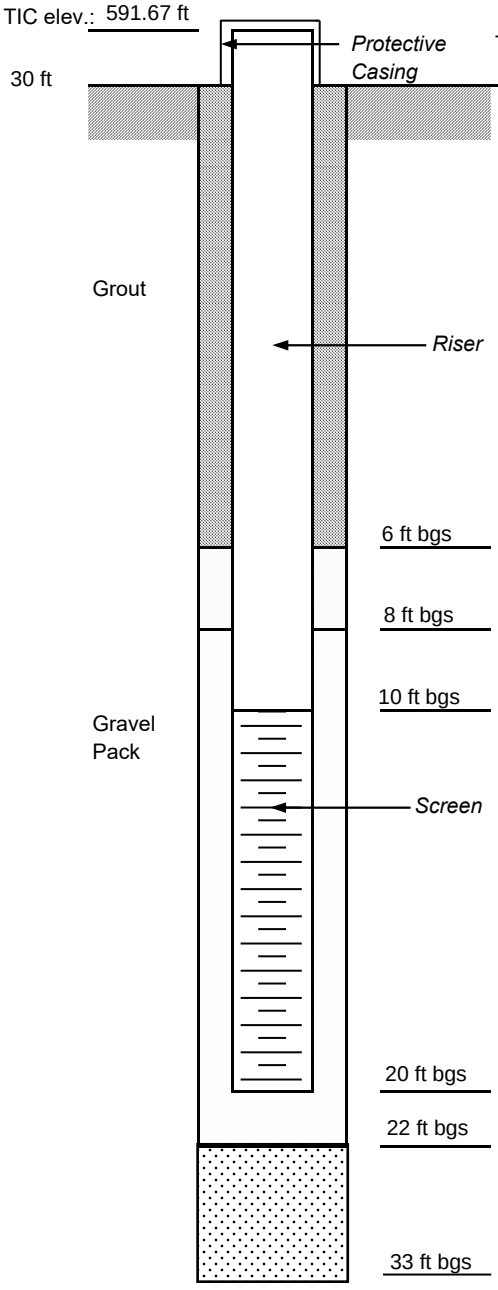
	Started	Completed
Drilling:	09/14/2023	09/14/2023
Installation:	09/14/2023	09/14/2023

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-08
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.67 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 33 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	6 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 6 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/14/2023	09/14/2023
Installation:	09/14/2023	09/14/2023

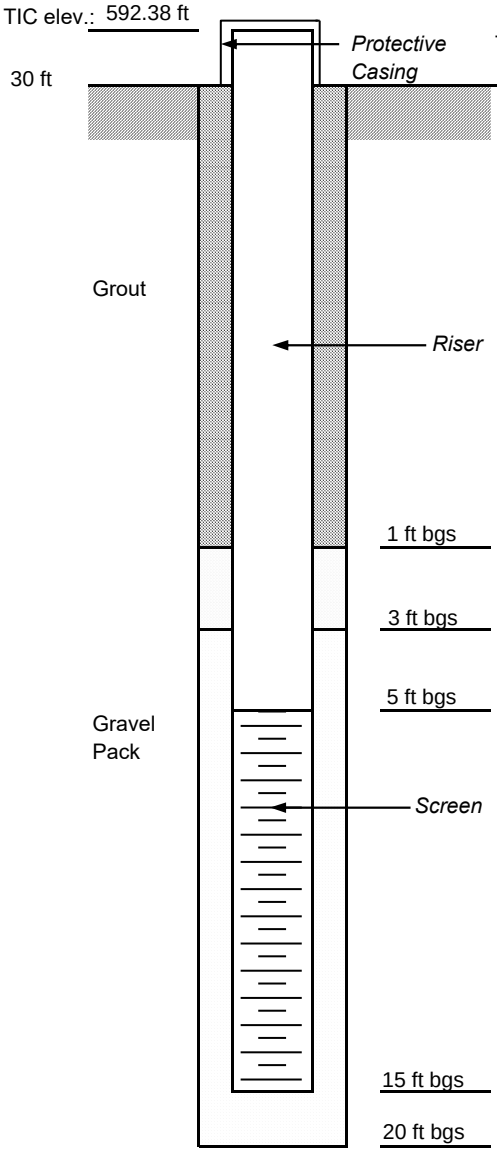
NOTES

Sand: 5 bags
Bentonite: 2 bags backfill, 0.5 bag seal

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-10
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.38 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 20 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 15 ft bgs
Filter Material:	No. 1 Sand	Setting:	3 - 20 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	1 - 3 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 1 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 1 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/12/2023	09/12/2023
Installation:	09/12/2023	09/12/2023

NOTES

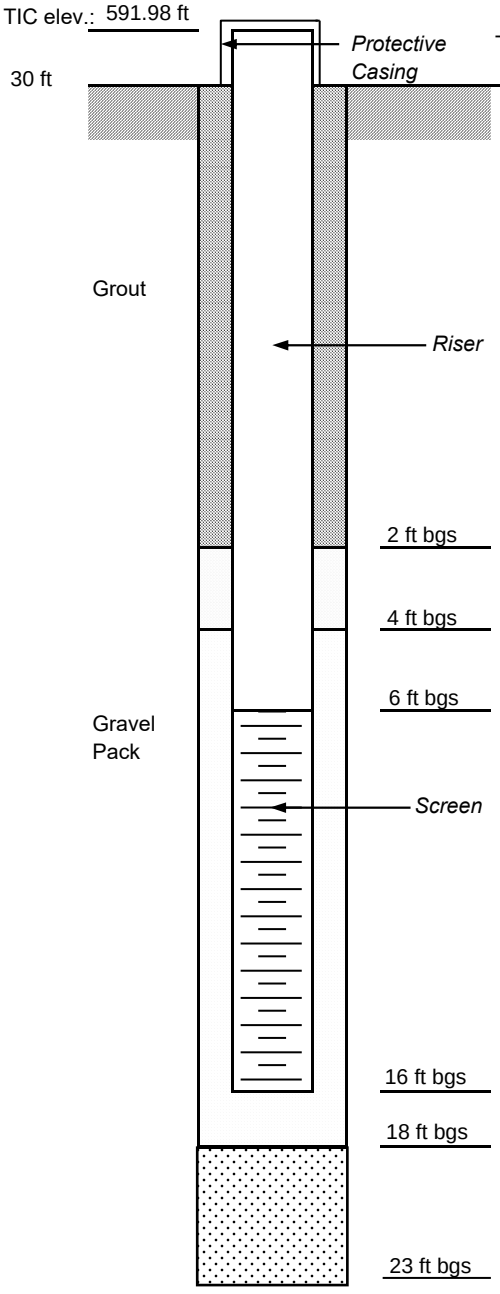
Sand: 8 bags (caved in with sand from 15 - 20 ft bts)
Bentonite: 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-11
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.98 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 23 ft bgs
Depth To Water: 6 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	6 - 16 ft bgs
Filter Material:	No. 1 Sand	Setting:	4 - 18 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	2 - 4 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 2 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/12/2023	09/12/2023
Installation:	09/12/2023	09/12/2023

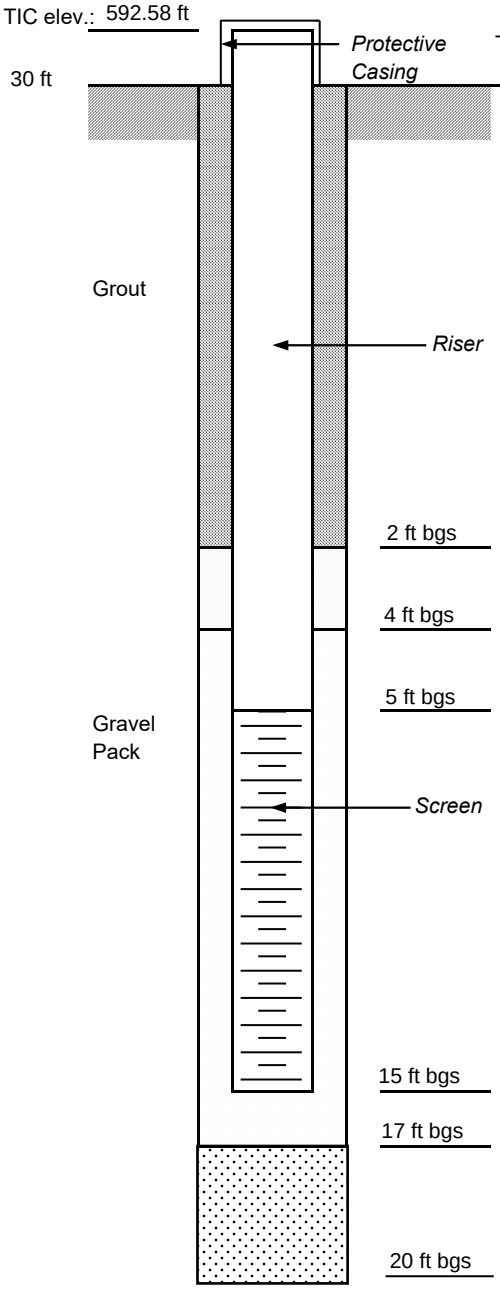
NOTES

Sand: 4.75 bags
Bentonite: 1 bags backfill, 0.5 bag seal

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-12
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.58 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Colby Kanthook
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 20 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	5 - 15 ft bgs
Filter Material:	No. 1 Sand	Setting:	4 - 17 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	2 - 4 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 2 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/8/2023	09/8/2023
Installation:	09/8/2023	09/8/2023

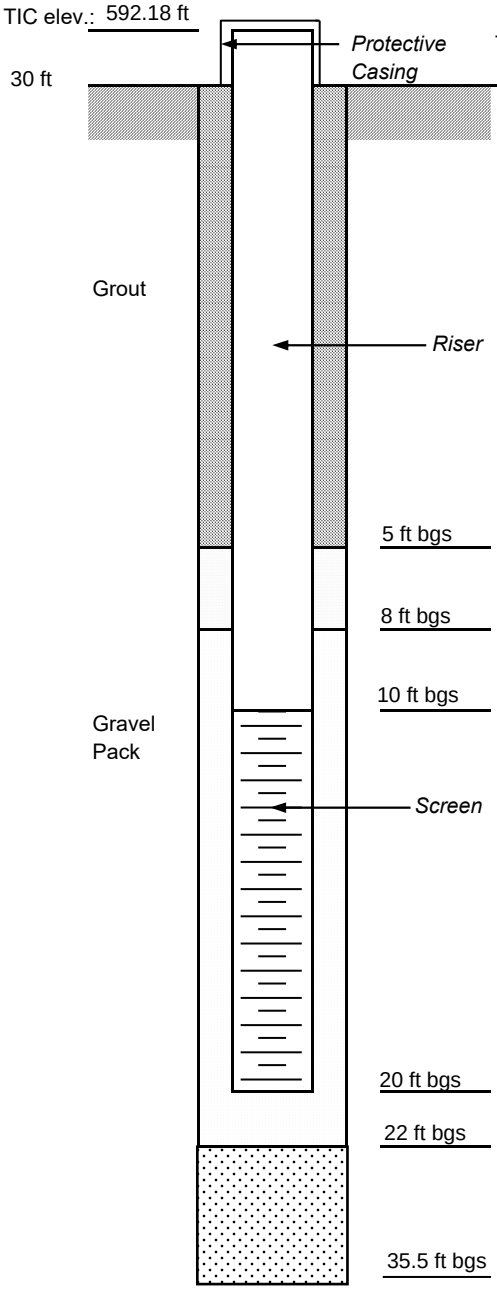
NOTES

Depth to top of seal is 1 ft bgs

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-13
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.18 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Colby Kanthook
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 35.5 ft bgs
Depth To Water: 10 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	5 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 5 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/8/2023	09/8/2023
Installation:	09/8/2023	09/8/2023

MONITORING WELL CONSTRUCTION DETAILS

PROJECT McLouth Steel Corp. Superfund Site
LOCATION Trenton, MI

WELL NO. RI-MW-15

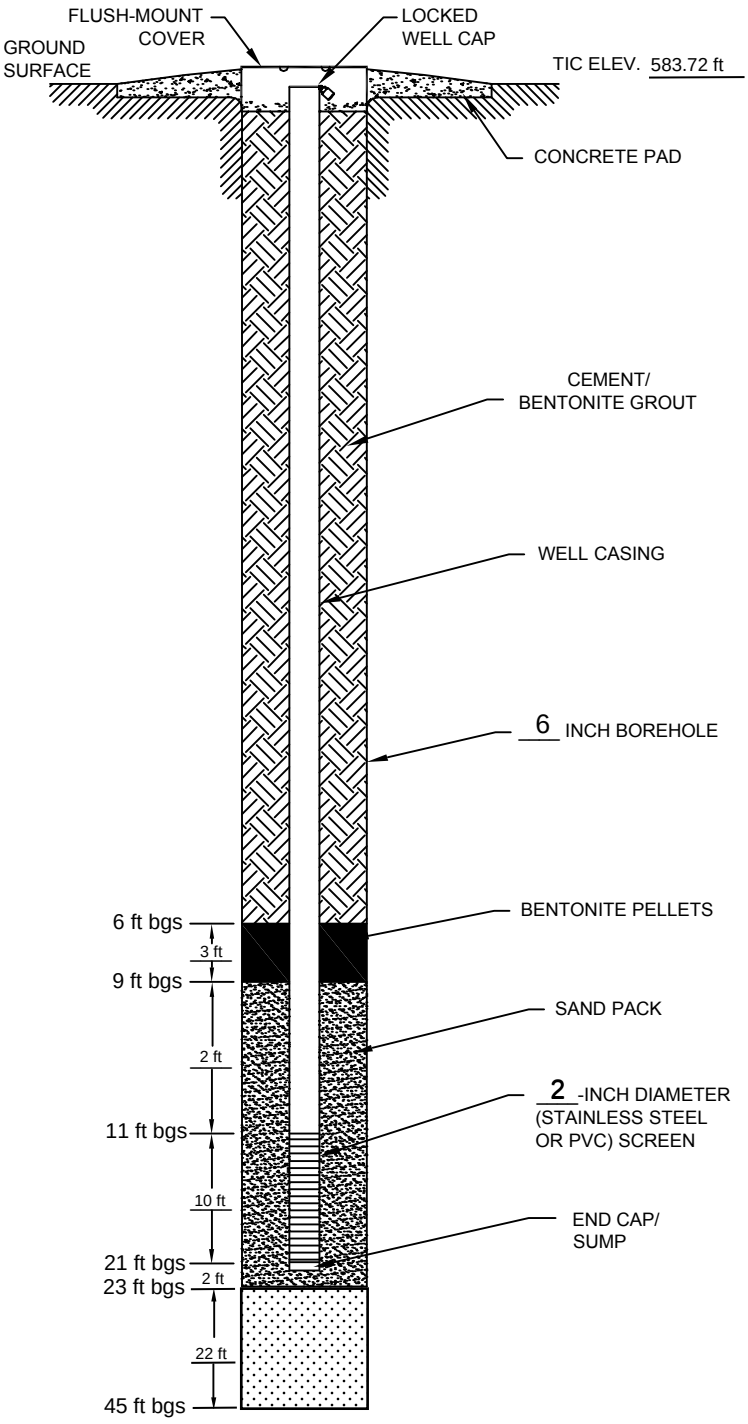
BORING DATA
TOTAL DEPTH OF BOREHOLE 45 ft bgs
HOLE DIAMETER 6-in
DRILLING METHOD Sonic
DRILLING FLUID Water

CONSTRUCTION DATA
CASING LENGTH
CASING DIAMETER 2-in
CASING MATERIAL Sch. 40 PVC
JOINT DESIGN Threaded (Flush)
SEAL Bentonite Chips (Medium)
FILTER PACK No. 1 Sand
SCREEN SIZE 0.010
SCREEN MATERIAL Sch. 40 PVC
GROUT Portland/Benseal

A. CASING ELEVATION ABOVE GROUND
B. DEPTH TO TOP OF CASING
C. DEPTH OF TOP OF GROUT
D. DEPTH TO TOP OF FINE SAND
E. DEPTH TO TOP OF SAND 9 ft bgs
F. DEPTH TO TOP OF SCREEN 11 ft bgs
G. TOTAL WELL DEPTH 21 ft bgs
H. WATER FIRST NOTICED 10 ft bgs
I. DEPTH TO WATER AT COMPLETION

CLIENT US EPA Region 5
DRILLING CONTRACTOR Cascade Environmental
DRILL RIG LS 250 Minisonic
DRILLERS Chris Bond, Malik Thompson, Billy Grawlin
INSTALLATION DATE 08/24/2023
LOGGED BY Jason Wagenmaker
SUPERVISOR GEOLOGIST Alex Pedjase

NOT TO SCALE



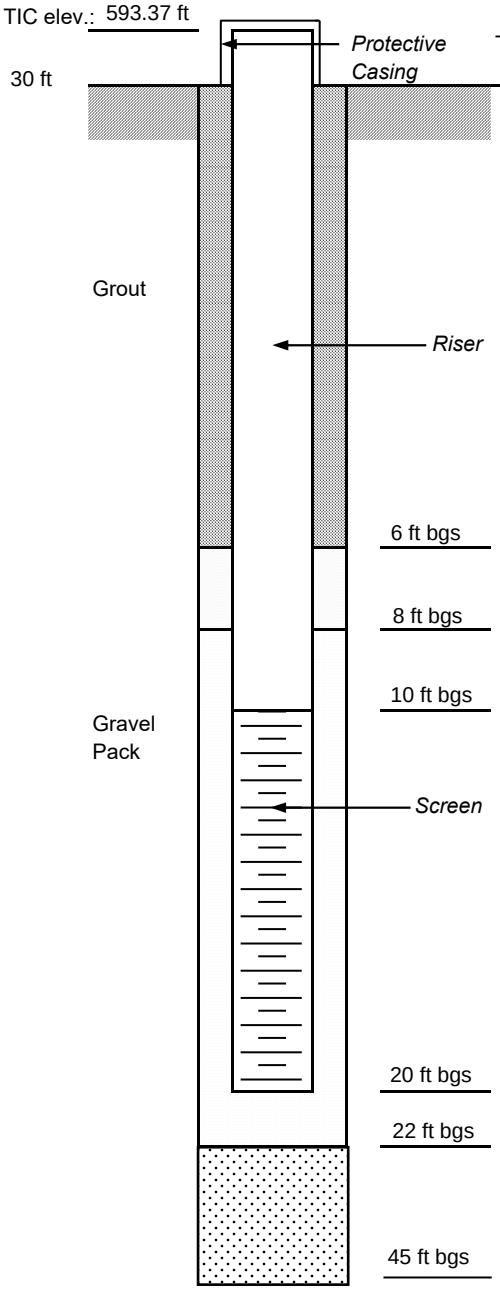
CDM

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-16
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 593.37 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 45 ft bgs
Depth To Water: 10 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	6 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 6 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/19/2023	09/19/2023
Installation:	09/19/2023	09/19/2023

NOTES

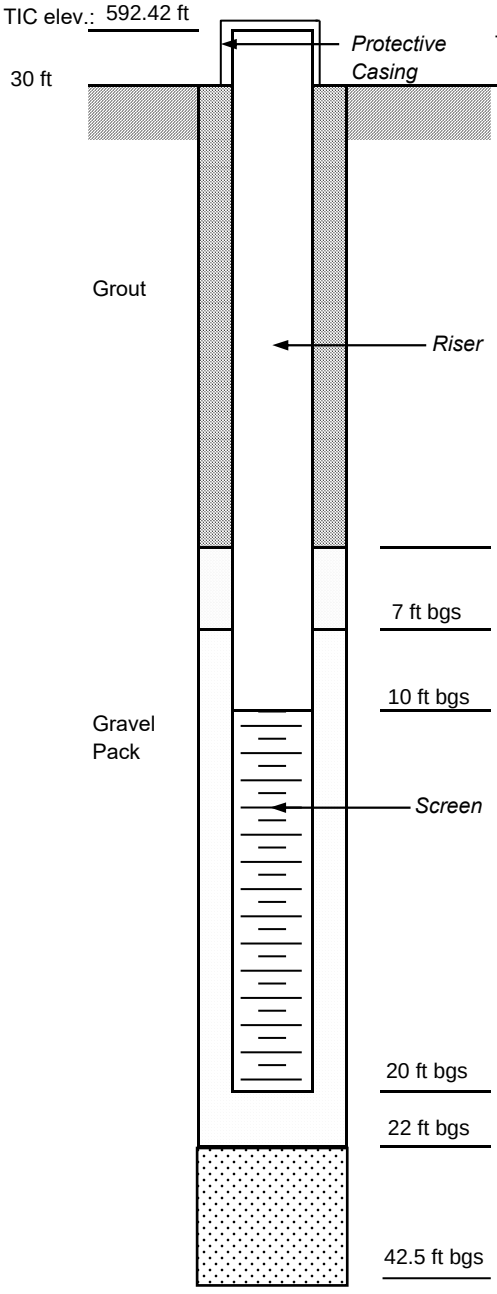
Sand: 6 bags
Bentonite: 4.5 bags backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-17
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.42 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Marquis Barrett
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 42.5 ft bgs
Depth To Water: 8 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	7 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	
Grout:	Portland/Benseal	Setting:	
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/17/2023	08/17/2023
Installation:	08/17/2023	08/17/2023

NOTES

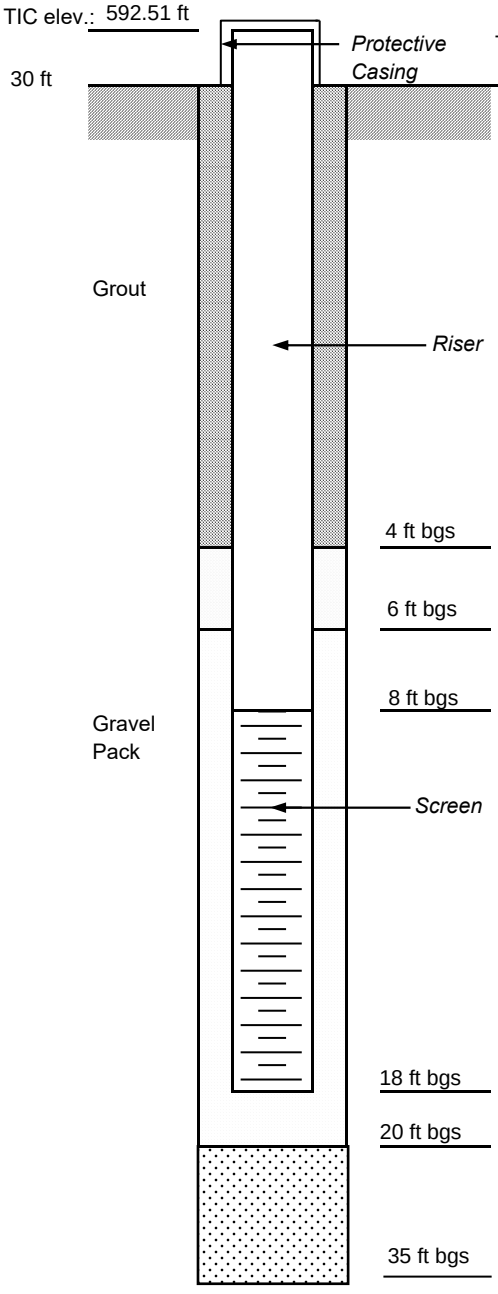
Pending stick up well completion

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-18
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.51 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 35 ft bgs
Depth To Water: 9 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	8 - 18 ft bgs
Filter Material:	No. 1 Sand	Setting:	6 - 20 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	4 - 6 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 4 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/21/2023	08/21/2023
Installation:	08/21/2023	08/21/2023

NOTES

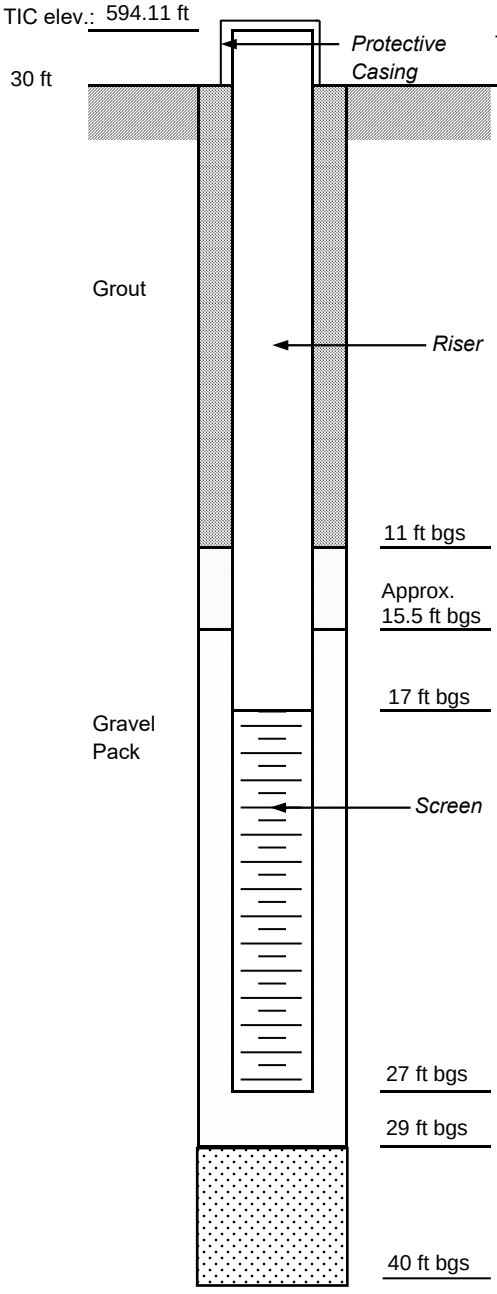
Sand: 4 bags

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-19
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 594.11 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 40 ft bgs
Depth To Water: 6 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	17 - 27 ft bgs
Filter Material:	No. 1 Sand	Setting:	Approx 15.5 - 29 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	11 - Approx 15.5 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 11 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/22/2023	08/22/2023
Installation:	08/22/2023	08/22/2023

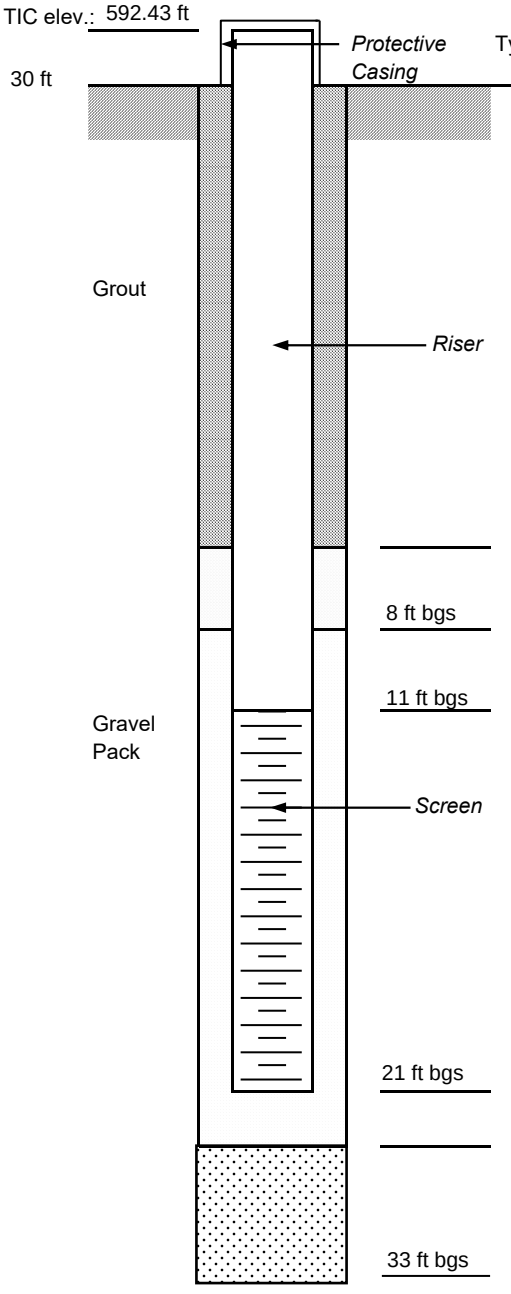
NOTES

The original handwritten construction details reports bentonite from 11 - 16 ft bgs and sand above screen from 15 - 17 ft bgs. To account for potential overlap between the materials, the boundary between bentonite and sand is approximated as 15.5 ft bgs.

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-21
Client: US EPA Region 5
Logged By: Alex Pedjase
Permit No.: N/A

TIC elev.: 592.43 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Marquis Barrett
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 33 ft bgs
Depth To Water: 10 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	11 - 21 ft bgs
Filter Material:	No. 1 Sand	Setting:	
Seals Material:	Bentonite Chips (Medium)	Setting:	
Grout:	Portland/Benseal	Setting:	
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/17/2023	08/17/2023
Installation:	08/17/2023	08/17/2023

NOTES

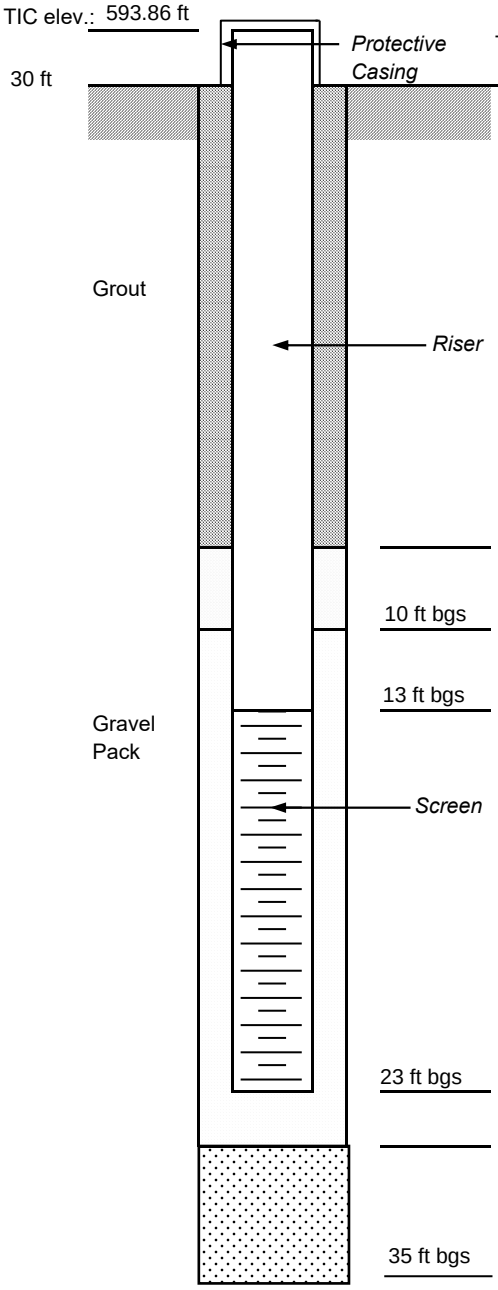
Grout: 5% bentonite grout

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-22
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 593.86 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 35 ft bgs
Depth To Water: 16 ft bgs (Water First Noticed)
Supervisor Geologist: Alex Pedjase
13.10 ft bgs (Depth to Water at Completion)

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	13 - 23 ft bgs
Filter Material:	No. 1 Sand	Setting:	
Seals Material:	Bentonite Chips (Medium)	Setting:	
Grout:	Portland/Benseal	Setting:	
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/15/2023	08/15/2023
Installation:	08/15/2023	08/15/2023

NOTES

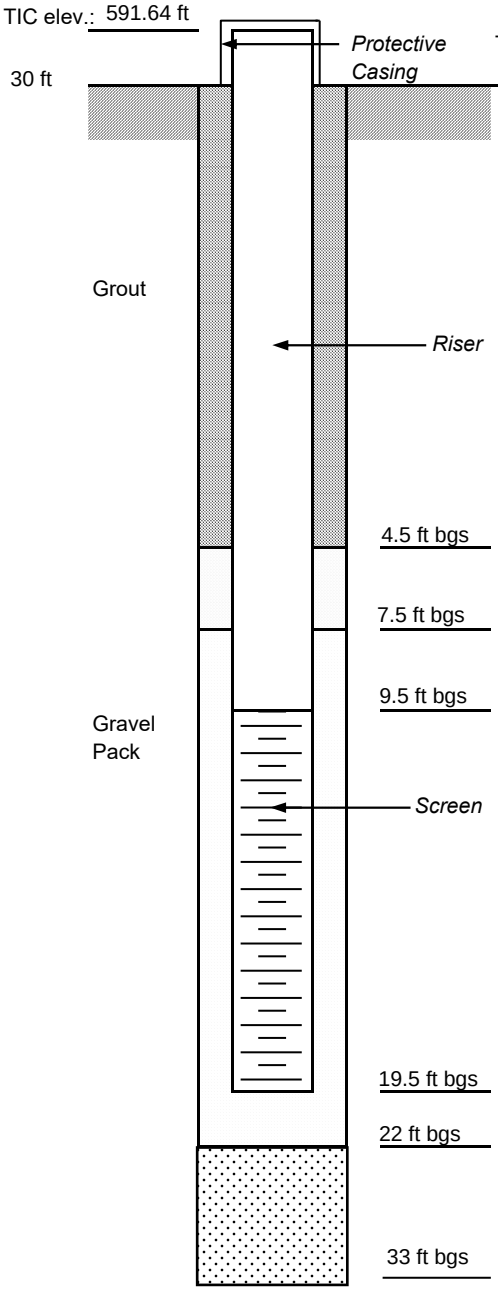
Sand: 9 bags
Bentonite: 0.167 bag of bentonite gel
Grout: 4 bags
3-5% cement/bentonite grout
Depth of top of grout is 8 in
Other: Pending surface well completion
Casing length is 15 ft

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-23
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.64 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Steve Argue, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 33 ft bgs
Depth To Water: 10 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	9.5 - 19.5 ft bgs
Filter Material:	No. 1 Sand	Setting:	7.5 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	4.5 - 7.5 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 4.5 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/30/2023	08/30/2023
Installation:	08/30/2023	08/30/2023

NOTES

Sand: 6 bags

MONITORING WELL CONSTRUCTION DETAILS

PROJECT McLouth Steel Corp. Superfund Site
LOCATION Trenton, MI

WELL NO. RI-MW-24

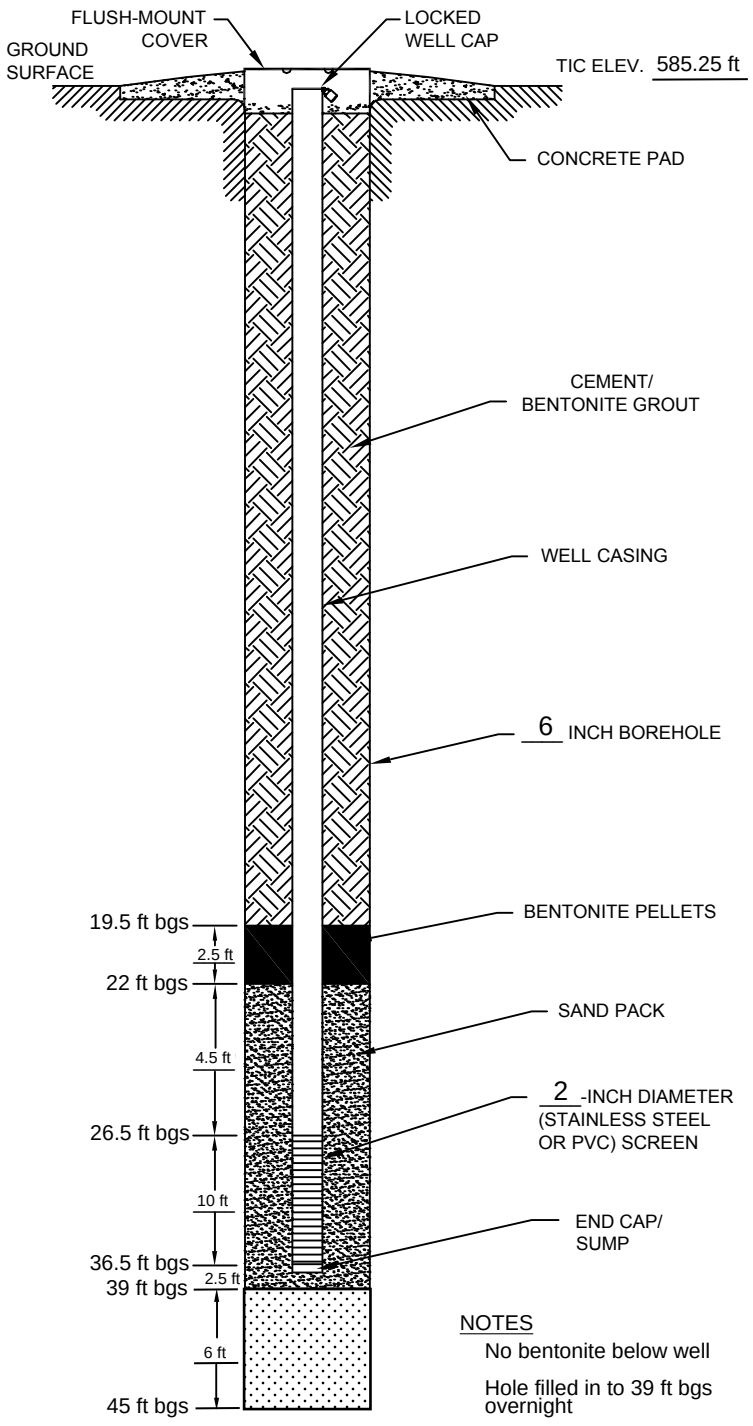
BORING DATA
TOTAL DEPTH OF BOREHOLE 45 ft bgs
HOLE DIAMETER 6-in
DRILLING METHOD Sonic
DRILLING FLUID Water

CONSTRUCTION DATA
CASING LENGTH
CASING DIAMETER 2-in
CASING MATERIAL Sch. 40 PVC
JOINT DESIGN Threaded (Flush)
SEAL Bentonite Chips (Medium)
FILTER PACK No. 1 Sand
SCREEN SIZE 0.010
SCREEN MATERIAL Sch. 40 PVC
GROUT Portland/Benseal

A. CASING ELEVATION ABOVE GROUND
B. DEPTH TO TOP OF CASING
C. DEPTH OF TOP OF GROUT
D. DEPTH TO TOP OF FINE SAND
E. DEPTH TO TOP OF SAND 22 ft bgs
F. DEPTH TO TOP OF SCREEN 26.5 ft bgs
G. TOTAL WELL DEPTH 36.5 ft bgs
H. WATER FIRST NOTICED 10 ft bgs
I. DEPTH TO WATER AT COMPLETION

CLIENT US EPA Region 5
DRILLING CONTRACTOR Cascade Environmental
DRILL RIG LS 250 Minisonic
DRILLERS Chris Bond, Malik Thompson, Billy Grawlin
INSTALLATION DATE 08/25/2023
LOGGED BY Jason Wagenmaker
SUPERVISOR GEOLOGIST Alex Pedjase

NOT TO SCALE



NOTES
No bentonite below well
Hole filled in to 39 ft bgs overnight

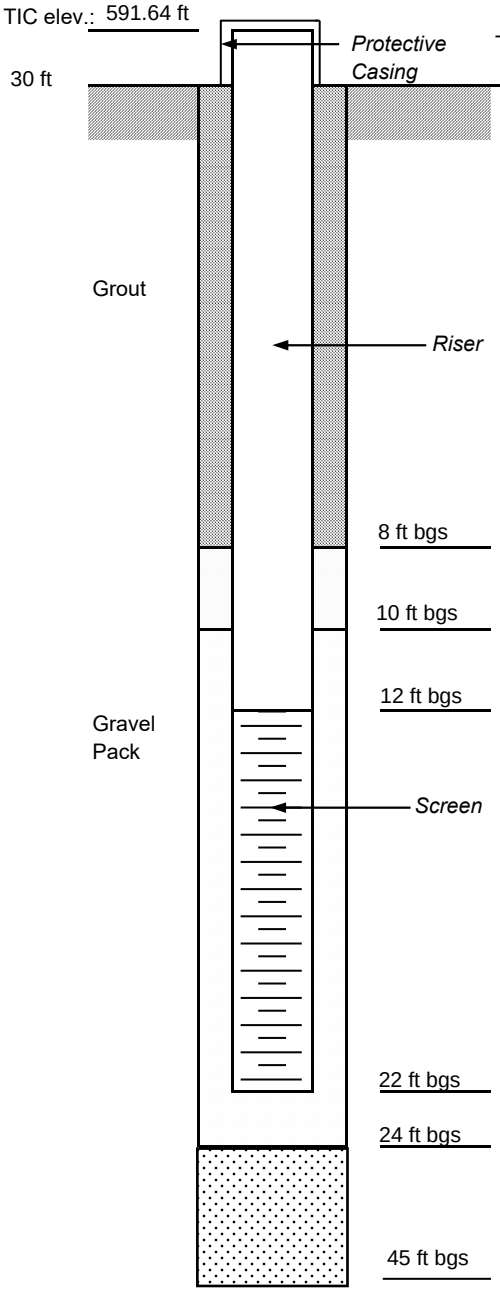
CDM

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-25
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.64 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 45 ft bgs
Depth To Water: 6 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	12 - 22 ft bgs
Filter Material:	No. 1 Sand	Setting:	10 - 24 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	8 - 10 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 8 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/19/2023	09/19/2023
Installation:	09/19/2023	09/19/2023

NOTES

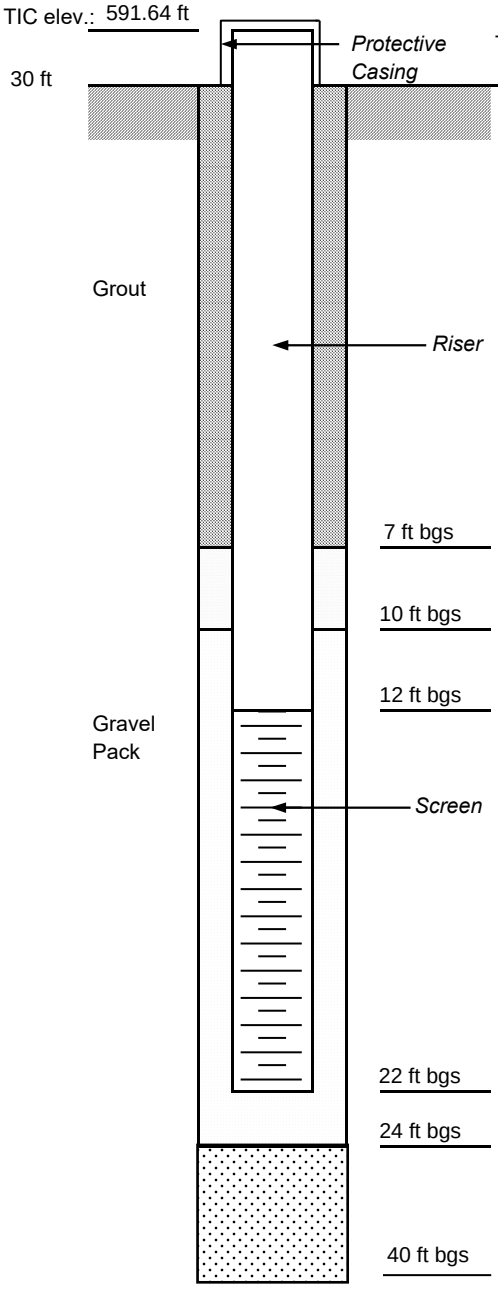
Sand: 5.5 bags
Bentonite: 4.5 bags backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-26
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.64 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Shaun Walton, Marlin Mallard
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 40 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	12 - 22 ft bgs
Filter Material:	No. 1 Sand	Setting:	10 - 24 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	7 - 10 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 7 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/15/2023	09/15/2023
Installation:	09/15/2023	09/15/2023

NOTES

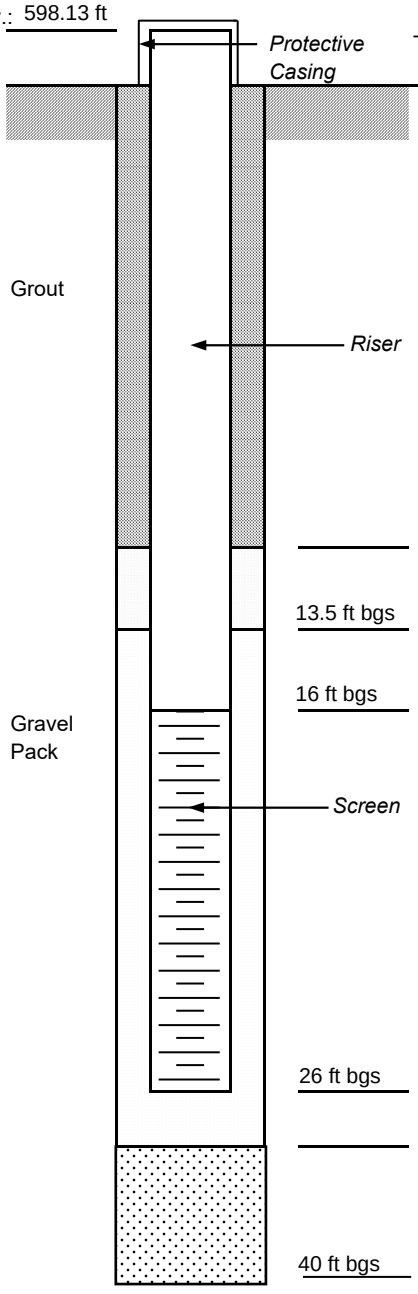
Sand: 6 bags
Bentonite: 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-27
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 598.13 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Billy Grawlin
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 40 ft bgs
Depth To Water: 16 ft bgs
Supervisor Geologist: Alex Pedjase

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	16 - 26 ft bgs
Filter Material:	No. 1 Sand	Setting:	
Seals Material:	Bentonite Chips (Medium)	Setting:	
Grout:	Portland/Benseal	Setting:	
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	08/21/2023	08/21/2023
Installation:	08/21/2023	08/21/2023

NOTES

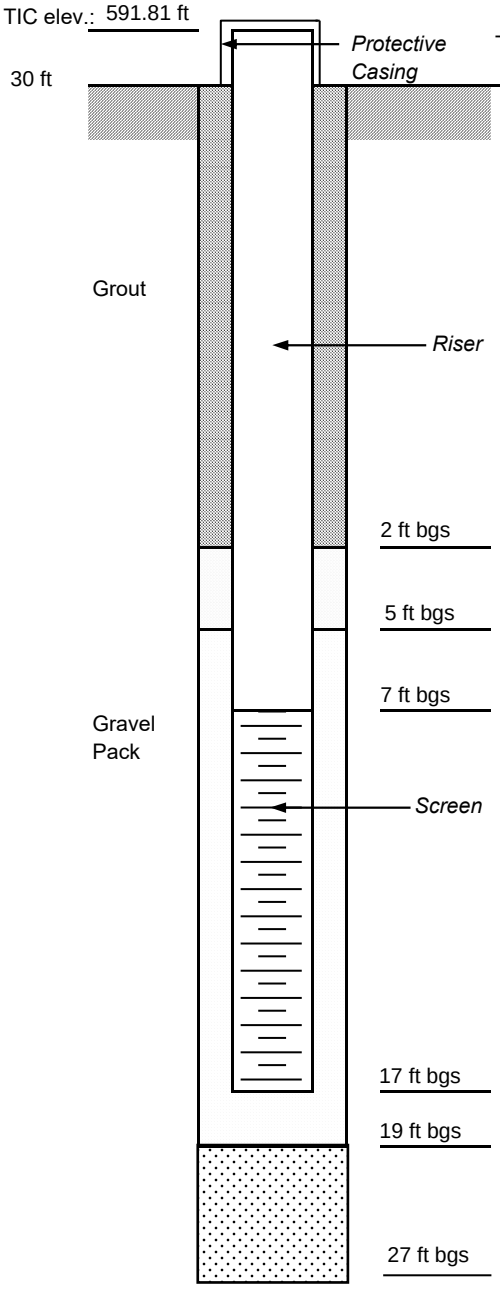
Sand: 4 bags

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-29
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.81 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 27 ft bgs
Depth To Water: 7 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	7 - 17 ft bgs
Filter Material:	No. 1 Sand	Setting:	5 - 19 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	2 - 5 ft bgs
Grout:	Portland/Benseal	Setting:	0 - 2 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs

TIME LOG

	Started	Completed
Drilling:	09/11/2023	09/11/2023
Installation:	09/11/2023	09/11/2023

NOTES

Sand: 6 bags
Bentonite: 2 bags backfill, 0.5 bag seal

MONITORING WELL CONSTRUCTION DETAILS

PROJECT McLouth Steel Corp. Superfund Site
LOCATION Trenton, MI

WELL NO. RI-MW-30

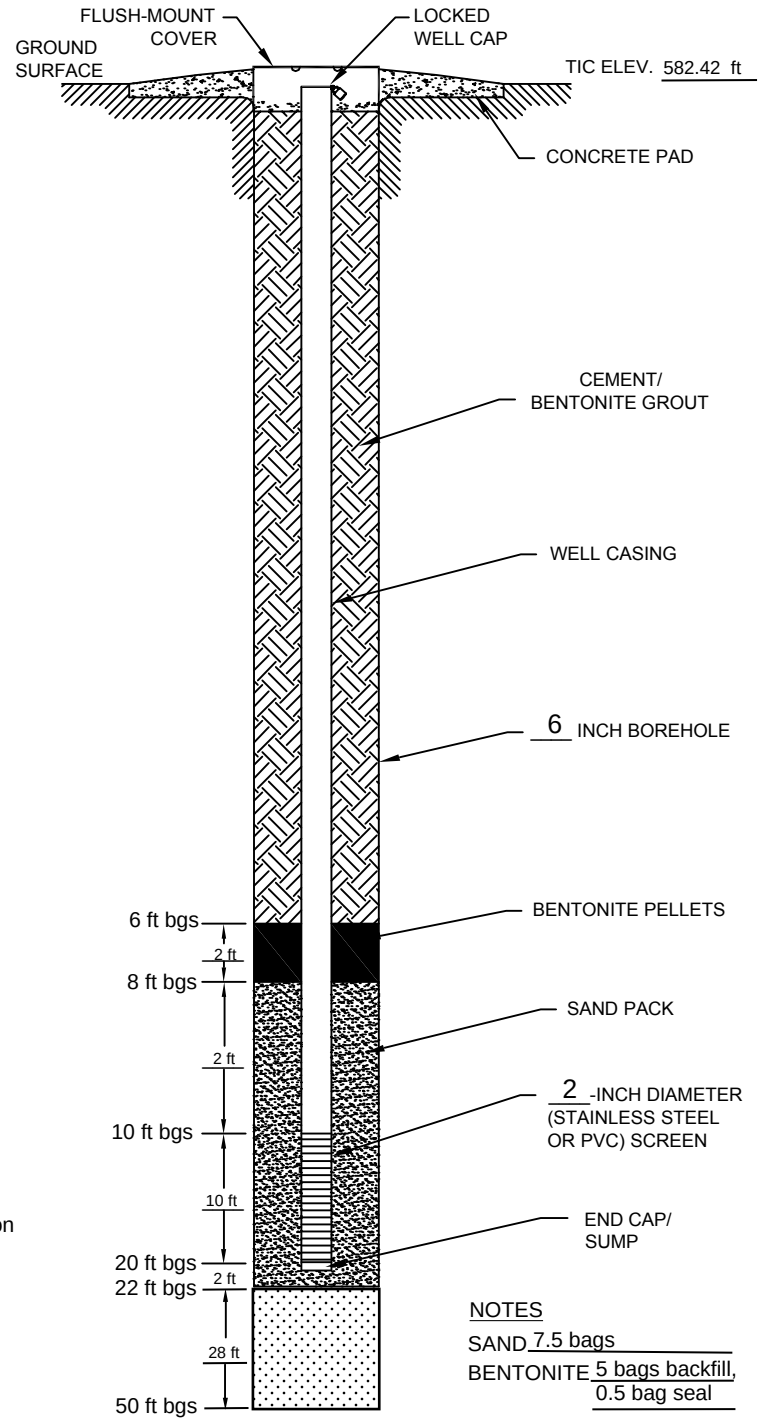
BORING DATA
TOTAL DEPTH OF BOREHOLE 50 ft bgs
HOLE DIAMETER 6-in
DRILLING METHOD Sonic
DRILLING FLUID Water

CONSTRUCTION DATA
CASING LENGTH
CASING DIAMETER 2-in
CASING MATERIAL Sch. 40 PVC
JOINT DESIGN Threaded (Flush)
SEAL Bentonite Chips (Medium)
FILTER PACK No. 1 Sand
SCREEN SIZE 0.010
SCREEN MATERIAL Sch. 40 PVC
GROUT Portland/Benseal

A. CASING ELEVATION ABOVE GROUND
B. DEPTH TO TOP OF CASING
C. DEPTH OF TOP OF GROUT
D. DEPTH TO TOP OF FINE SAND
E. DEPTH TO TOP OF SAND 8 ft bgs
F. DEPTH TO TOP OF SCREEN 10 ft bgs
G. TOTAL WELL DEPTH 20 ft bgs
H. WATER FIRST NOTICED 5 ft bgs
I. DEPTH TO WATER AT COMPLETION

CLIENT US EPA Region 5
DRILLING CONTRACTOR Cascade Environmental
DRILL RIG LS 250 Minisonic
DRILLERS Chris Bond, Malik Thompson, Shaun Walton
INSTALLATION DATE 09/20/2023
LOGGED BY Jason Wagenmaker
SUPERVISOR GEOLOGIST Matt Renko

NOT TO SCALE



CDM

MONITORING WELL CONSTRUCTION DETAILS

PROJECT McLouth Steel Corp. Superfund Site
LOCATION Trenton, MI

WELL NO. RI-MW-31

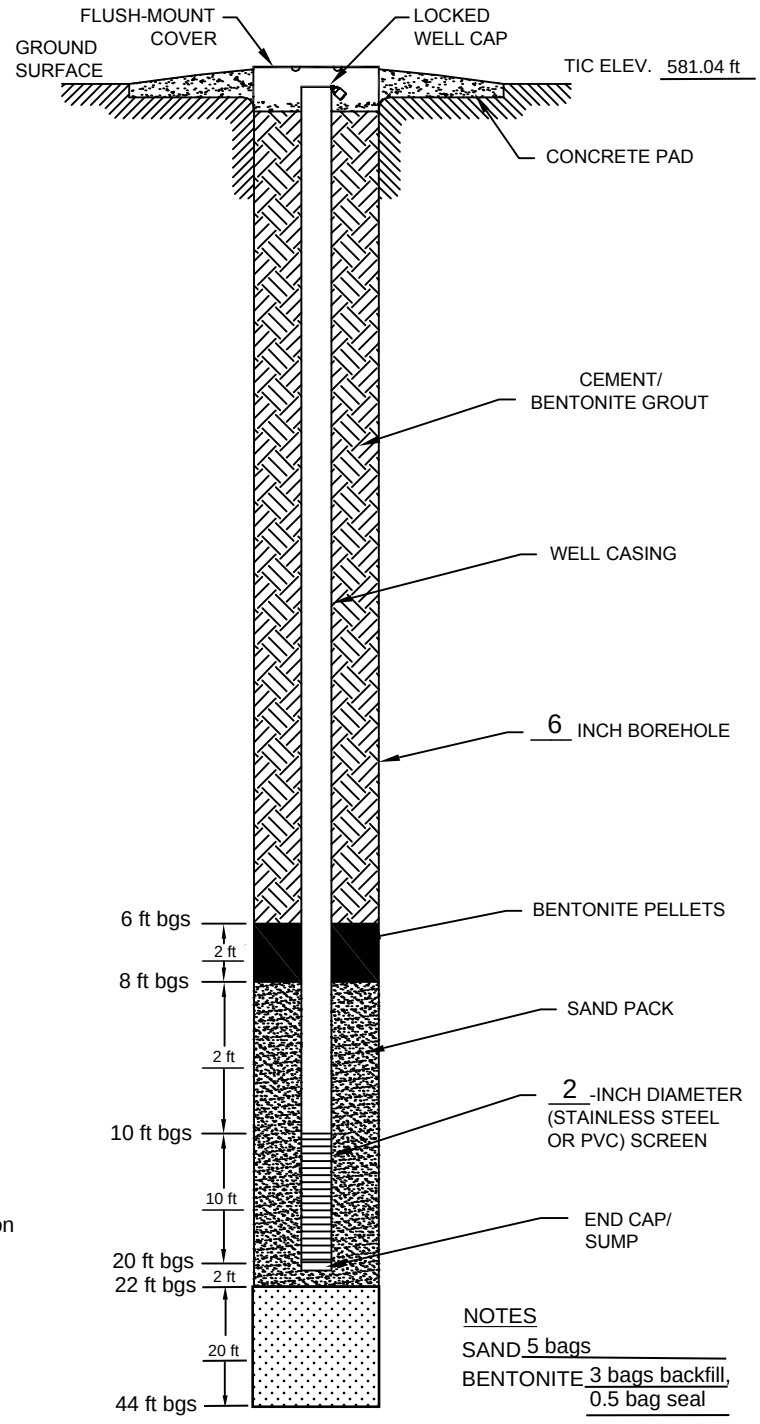
BORING DATA
TOTAL DEPTH OF BOREHOLE 44 ft bgs
HOLE DIAMETER 6-in
DRILLING METHOD Sonic
DRILLING FLUID Water

CONSTRUCTION DATA
CASING LENGTH
CASING DIAMETER 2-in
CASING MATERIAL Sch. 40 PVC
JOINT DESIGN Threaded (Flush)
SEAL Bentonite Chips (Medium)
FILTER PACK No. 1 Sand
SCREEN SIZE 0.010
SCREEN MATERIAL Sch. 40 PVC
GROUT Portland/Benseal

A. CASING ELEVATION ABOVE GROUND
B. DEPTH TO TOP OF CASING
C. DEPTH OF TOP OF GROUT
D. DEPTH TO TOP OF FINE SAND
E. DEPTH TO TOP OF SAND 8 ft bgs
F. DEPTH TO TOP OF SCREEN 10 ft bgs
G. TOTAL WELL DEPTH 20 ft bgs
H. WATER FIRST NOTICED 7 ft bgs
I. DEPTH TO WATER AT COMPLETION

CLIENT US EPA Region 5
DRILLING CONTRACTOR Cascade Environmental
DRILL RIG LS 250 Minisonic
DRILLERS Chris Bond, Malik Thompson, Shaun Walton
INSTALLATION DATE 09/20/2023
LOGGED BY Jason Wagenmaker
SUPERVISOR GEOLOGIST Matt Renko

NOT TO SCALE



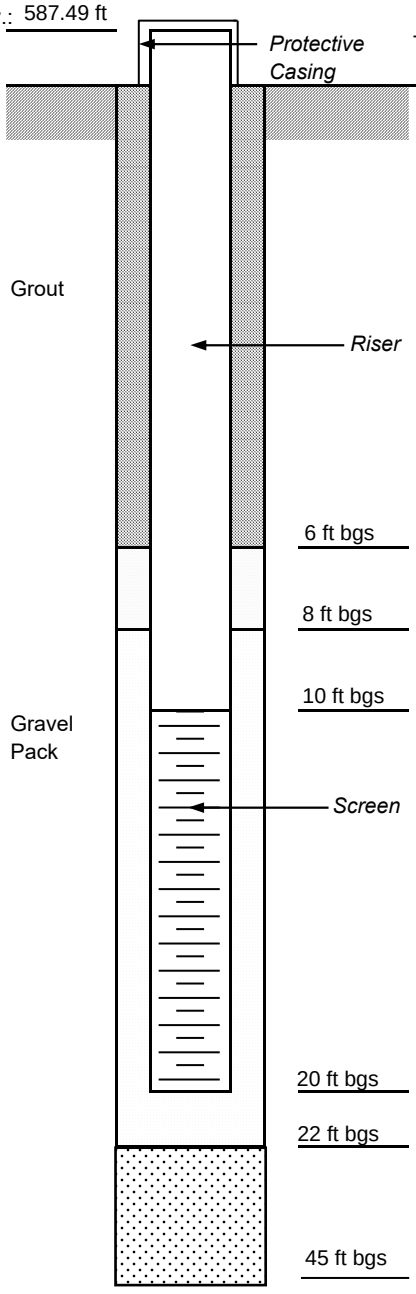
CDM

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-32
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 587.49 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 45 ft bgs
Depth To Water: 7 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	6 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 6 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/18/2023	09/18/2023
Installation:	09/18/2023	09/18/2023

NOTES

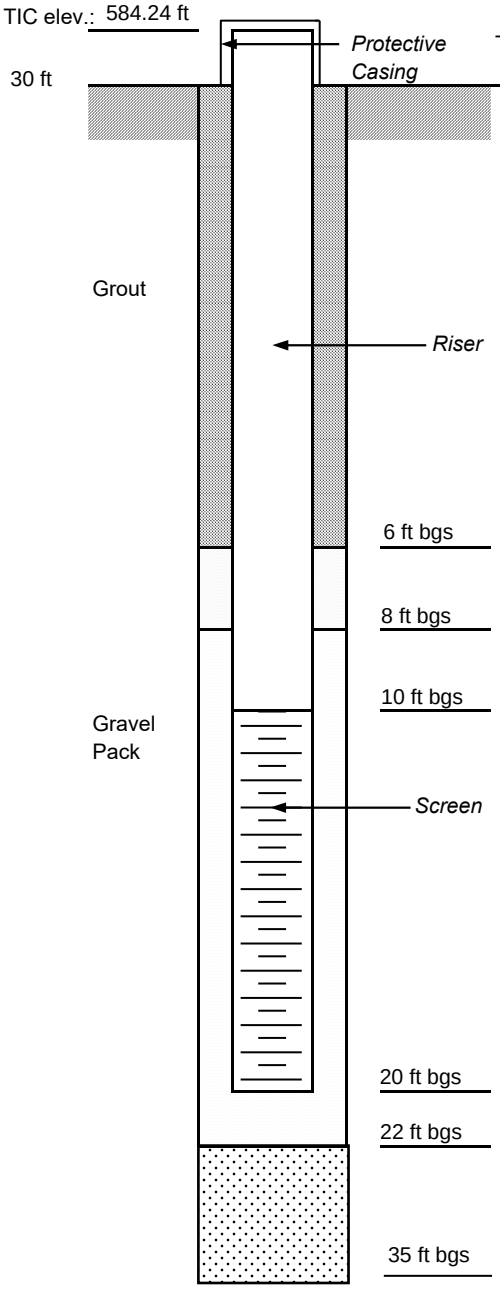
Sand: 6 bags
Bentonite: 4 bags backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-35
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 584.24 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 35 ft bgs
Depth To Water: 3 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	6 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 6 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/18/2023	09/18/2023
Installation:	09/18/2023	09/18/2023

NOTES

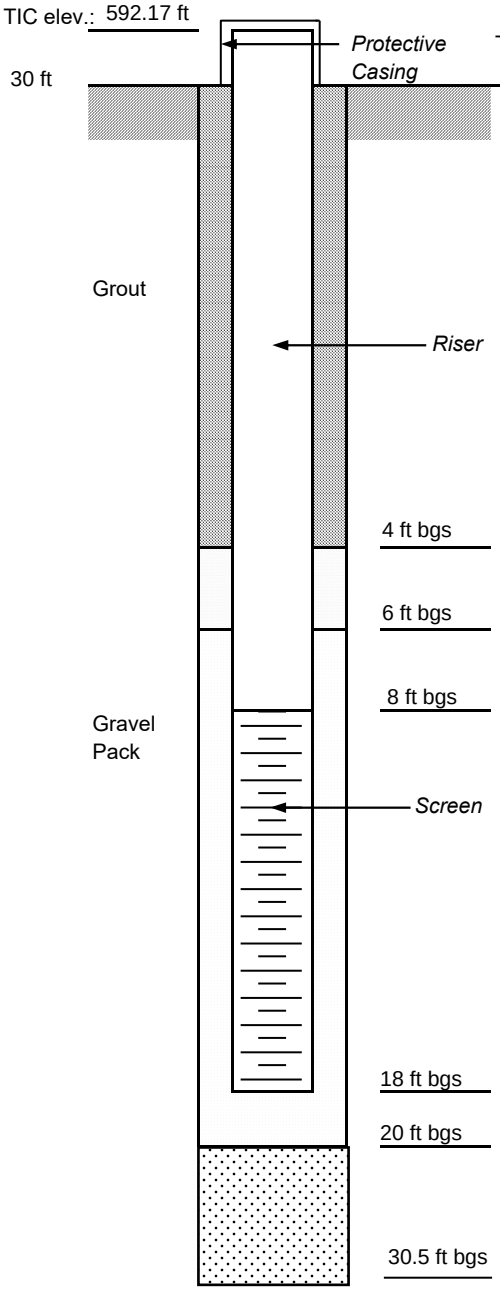
Sand: 5 bags
Bentonite: 1.5 bags backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-39
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.17 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 30.5 ft bgs
Depth To Water: 6 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	8 - 18 ft bgs
Filter Material:	No. 1 Sand	Setting:	6 - 20 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	4 - 6 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 4 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/13/2023	09/13/2023
Installation:	09/13/2023	09/13/2023

NOTES

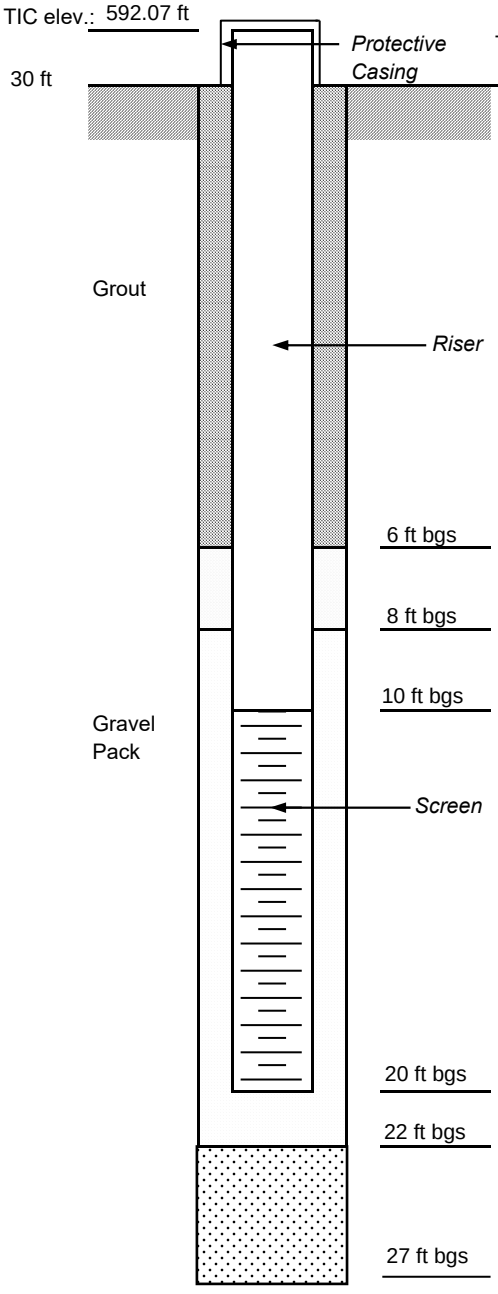
Sand: 4.25 bags
Bentonite: 1.5 bags backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-40
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.07 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Shaun Walton
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 27 ft bgs
Depth To Water: 10 ft
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	10 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	8 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	6 - 8 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 6 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/13/2023	09/13/2023
Installation:	09/13/2023	09/13/2023

NOTES

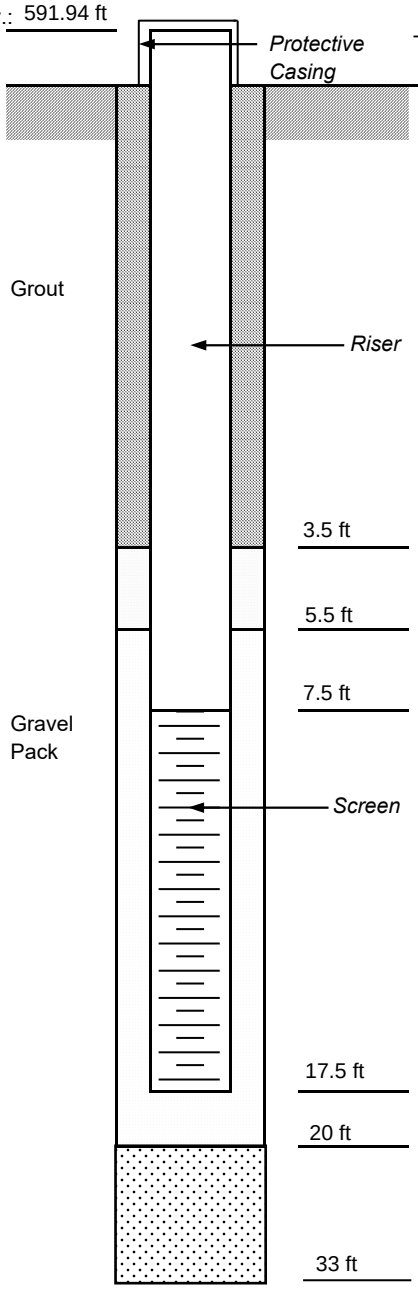
Sand: 3.5 bags
Bentonite: 1 bag backfill, 0.5 bag seal

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-41
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 591.94 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond, Malik Thompson, Colby Kanthook
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths:
Total Depth: 33 ft bgs
Depth To Water: 5 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	7.5 - 17.5 ft bgs
Filter Material:	No. 1 Sand	Setting:	5.5 - 20 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	3.5 - 5.5 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 3.5 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs
Joint Design:	Threaded (Flush)		

TIME LOG

	Started	Completed
Drilling:	09/07/2023	09/07/2023
Installation:	09/07/2023	09/07/2023

NOTES

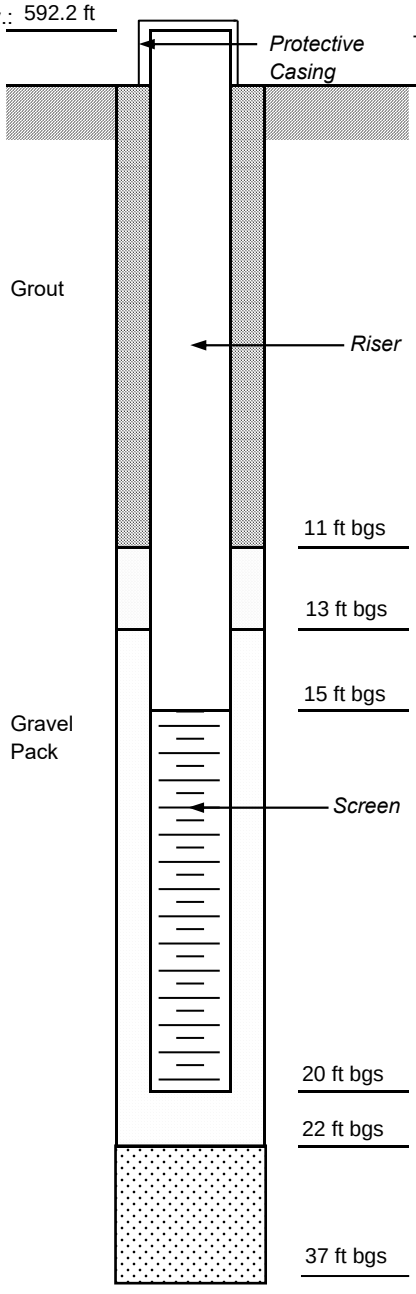
Sand: 4 bags
Bentonite: 3.5 bags

CDM Smith

WELL CONSTRUCTION SUMMARY

Project: McLouth Steel Corp. Superfund Site
Location: Trenton, MI
Well No.: RI-MW-42
Client: US EPA Region 5
Logged By: Jason Wagenmaker
Permit No.: N/A

TIC elev.: 592.2 ft



Type: Stick Up Single Case Well

DRILLING SUMMARY

Drilling Company: Cascade Environmental
Drillers: Chris Bond
Drill Rig/Model: LS 250 Minisonic
Borehole Diameters: 6-in
Drilling Fluid: Water
Bits/Depths: 4/10
Total Depth: 37 ft bgs
Depth To Water: Approx. 15 ft bgs
Supervisor Geologist: Matt Renko

WELL DESIGN

Casing Material:	Sch. 40 PVC	Diameter:	2-in
Screen Material:	Sch. 40 PVC	Diameter:	2-in
Slot Size:	0.010	Setting:	15 - 20 ft bgs
Filter Material:	No. 1 Sand	Setting:	13 - 22 ft bgs
Seals Material:	Bentonite Chips (Medium)	Setting:	11 - 13 ft bgs
Grout:	Portland/Benseal	Setting:	2 - 11 ft bgs
Surface Casing Material:	Steel	Setting:	0 - 2 ft bgs

TIME LOG

	Started	Completed
Drilling:	09/21/2023	09/21/2023
Installation:	09/21/2023	09/21/2023

Attachment B

Analytical Data Tables

Table A - VOC Detection Results

				Location	N106	N112S	N115	N118	N119	N121S	N125	N129	N130
				Sample #	MW-N106	MW-N112S	RI-MW-N115-Y1	MW-N118	MW-N119	MW-N121S	MW-N125	MW-N129	MW-N130
				Start Depth	7.5	9.02	6.72	11.2	10.44	6.93	12.7	12.65	12.9
				End Depth	17.5	19.02	16.72	21.2	20.44	16.93	22.7	12.65	22.9
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Type	N	N	N	N	N	N	N	N	N
				Parent Sample #									
				Sample Date	11/30/2023	12/1/2023	12/1/2023	11/30/2023	11/30/2023	11/30/2023	11/30/2023	11/30/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units									
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l	0.5 U	0.5 U	0.49 J	0.5 U	0.5 U	0.52	0.27 J	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.67
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 J	0.47 J
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l	6 U	5.8 U	5 U	7.3 U	6.6 U	8 U	6.2 U	6 U	8.3 U
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l	0.5 U	**1.7**	0.5 U	**1.6**	0.3 J	0.5 U	0.5 U	**0.79**	**0.84**
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.45 J	0.42 J
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l	0.5 U	0.78	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l	0.5 U	1.6	0.5 U	1.8	0.31 J	0.14 J	0.5 U	0.5 U	0.3 J
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l	0.5 U	1.2	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.39 J
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.28 J
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l	0.5 U	0.68	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.19 J
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2.3 J
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.41 J
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l	0.5 U	0.5 U	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U	0.28 J	1.8
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l	0.5 U	0.5 U	0.5 U	1.3	0.2 J	0.5 U	0.5 U	0.32 J	0.76
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l	0.5 U	0.51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l	0.04 J	0.08	0.05 U	0.14	0.08	0.05 U	0.03 J	0.05 U	0.07
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l	0.05 U	**1.9**	0.05 U	**0.08**	**0.05**	**0.04 J**	0.05 U	0.05 U	**0.05**

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number

FD - Field duplicate

N - Field sample

J - The identification of the analyte is acceptable; the reported value is an estimate

J+ - The result is an estimated quantity, but the results may be biased high

J- - The result is an estimated quantity, but The results may be biased low

U - Not Detected

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table A - VOC Detection Results

					Location	N136	N139	N140S	N142S	N142S	N144	RI-MW-01	RI-MW-02	RI-MW-02
					Sample #	MW-N136	MW-N139	MW-N140S	MW-N142S	RI-MW-N142SA	MW-N144	RI-MW-01-Y1	RI-MW-02A-Y1	RI-MW-02-Y1
					Start Depth	7.45	5.58	7.62	5.45	5.45	7.9	5	5	5
					End Depth	17.45	15.58	17.62	15.45	15.45	17.9	10	10	10
					Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	FD	N	N	FD	N
					Parent Sample #					MW-N142S			RI-MW-02-Y1	
					Sample Date	11/29/2023	11/28/2023	11/29/2023	12/1/2023	12/1/2023	11/30/2023	11/13/2023	11/16/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units										
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.79	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l	0.5 U	5.4	1.4	0.5 U	0.5 U	0.26 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l	0.05 U	0.05 U	0.05 U	0.5 UJ	0.5 UJ	0.05 U	0.05 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.36 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l	0.5 U	0.5 U	0.5 U	0.57	0.52	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l	0.5 U	2	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l	5 U	5 U	5.6 U	5 U	5 U	5.1 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l	0.22 J	**0.52**	**3.5**	**0.79**	**0.77**	**0.58**	0.5 U	0.5 U	**0.46 J**	0.44 J
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l	0.5 U	0.33 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l	0.5 U	0.5 U	0.43 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l	0.5 U	0.5 U	0.5 U	**1.2**	**1.6 J-**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l	0.25 J	0.38 J	0.58	**2.8**	**2.8**	0.41 J	0.5 U	0.16 J	0.17 J	
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l	0.5 U	0.5 U	0.94	0.13 J	0.5 U	0.16 J	0.5 U	0.25 J	0.27 J	
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l	0.5 U	0.83	0.49 J	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l	0.5 U	0.22 J	0.86	0.5 U	0.5 U	0.2 J	0.5 U	0.98	1.1	
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l	0.5 U	2.3	1.5	0.5 U	0.5 U	0.39 J	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l	0.5 U	1.5	0.78	0.5 U	0.5 U	0.2 J	0.5 U	0.31 J	0.31 J	
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l	0.5 U	1.1	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l	0.5 U	0.99	1.1	0.2 J	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l	0.5 U	0.5 U	0.5 U	0.51	0.51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l	**0.32**	0.09 U	0.04 J	**0.78**	**0.76**	0.04 J	0.05 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l	0.05 U	**0.55 J+**	**4.1**	**0.54**	**0.53**	**0.18**	0.05 U	0.5 U	0.5 U	0.5 U

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number

FD - Field duplicate

N - Field sample

J - The identification of the analyte is acceptable; the reported value is an estimate

J+ - The result is an estimated quantity, but the results may be biased high

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U - Not Detected

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table A - VOC Detection Results

				Location	RI-MW-03	RI-MW-05	RI-MW-07	RI-MW-08	RI-MW-10	RI-MW-11	RI-MW-12	RI-MW-13	RI-MW-13
				Sample #	RI-MW-03-Y1	RI-MW-05-Y1	RI-MW-07-Y1	RI-MW-08-Y1	RI-MW-10-Y1	RI-MW-11-Y1	RI-MW-12-Y1	RI-MW-13A-Y1	RI-MW-13-Y1
				Start Depth	5	5	11	10	5	6	5	10	10
				End Depth	15	15	21	20	15	16	15	20	20
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Type	N	N	N	N	N	N	N	FD	N
				Parent Sample #								RI-MW-13-Y1	
				Sample Date	11/15/2023	11/15/2023	11/14/2023	11/15/2023	11/28/2023	11/28/2023	11/29/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units									
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l	0.5 U	0.5 R	**19**	2.1	0.5 U	0.22 J	0.5 U	**140**	**140**
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l	0.5 U	0.5 R	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.39 J	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l	0.5 U	0.5 R	0.5 U	0.13 J	0.5 U	1.6	0.32 J	4.6	4.9
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l	0.5 U	0.5 R	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l	0.5 U	0.5 R	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	1.2	0.5 U	5.5	5.9
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.28 J	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l	5 U	5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l	5 U	5 U	9.4 U	6.4 U	13 U	5.7 U	11 U	11 U	9.2 U
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l	0.5 U	0.5 R	0.5 U	0.25 J	0.5 U	**0.48 J**	**1.3**	**2.6**	**2.7**
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l	0.5 UJ	0.5 R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l	0.5 U	0.5 R	0.5 U	0.23 J	0.5 U	2.2	0.65	0.27 J	0.26 J
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l	0.5 U	0.5 R	0.51	0.5 U	0.5 U	0.5 U	0.5 U	1.7	2
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l	0.5 U	**4.7 J-**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l	0.5 U	0.5 R	0.66	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l	0.5 U	0.5 R	0.5 U	0.17 J	0.5 U	0.31 J	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.18 J	0.5 U	0.4 J	0.38 J
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	**1.8**	0.5 U	0.81	0.86
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.86	0.5 U	0.68	0.7
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	11	0.5 U	4.2	4.5
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l	5 U	5 R	5.1	5 U	5 U	5 U	2.7 J	1.4 J	1.2 J
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l	5 U	5 R	5 U	5 U	5 U	5 U	3.8 J	5 U	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.44 J	0.5 U	0.59	0.68
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l	0.5 U	0.5 R	0.5 U	0.13 J	0.5 U	7.8	0.21 J	6.4	6.6
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.22 J	0.23 J
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l	0.5 U	0.14 J	0.5 U	0.24 J	0.5 U	1.1	0.61	2	2.1
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l	0.5 U	**1.2 J**	0.05 U	0.5 U	0.05 U	0.17 U	0.05 U	0.02 J	0.02 J
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l	0.5 U	0.5 R	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	**0.02 J**	**0.02 J**

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
FD - Field duplicate
N - Field sample
J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table A - VOC Detection Results

					Location	RI-MW-15	RI-MW-16	RI-MW-17	RI-MW-18	RI-MW-20	RI-MW-21	RI-MW-22	RI-MW-23	RI-MW-23
					Sample #	RI-MW-15-Y1	RI-MW-16-Y1	RI-MW-17-Y1	RI-MW-18-Y1	RI-MW-20-Y1	RI-MW-21-Y1	RI-MW-22-Y1	RI-MW-23A-Y1	RI-MW-23-Y1
					Start Depth	11	10	10	8	12	11	13	9.5	9.5
					End Depth	21	20	10	18	22	21	23	19.5	19.5
					Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	N	N	N	FD	N
					Parent Sample #								RI-MW-23-Y1	
					Sample Date	11/16/2023	11/15/2023	11/14/2023	11/16/2023	11/17/2023	11/14/2023	11/14/2023	11/15/2023	11/15/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units										
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l		0.5 U	25 R	**2.2**	0.5 U	0.5 U	**0.99**	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l		0.5 U	25 R	**15**	**6.5**	1.9	0.5 U	1.1	**4.7**	**4.8**
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l		0.5 U	25 R	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l		3	25 R	0.97	0.33 J	**80 J**	**21**	0.76	**12**	**12**
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l		0.5 U	25 R	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l		0.5 U	25 R	0.05 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l		0.5 U	25 R	0.5 U	**0.27 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l		0.5 U	25 R	0.51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l		0.45 J	25 R	0.5 U	0.15 J	**30 J**	**14**	1.2	1.6	1.6
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l		5 U	250 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l		10 U	250 R	5 U	5 U	6.4 U	6.8 U	8.6 U	8.9 U	8.3 U
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l		**0.99**	25 R	**4.6**	**0.99**	**1.4**	**1.8**	0.38 J	**11**	**10**
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l		0.5 UJ	25 R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l		0.5	25 R	0.45 J	0.4 J	0.5 U	0.48 J	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l		0.5 U	25 R	0.5 U	**0.83**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.26 J	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l		0.5 U	25 R	0.85	0.33 J	0.5 U	0.5 U	0.3 J	0.5 U	0.21 J
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l		0.09 J	25 R	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l		0.37 J	25 R	**4.5**	**6.3**	1.5	0.56	0.15 J	**6.9**	**6.9**
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l		1.1	25 R	25	0.15 J	1.1	2.6	0.22 J	0.57	0.66
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l		0.82	25 R	**2.1**	0.12 J	**18**	**5.9**	0.45 J	**19**	**21**
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l		0.45 J	25 R	3.4	0.5 U	11	2.6	0.5 U	2.2	2.2
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l		2.1	25 R	1.5	0.27 J	**79 J**	**34**	2.2	**57**	**62**
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l		5 U	250 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l		5 U	250 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l		1	25 R	20	0.18 J	1.8	2.2	0.21 J	0.54	0.54
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l		1.3	25 R	0.26 J	0.23 J	**47 J**	**21**	2.2	**20**	**21**
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l		0.5 U	25 R	0.5 U	0.5 U	1.7	0.78	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l		0.5 U	25 R	0.5 U	0.29 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l		3.7	25 R	0.27 J	0.25 J	4	4.6	0.71	9.1	9.2
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l		0.5 U	25 R	0.5 U	0.32 J	0.5 U	0.5 U	0.5 U	0.24 J	0.24 J
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l		0.5 U	25 R	0.12	**1**	0.5 U	0.03 J	0.07	**3.9**	**3.9**
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l		0.5 U	25 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l		0.5 U	25 R	**6.1**	**1.5**	**0.24 J**	**0.09**	**0.04 J**	0.5 U	0.5 U

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number

FD - Field duplicate

N - Field sample

J - The identification of the analyte is acceptable; the reported value is an estimate

J+ - The result is an estimated quantity, but the results may be biased high

J- - The result is an estimated quantity, but The results may be biased low

U - Not Detected

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table A - VOC Detection Results

					Location	RI-MW-24	RI-MW-25	RI-MW-26	RI-MW-27	RI-MW-29	RI-MW-31	RI-MW-32	RI-MW-40	RI-MW-41
					Sample #	RI-MW-24-Y1	RI-MW-25-Y1	RI-MW-26-Y1	RI-MW-27-Y1	RI-MW-29-Y1	RI-MW-31-Y1	RI-MW-32-Y1	RI-MW-40-Y1	RI-MW-41-Y1
					Start Depth	26.5	12	12	16	7	10	10	10	7.5
					End Depth	36.5	22	22	26	17	20	20	20	17.5
					Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	N	N	N	N	N
					Parent Sample #									
					Sample Date	11/16/2023	11/16/2023	11/16/2023	11/17/2023	11/27/2023	11/28/2023	11/16/2023	11/27/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units										
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.73**
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l		0.5 R	0.26 J	0.5 U	0.5 U	**10**	0.5 U	0.45 J	0.5 U	0.5 UJ
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.05 U	0.5 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l		0.61 J	5	**6.1**	0.39 J	0.21 J	0.5 U	0.2 J	0.5 U	**57**
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.05 U	0.5 UJ
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.5 U	0.05 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l		0.48 J	0.19 J	2.9	0.2 J	0.43 J	0.5 U	0.5 U	0.5 U	**32**
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l		5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l		5 R	5.5 U	5 U	5 U	7.8 U	18 J+	5.2 U	5 U	19 J+
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l		0.39 J	**1.1**	**0.57**	**0.53**	0.4 J	**0.55**	**1.1**	0.35 J	**8.1**
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l		0.5 R	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l		0.5 R	0.26 J	0.5 U	0.5 U	0.5 U	0.69	0.5 U	0.5 U	0.29 J
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.8	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.8 J-**
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l		0.5 R	0.5 U	0.23 J	0.17 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l		0.5 R	0.5	0.5 U	0.09 J	0.15 J	0.34 J	0.5 U	0.5 U	0.92
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l		0.51 J	1.4	0.21 J	0.29 J	0.5 U	0.5 U	0.54	0.5 U	0.81
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l		0.5 R	0.96	0.56	0.5 U	0.17 J	0.5 U	0.12 J	0.5 U	**67**
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l		0.15 J	1	0.62	0.2 J	0.5 U	0.5 U	0.62	0.5 U	6.4
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l		0.27 J	0.78	1.9	0.33 J	0.5 U	0.5 U	0.24 J	0.5 U	**420**
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l		5 R	5 U	5 U	5 U	5 U	2.5 J	5 U	5 U	3.6 J
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l		5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l		0.4 J	0.53	0.53	0.26 J	0.5 U	0.5 U	0.39 J	0.5 U	1.6
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l		0.5 R	0.5 U	0.5 U	0.27 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l		0.54 J	0.29 J	1.7	0.45 J	0.5	0.5 U	0.24 J	0.5 U	**180**
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.4
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.35 J	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	1.3	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l		0.64 J	0.22 J	0.3 J	0.28 J	0.35 J	0.3 J	0.15 J	0.5 U	42
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l		0.5 R	0.17 J	0.5 U	0.5 U	0.19 J	0.05 U	0.5 U	0.05 U	0.21 J
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l		0.5 R	0.5 U	0.5 U	0.5 U	**0.03 J**	**0.3 J+**	0.5 U	0.05 U	**0.11 J**

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
FD - Field duplicate
N - Field sample
J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table A - VOC Detection Results

			Location	RI-MW-42	
			Sample #	RI-MW-42-Y1	
			Start Depth	15	
			End Depth	20	
			Depth Unit	ft	
			Sample Type	N	
			Parent Sample #		
			Sample Date	11/27/2023	
Method Group	Analyte	CAS #	Groundwater PAL	Units	
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	200	ug/l	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	0.076	ug/l	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	24.2	ug/l	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	**0.041**	ug/l	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	**2.8**	ug/l	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	7	ug/l	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	0.7	ug/l	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	0.00075	ug/l	0.05 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	0.4	ug/l	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	**5.6**	ug/l	0.5 U
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.00033	ug/l	0.05 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	0.0075	ug/l	0.05 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	30	ug/l	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	**0.17**	ug/l	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	0.82	ug/l	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	**6**	ug/l	0.5 U
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	6.6	ug/l	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	0.48	ug/l	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	3.8	ug/l	5 U
001-Mclouth_VOC	ACETONE	67-64-1	730	ug/l	5.2 U
001-Mclouth_VOC	BENZENE	71-43-2	**0.46**	ug/l	0.5 U
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	8.3	ug/l	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	0.13	ug/l	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	3.3	ug/l	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	0.75	ug/l	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	81	ug/l	0.5 U
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	**0.415**	ug/l	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	7.8	ug/l	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	430	ug/l	0.5 U
001-Mclouth_VOC	CHLOROFORM	67-66-3	**0.22**	ug/l	**0.6 J+**
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	19	ug/l	0.5 U
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	**2.5**	ug/l	0.5 U
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	0.47	ug/l	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	102	ug/l	0.5 U
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	0.87	ug/l	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	0.744	ug/l	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	**1.5**	ug/l	0.5 U
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	45	ug/l	0.5 U
001-Mclouth_VOC	m,p-Xylene	179601-23-1	**19**	ug/l	0.5 U
001-Mclouth_VOC	METHYL ACETATE	79-20-9	2000	ug/l	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	560	ug/l	5 U
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	630	ug/l	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2		ug/l	0.5 U
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	5	ug/l	0.5 U
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	**19**	ug/l	0.5 U
001-Mclouth_VOC	STYRENE	100-42-5	100	ug/l	0.5 U
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	14	ug/l	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	4.1	ug/l	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	110	ug/l	0.25 J
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	6.8	ug/l	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.47	ug/l	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	**0.28**	ug/l	0.05 U
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	520	ug/l	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	**0.019**	ug/l	0.05 U

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
FD - Field duplicate
N - Field sample
J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table B - SVOC Detection Results

					Location	N106	N112S	N115	N118	N119	N121S	N125	N129	N130	N136	N139	N140S	N142S	N142S	N144	RI-MW-01
					Sample #	MW-N106	MW-N112S	RI-MW-N115-Y1	MW-N118	MW-N119	MW-N121S	MW-N125	MW-N129	MW-N130	MW-N136	MW-N139	MW-N140S	MW-N142S	RI-MW-N142SA	MW-N144	RI-MW-01-Y1
					Start Depth	7.5	9.02	6.72	11.2	10.44	6.93	12.7	12.65	12.9	7.45	5.58	7.62	5.45	5.45	7.9	5
					End Depth	17.5	19.02	16.72	21.2	20.44	16.93	22.7	12.65	22.9	17.45	15.58	17.62	15.45	15.45	17.9	10
					Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
					Parent Sample #													MW-N142S			
					Sample Date	11/30/2023	12/1/2023	12/1/2023	11/30/2023	11/30/2023	11/30/2023	11/30/2023	11/30/2023	11/29/2023	11/29/2023	11/28/2023	11/29/2023	12/1/2023	12/1/2023	11/30/2023	11/13/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units																	
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	0.017	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	**0.46**	ug/l	0.2 U	**0.61 J+**	0.21 U	0.21	**0.54**	**1.2**	**1**	**0.97**	**0.81**	0.2 U	0.2 U	**0.92**	**5 J+**	**4.7**	**1.2**	0.21 U
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	**1.1**	ug/l	0.1 U	0.52	0.1 U	0.043 J	0.11	0.17	0.13	0.33	0.27 J	0.1 U	1	**22**	0.063 J	0.11	**1.1**	0.11 U
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	24	ug/l	5 U	5.2 UJ	5.2 UJ	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 UJ	4.9 UJ	5 U	5.3 U
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	120	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	1.2	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	4.6	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	**36**	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	7.2	5 U	5 U	2.7 J	2.7 J	3.5 J	5 U	5.3 U
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	3.9	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	0.24	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	0.049	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	**75**	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	9.1	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	**3.6**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 J	0.071 J	0.1 U	0.19	0.4 U	0.1 U	1.7	0.31 J	0.1 U	0.059 J	1.1	0.11 U
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	**93**	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	19	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	20	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	0.13	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	3-NITROANILINE	99-09-2		ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	0.15	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3		ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	140	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	0.37	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3		ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	**37**	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	13	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	3.8	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7		ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	53	ug/l	0.1 U	0.39	0.1 U	0.1 U	0.14	0.098 U	0.32	0.064 J	0.4 U	0.1 U	0.5 U	28	0.1 U	0.044 J	1.1	0.11 U
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	52	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.045 J	0.1 U	0.4 U	0.1 U	0.5 U	0.28 J-	0.1 U	0.098 U	0.16	0.11 U
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	190	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	ANTHRACENE	120-12-7	43	ug/l	0.1 U	0.095 J	0.1 U	0.1 U	0.14	0.12	0.26	0.1 U	0.4 U	0.059 J	0.5 U	5.6 J-	0.12	0.15	0.093 J	0.11 U
002-Mclouth_SVOC	ATRAZINE	1912-24-9	0.3	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	19	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	**0.03**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	**1.1**	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	**0.025**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	**0.76 J-**	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	**0.25**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	**0.88 J-**	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	1	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	0.27 J-	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	1	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	0.32 J-	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	16	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	**0.083**	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	5.9	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	0.014	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	71	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5.6	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	990	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	CARBAZOLE	86-74-8	85	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	45	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	CHRYSENE	218-01-9	1.6	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	0.88	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	**0.025**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	0.41 U	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	**0.79**	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	**9.4**	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	1500	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	73000	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	90	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	20	ug/l	10 U	10 UJ	10 UJ	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	9.8 UJ	10 U	11 U
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	80	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.68	0.17	0.28	0.1 U	0.4 U	0.1 U	0.5 U	9	0.1 U	0.098 U	0.21	0.11 U
002-Mclouth_SVOC	FLUORENE	86-73-7	29	ug/l	0.1 U	0.056 J	0.1 U	0.1 U	0.1 U	0.064 J	0.052 J	0.33	0.1 U	0.4 U	0.1 U	0.5 U	17	0.1 U	0.098 U	0.84	0.11 U
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	0.0098	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	0.14	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	0.0189	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	0.33	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	**0.25**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.1 U	0.1 U	0.4 U	0.1 U	0.5 U	**0.33 J-**	0.1 U	0.098 U	0.1 U	0.11 U
002-Mclouth_SVOC	ISOPHORONE	78-59-1	78	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	**0.12**	ug/l	0.1 U	0.042 J	0.1 U	**0.16**	**0.27**	0.098 U	0.1 U	0.086 J	**0.42**	0.04 J	**1.1**	**3**	0.085 J	0.11	**6.6**	0.11 U
002-Mclouth_SVOC	NITROBENZENE	98-95-3	0.14	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	0.011	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	**12**	ug/l	5 U	5.2 U	5.2 U	5 U	5.1 U	4.9 U	5 U	5.2 U	5 U	5 U	5 U	5.2 U	5 U	4.9 U	5 U	5.3 U
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	**0.041**	ug/l	0.2 U	0.21 U	0.21 U	**0.13 J**	**0.092 J**	**0.095 J**	0.2 U	0.21 U	0.8 U	0.2 U	1 U	0.82 U	0.2 U	0.2 U	0.2 U	0.21 U
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	52	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.76	0.098 U	0.58	0.077 J	0.4 U	0.1 U	0.5 U	23	0.1 U	0.083 J	1.2	0.11 U
002-Mclouth_SVOC	PHENOL	108-95-2	580	ug/l	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.8 U	10 U	11 U
002-Mclouth_SVOC	PYRENE	129-00-0	12	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.62	0.12	0.36	0.1 U	0.4 U	0.1 U	0.5 U	6.6	0.1 U	0.098 U	0.15	0.11 U

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

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J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table B - SVOC Detection Results

					Location	RI-MW-02	RI-MW-02	RI-MW-03	RI-MW-05	RI-MW-07	RI-MW-08	RI-MW-10	RI-MW-11	RI-MW-12	RI-MW-13	RI-MW-13	RI-MW-15	RI-MW-16	RI-MW-17	RI-MW-18	RI-MW-19
					Sample #	RI-MW-02A-Y1	RI-MW-02-Y1	RI-MW-03-Y1	RI-MW-05-Y1	RI-MW-07-Y1	RI-MW-08-Y1	RI-MW-10-Y1	RI-MW-11-Y1	RI-MW-12-Y1	RI-MW-13A-Y1	RI-MW-13-Y1	RI-MW-15-Y1	RI-MW-16-Y1	RI-MW-17-Y1	RI-MW-18-Y1	RI-MW-19-Y1
					Start Depth	5	5	5	5	11	10	5	6	5	10	10	11	10	10	8	17
					End Depth	10	10	15	15	21	20	15	16	15	20	20	21	20	10	18	27
					Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
					Sample Type	FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
					Parent Sample #	RI-MW-02-Y1									RI-MW-13-Y1						
					Sample Date	11/16/2023	11/16/2023	11/15/2023	11/15/2023	11/14/2023	11/15/2023	11/28/2023	11/28/2023	11/29/2023	11/29/2023	11/29/2023	11/16/2023	11/15/2023	11/14/2023	11/16/2023	11/20/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units																	
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	0.017	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	**0.46**	ug/l	0.2 U	0.2 U	0.21 U	0.23 U	**11**	0.29	**3.7**	0.2 U	**0.53 J**	**21**	**20 J+**	0.87 U	**20**	**26**	**3.7**	**0.68**
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	**1.1**	ug/l	0.28 J+	0.3 J+	0.1 U	0.1 U	0.19	0.44	1.1 U	0.45 J	0.35 J	**1.5 J+**	1	**2.7 J**	0.11 UJ	**3.6**	0.17 J+	
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	24	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	120	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	1.2	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	4.6	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	2.3 J	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	**36**	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	4.5 J	**180**	**270**	**300**	4.1 J	15 J-	2.1 J	5 U	
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	3.9	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	0.24	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	0.049	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	**75**	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	**720 J+**	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	9.1	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	**3.6**	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.79	1.1 U	0.99 U	1.1	0.42 J+	0.36 J	1.2 J+	0.11 UJ	2.9	0.1 U	
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	**93**	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	5.8 J	**97**	**110**	11 U	15 J-	10 U	10 U	
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	19	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	20	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	0.13	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	3-NITROANILINE	99-09-2		ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	0.15	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3		ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	140	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	0.37	ug/l	10 U	9.8 U	10 R	11 UJ	10 U	9.9 R	11 UJ	9.9 U	11 UJ	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3		ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	**37**	ug/l	10 U	9.8 U	10 R	11 U	3 J	9.9 R	11 U	9.9 U	30	**90**	**99**	7.2 J	**74 J-**	10 U	10 U	
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	3.8	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7		ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	53	ug/l	0.1 U	0.1 U	0.1 U	0.062 J	0.41	0.18	1.1 U	0.99 U	0.43 U	1 U	0.17 J	0.72 J+	0.67 J-	6	0.1 U	
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	52	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.39 J-	0.066 J	0.1 U	
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	190	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	ANTHRACENE	120-12-7	43	ug/l	0.11	0.11	0.058 J	0.11	0.15	0.098 J	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.42 J-	0.27	0.12	
002-Mclouth_SVOC	ATRAZINE	1912-24-9	0.3	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	19	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	**0.03**	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	**0.025**	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	**0.25**	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	1	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	1	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	16	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	**0.083**	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	5.9	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	0.014	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	71	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5.6	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	4.9 J	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	990	ug/l	10 U	9.8 U	10 R	11 U	3.3 J	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	CARBAZOLE	86-74-8	85	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	CHRYSENE	218-01-9	1.6	ug/l	0.1 U	0.098 U	0.1 U	0.06 J	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	**0.025**	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	**0.79**	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	1500	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	73000	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	90	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	20	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 UJ	9.9 U	11 UJ	10 UJ	10 UJ	11 UJ	11 R	10 U	10 U	
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	80	ug/l	0.1 U	0.098 U	0.1 U	1.1	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.16	0.1 U	
002-Mclouth_SVOC	FLUORENE	86-73-7	29	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.34	0.16	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43	0.47 J-	3.1	0.044 J	
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	0.0098	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	0.14	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	0.0189	ug/l	10 U	9.8 U	10 R	11 U	10 U	9.9 R	11 U	9.9 U	11 U	10 U	10 U	11 U	11 R	10 U	10 U	
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	0.33	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	**0.25**	ug/l	0.1 U	0.098 U	0.1 U	0.11 U	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.1 U	0.1 U	
002-Mclouth_SVOC	ISOPHORONE	78-59-1	78	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	**0.12**	ug/l	**0.31**	**0.33 J+**	0.1 U	**0.12 J+**	0.067 J	**5.9**	1.1 U	**0.7 J**	**0.69**	**1.6 J+**	**1.2**	**93**	0.11 UJ	**14**	**0.3 J+**	
002-Mclouth_SVOC	NITROBENZENE	98-95-3	0.14	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	0.011	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	5.4 U	5.6 R	5 U	5 U	
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	**12**	ug/l	5.1 U	4.9 U	5.2 R	5.7 U	5.1 U	5 R	5.4 U	5 U	5.3 U	5.1 U	5.1 U	**19**	5.6 R	2.4 J	5 U	
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	**0.041**	ug/l	0.2 U	0.2 U	0.21 UJ	**0.18 J**	0.2 U	0.2 UJ	2.2 U	2 U	0.85 U	2 U	**0.46 J**	0.87 U	**0.56 J-**	0.2 U	0.2 U	
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	52	ug/l	0.1 U	0.098 U	0.1 U	0.68	0.5	0.29	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.67	0.31 J-	1.2	0.11	
002-Mclouth_SVOC	PHENOL	108-95-2	580	ug/l	10 U	9.8 U	10 R	11 U	1.8 J	6.6 J-	11 U	9.9 U	36	10 U	10 U	7.8 J	50 J-	10 U	10 U	
002-Mclouth_SVOC	PYRENE	129-00-0	12	ug/l	0.1 U	0.098 U	0.1 U	0.65	0.1 U	0.099 U	1.1 U	0.99 U	0.43 U	1 U	0.4 U	0.43 U	0.11 R	0.09 J	0.1 U	

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
FD - Field duplicate
N - Field sample
J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table B - SVOC Detection Results

				Location	RI-MW-20	RI-MW-21	RI-MW-22	RI-MW-23	RI-MW-23	RI-MW-24	RI-MW-25	RI-MW-26	RI-MW-27	RI-MW-29	RI-MW-30	RI-MW-31	RI-MW-32	RI-MW-35	RI-MW-35	RI-MW-39
				Sample #	RI-MW-20-Y1	RI-MW-21-Y1	RI-MW-22-Y1	RI-MW-23A-Y1	RI-MW-23-Y1	RI-MW-24-Y1	RI-MW-25-Y1	RI-MW-26-Y1	RI-MW-27-Y1	RI-MW-29-Y1	RI-MW-30-Y1	RI-MW-31-Y1	RI-MW-32-Y1	RI-MW-35A-Y1	RI-MW-35-Y1	RI-MW-39-Y1
				Start Depth	12	11	13	9.5	9.5	26.5	12	12	16	7	10	10	10	10	10	8
				End Depth	22	21	23	19.5	19.5	36.5	22	22	26	17	20	20	20	20	20	18
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N
				Parent Sample #				RI-MW-23-Y1										RI-MW-35-Y1		
				Sample Date	11/17/2023	11/14/2023	11/14/2023	11/15/2023	11/15/2023	11/16/2023	11/16/2023	11/16/2023	11/17/2023	11/27/2023	11/20/2023	11/28/2023	11/16/2023	11/20/2023	11/20/2023	11/21/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units																
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	0.017	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	**0.46**	ug/l	0.18 J	**0.93 J**	**0.7 J**	**1.1 J**	**0.68**	0.2 U	0.85 U	0.22 U	0.17 J	**1.4**	0.2 U	**0.75**	0.44	0.36	0.27	4 U
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	**1.1**	ug/l	**38**	**1.5**	0.98	**2.7 J**	**7.1 J+**	**2.2 J**	**2.3 J**	**1.4 J+**	4.9 U	0.43		0.98 U	0.79 J+			
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	24	ug/l	4.9 U	5.8 U	5 U	4 J	3.5 J-	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	120	ug/l	4.9 U	5.8 U	5 U	5.8	5.6 J-	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	1.2	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	4.6	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	**36**	ug/l	4.9 U	7.9	2.8 J	26	**71 J-**	5 U	5.3 U	5.4 U	7.5	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	3.9	ug/l	9.7 UJ	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 UJ	10 U			
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	0.24	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	0.049	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	**75**	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	9.1	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	**3.6**	ug/l	**45**	1.1	0.96	0.41 U	**5.1 J+**	0.96 J+	1.6 J+	0.1 U	4.9 U	0.38		0.98 U	0.11 J+			
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	**93**	ug/l	9.7 U	12 U	9.9 U	10 U	8.1 J-	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	19	ug/l	4.9 UJ	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 UJ	5.2 U			
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	20	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	0.13	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 UJ	10 U			
002-Mclouth_SVOC	3-NITROANILINE	99-09-2		ug/l	9.7 UJ	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 UJ	10 U			
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	0.15	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3		ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	140	ug/l	4.9 U	5.8 U	12	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	0.37	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3		ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	**37**	ug/l	3.4 J	4.5 J	1.9 J	10 U	**59 J-**	10 U	11 U	11 U	27	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	3.8	ug/l	9.7 UJ	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 UJ	10 U			
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7		ug/l	9.7 UJ	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 UJ	10 U			
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	53	ug/l	3.4	0.54	0.17	1.5	2.3 J-	1 J+	6.2	0.75	0.084 J-	0.46		0.98 U	0.41 J+			
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	52	ug/l	0.5 J-	0.065 J	0.045 J	0.41 U	0.12 J-	0.71 J+	0.43 U	0.1 U	4.9 U	0.098 U		0.98 U	0.1 U			
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	190	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	ANTHRACENE	120-12-7	43	ug/l	0.51 J-	0.26	0.2	0.22 J	0.27 J-	0.11	0.43 U	0.083 J	0.077 J-	0.24		0.98 U	0.18 J			
002-Mclouth_SVOC	ATRAZINE	1912-24-9	0.3	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	19	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	**0.03**	ug/l	0.097 U	**0.13**	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	**0.068 J**	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	**0.025**	ug/l	0.097 U	**0.1 J**	**0.077 J**	0.41 U	**0.071 J-**	0.1 U	0.43 U	0.11 U	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	**0.25**	ug/l	0.097 U	0.14	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.077 J	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	1	ug/l	0.097 U	0.11 J	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.11 U	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	1	ug/l	0.097 U	0.11 J	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.11 U	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	16	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 UJ	5.2 U			
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	**0.083**	ug/l	**3.2 J**	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	5.9	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	0.014	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	71	ug/l	9.7 UJ	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 UJ	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5.6	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 UJ	5.2 U			
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	990	ug/l	9.7 U	12 U	2.3 J	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	CARBAZOLE	86-74-8	85	ug/l	6.2 J	12 U	9.9 U	3.4 J	3.4 J-	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	CHRYSENE	218-01-9	1.6	ug/l	0.097 U	0.13	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.082 J	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	**0.025**	ug/l	0.097 U	**0.097 J**	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.11 U	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	**0.79**	ug/l	**2.4 J**	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	1500	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	73000	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	90	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	20	ug/l	9.7 U	12 U	9.9 U	10 UJ	9.7 R	10 U	11 UJ	11 U	9.8 U	9.8 U		9.8 UJ	10 UJ			
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	80	ug/l	0.23 J-	0.4	0.34	0.41 U	0.12	0.1 U	0.43 U	0.32	0.098 UJ	0.35		0.98 U	0.21 U			
002-Mclouth_SVOC	FLUORENE	86-73-7	29	ug/l	4.7	0.4	0.096 J	0.91	0.93 J-	0.5	0.86	0.41	0.049 J-	0.2		0.98 U	0.18 J			
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	0.0098	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	0.14	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	0.0189	ug/l	9.7 U	12 U	9.9 U	10 U	9.7 R	10 U	11 U	11 U	9.8 U	9.8 U		9.8 U	10 U			
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	0.33	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	**0.25**	ug/l	0.097 U	0.12	0.099 U	0.41 U	0.097 U	0.1 U	0.43 U	0.11 U	0.098 UJ	0.098 U		0.98 U	0.21 U			
002-Mclouth_SVOC	ISOPHORONE	78-59-1	78	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	**0.12**	ug/l	**32**	**4.4**	**0.66**	0.41 U	**12**	**3.8 J**	**11**	0.1 U	4.9 U	**2**		0.98 U	**0.13 J+**			
002-Mclouth_SVOC	NITROBENZENE	98-95-3	0.14	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	0.011	ug/l	4.9 U	5.8 U	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	**12**	ug/l	4.9 U	3.1 J	5 U	5.1 U	4.9 R	5 U	5.3 U	5.4 U	4.9 U	4.9 U		4.9 U	5.2 U			
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	**0.041**	ug/l	**0.3 J-**	**0.34**	**0.23**	**2.8**	**3.1 J+**	0.2 U	0.85 U	0.22 U	9.8 U	0.2 U		2 U	0.41 U			
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	52	ug/l	4.4	1	0.52	0.98	1 J-	0.3	0.68	0.58	0.073 J-	0.8		0.98 U	0.21			
002-Mclouth_SVOC	PHENOL	108-95-2	580	ug/l	12	7.5 J	4.5 J	10 U	9.7 R	10 U	11 U	11 U	5.2 J	9.8 U		31	10 U			
002-Mclouth_SVOC	PYRENE	129-00-0	12	ug/l	0.19 J-	0.28	0.27	0.41 U	0.11	0.1 U	0.43 U	0.29	0.098 UJ	0.27		0.98 U	0.21 U			

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
FD - Field duplicate
N - Field sample
J - The identification of the analyte is acceptable; the reported value is an estimate
J+ - The result is an estimated quantity, but the results may be biased high
J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table B - SVOC Detection Results

					Location	RI-MW-40	RI-MW-41	RI-MW-42
					Sample #	RI-MW-40-Y1	RI-MW-41-Y1	RI-MW-42-Y1
					Start Depth	10	7.5	15
					End Depth	20	17.5	20
					Depth Unit	ft	ft	ft
					Sample Type	N	N	N
					Parent Sample #			
					Sample Date	11/27/2023	11/14/2023	11/27/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	0.017	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	**0.46**	ug/l		**0.66**	**1.1 J**	**0.97**
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	**1.1**	ug/l		0.064 J	**2.2**	0.11 U
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	24	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	120	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	1.2	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	4.6	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	**36**	ug/l		4.9 U	7	5.3 U
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	3.9	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	0.24	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	0.049	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	**75**	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	9.1	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	**3.6**	ug/l		0.036 J	1.5	0.11 U
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	**93**	ug/l		9.8 U	1.9 J	11 U
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	19	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	20	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	0.13	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	3-NITROANILINE	99-09-2		ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	0.15	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3		ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	140	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	0.37	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3		ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	**37**	ug/l		9.8 U	7.2 J	11 U
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	3.8	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7		ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	53	ug/l		0.098 U	0.39	0.11 U
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	52	ug/l		0.098 U	0.051 J	0.11 U
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	190	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	ANTHRACENE	120-12-7	43	ug/l		0.086 J	0.2	0.11 U
002-Mclouth_SVOC	ATRAZINE	1912-24-9	0.3	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	19	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	**0.03**	ug/l		0.098 U	**0.15**	0.11 U
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	**0.025**	ug/l		0.098 U	**0.14**	0.11 U
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	**0.25**	ug/l		0.098 U	0.2	0.11 U
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	1	ug/l		0.098 U	0.12	0.11 U
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	1	ug/l		0.098 U	0.084 J	0.11 U
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	16	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	**0.083**	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	5.9	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	0.014	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	71	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5.6	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	990	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	CARBAZOLE	86-74-8	85	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	CHRYSENE	218-01-9	1.6	ug/l		0.098 U	0.15	0.11 U
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	**0.025**	ug/l		0.098 U	**0.052 J**	0.11 U
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	**0.79**	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	1500	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	73000	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	90	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	20	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	80	ug/l		0.098 U	0.25	0.11 U
002-Mclouth_SVOC	FLUORENE	86-73-7	29	ug/l		0.098 U	0.17	0.11 U
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	0.0098	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	0.14	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	0.0189	ug/l		9.8 U	10 U	11 U
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	0.33	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	**0.25**	ug/l		0.098 U	0.14	0.11 U
002-Mclouth_SVOC	ISOPHORONE	78-59-1	78	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	**0.12**	ug/l		0.038 J	**13**	0.11 U
002-Mclouth_SVOC	NITROBENZENE	98-95-3	0.14	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	0.011	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	**12**	ug/l		4.9 U	5 U	5.3 U
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	**0.041**	ug/l		0.2 U	**0.37**	0.21 U
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	52	ug/l		0.098 U	0.36	0.11 U
002-Mclouth_SVOC	PHENOL	108-95-2	580	ug/l		9.8 U	3.8 J	11 U
002-Mclouth_SVOC	PYRENE	129-00-0	12	ug/l		0.098 U	0.27	0.11 U

Notes:

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Table C - Pesticide & PCB Detection Results

					Location	N106	N112S	N115	N118	N119	N121S	N125
					Sample #	MW-N106	MW-N112S	RI-MW-N115-Y1	MW-N118	MW-N119	MW-N121S	MW-N125
					Start Depth	7.5	9.02	6.72	11.2	10.44	6.93	12.7
					End Depth	17.5	19.02	16.72	21.2	20.44	16.93	22.7
					Depth Unit	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	N	N	N
					Parent Sample #							
					Sample Date	11/30/2023	12/1/2023	12/1/2023	11/30/2023	11/30/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units								
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.099 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.05 R	0.05 R	0.051 R	0.051 R	0.05 R	0.05 R	0.051 R
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	DIELDRIN	60-57-1	**0.0018**	ug/l	0.099 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.099 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.099 U	0.099 R	0.1 R	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.099 UJ	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.099 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.05 U	0.05 R	0.051 R	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	0.0014	ug/l	0.05 U	0.05 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.05 U	0.05 R	0.051 R	0.051 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.5 UJ	0.5 UJ	0.51 UJ	0.51 UJ	0.5 UJ	0.5 UJ	0.51 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.099 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.099 U	0.099 R	0.1 R	0.1 U	0.099 U	0.1 U	0.1 U
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.099 UJ	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ	0.1 UJ
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	**0.14**	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	**0.0078**	ug/l	0.99 U	0.99 U	1 U	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	0.99 U	0.99 R	1 R	1 U	1 U	0.99 U	1 U
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	5 U	5 U	5.1 U	5.1 U	5 U	5 U	5.1 U

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

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Table C - Pesticide & PCB Detection Results

					Location	N129	N130	N136	N139	N140S	N142S	N142S
					Sample #	MW-N129	MW-N130	MW-N136	MW-N139	MW-N140S	MW-N142S	RI-MW-N142SA
					Start Depth	12.65	12.9	7.45	5.58	7.62	5.45	5.45
					End Depth	12.65	22.9	17.45	15.58	17.62	15.45	15.45
					Depth Unit	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	N	N	N	N	N	FD
					Parent Sample #							MW-N142S
					Sample Date	11/30/2023	11/29/2023	11/29/2023	11/28/2023	11/29/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units								
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.049 R	0.051 R	0.051 R	0.051 R	0.049 R	0.052 R	0.05 R
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	DIELDRIN	60-57-1	**0.0018**	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 R	0.099 R
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.097 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 R	0.05 R
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	0.0014	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 UJ	0.05 UJ
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.049 U	0.051 UJ	0.051 U	0.051 UJ	0.049 UJ	0.052 R	0.05 R
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.49 UJ	0.51 UJ	0.51 UJ	0.51 UJ	0.49 UJ	0.52 UJ	0.5 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.097 U	0.1 UJ	0.1 U	0.1 UJ	0.098 UJ	0.1 R	0.099 R
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.097 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.098 UJ	0.1 UJ	0.099 UJ
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	**0.14**	ug/l	0.97 U	1 UJ	**1.1 J**	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	**0.0078**	ug/l	0.97 U	1 UJ	**0.43 J**	1 UJ	0.98 UJ	1 UJ	0.99 UJ
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	0.97 U	1 UJ	1 U	1 UJ	0.98 UJ	1 R	0.99 R
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	4.9 U	5.1 UJ	5.1 U	5.1 UJ	4.9 UJ	5.2 UJ	5 UJ

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Table C - Pesticide & PCB Detection Results

					Location	N144	RI-MW-02	RI-MW-02	RI-MW-07	RI-MW-08	RI-MW-10	RI-MW-11
					Sample #	MW-N144	RI-MW-02A-Y1	RI-MW-02-Y1	RI-MW-07-Y1	RI-MW-08-Y1	RI-MW-10-Y1	RI-MW-11-Y1
					Start Depth	7.9	5	5	11	10	5	6
					End Depth	17.9	10	10	21	20	15	16
					Depth Unit	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	FD	N	N	N	N	N
					Parent Sample #		RI-MW-02-Y1					
					Sample Date	11/30/2023	11/16/2023	11/16/2023	11/14/2023	11/15/2023	11/28/2023	11/28/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units								
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.051 U	0.049 U	0.049 U	0.049 R	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.1 U	0.097 U	0.097 U	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.051 R	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 R	0.05 R
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	DIELDRIN	60-57-1	**0.0018**	ug/l	0.1 U	0.097 U	0.097 U	**0.015 J-**	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.1 U	0.097 U	0.097 U	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.1 U	0.097 U	0.097 U	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.1 UJ	0.097 U	0.097 U	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.1 U	0.097 UJ	0.097 UJ	0.098 UJ	0.1 U	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	0.0014	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.051 U	0.049 U	0.049 U	0.049 UJ	0.051 UJ	0.053 UJ	0.05 UJ
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.51 UJ	0.49 U	0.49 U	0.49 UJ	0.51 UJ	0.53 UJ	0.5 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.1 U	0.097 UJ	0.097 UJ	0.098 UJ	0.1 U	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.1 U	0.097 U	0.097 U	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.1 UJ	0.097 UJ	0.097 UJ	0.098 UJ	0.1 UJ	0.11 UJ	0.1 UJ
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	**0.14**	ug/l	1 U	0.97 UJ	0.97 UJ	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	**0.0078**	ug/l	1 U	0.97 UJ	0.97 UJ	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	1 U	0.97 U	0.97 U	0.98 UJ	1 UJ	1 U	1 UJ
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	5.1 U	4.9 U	4.9 U	4.9 UJ	5.1 UJ	5.3 UJ	5 UJ

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number
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J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected
R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table C - Pesticide & PCB Detection Results

					Location	RI-MW-12	RI-MW-13	RI-MW-13	RI-MW-23	RI-MW-23	RI-MW-25	RI-MW-29
					Sample #	RI-MW-12-Y1	RI-MW-13A-Y1	RI-MW-13-Y1	RI-MW-23A-Y1	RI-MW-23-Y1	RI-MW-25-Y1	RI-MW-29-Y1
					Start Depth	5	10	10	9.5	9.5	12	7
					End Depth	15	20	20	19.5	19.5	22	17
					Depth Unit	ft	ft	ft	ft	ft	ft	ft
					Sample Type	N	FD	N	FD	N	N	N
					Parent Sample #		RI-MW-13-Y1		RI-MW-23-Y1			
					Sample Date	11/29/2023	11/29/2023	11/29/2023	11/15/2023	11/15/2023	11/16/2023	11/27/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units								
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.053 R	0.049 R	0.048 R	0.051 UJ	0.05 UJ	0.052 U	0.05 R	
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	DIELDRIN	60-57-1	**0.0018**	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	0.0014	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.053 R	0.049 UJ	0.048 UJ	0.051 UJ	0.05 UJ	0.052 U	0.05 UJ	
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.53 R	0.49 UJ	0.48 UJ	0.51 UJ	0.5 UJ	0.52 U	0.5 UJ	
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.11 R	0.097 UJ	0.096 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	**0.14**	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 UJ	1.1 U	
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	**0.0078**	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 UJ	1.1 U	
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	1.1 R	0.97 UJ	0.96 UJ	1 UJ	1 UJ	1 U	1.1 U	
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	5.3 R	4.9 UJ	4.8 UJ	5.1 UJ	5 UJ	5.2 U	5 UJ	

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

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Table C - Pesticide & PCB Detection Results

				Location	RI-MW-31	RI-MW-32	RI-MW-40	RI-MW-41
				Sample #	RI-MW-31-Y1	RI-MW-32-Y1	RI-MW-40-Y1	RI-MW-41-Y1
				Start Depth	10	10	10	7.5
				End Depth	20	20	20	17.5
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/28/2023	11/16/2023	11/27/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.05 R	0.054 U	0.05 R	0.065 UJ
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	DIELDRIN	60-57-1	**0.0018**	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.1 UJ	0.11 UJ	0.1 U	0.13 UJ
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	0.0014	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.05 UJ	0.054 U	0.05 U	0.065 UJ
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.5 UJ	0.54 U	0.5 U	0.65 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.1 UJ	0.11 UJ	0.1 U	0.13 UJ
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.1 UJ	0.11 U	0.1 U	0.13 UJ
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.1 UJ	0.11 UJ	0.1 U	0.13 UJ
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	**0.14**	ug/l	1 UJ	1.1 UJ	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	**0.0078**	ug/l	1 UJ	1.1 UJ	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	1 UJ	1.1 U	1 U	1.3 UJ
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	5 UJ	5.4 U	5 U	6.5 UJ

Notes:

1. Identifies results that exceed the listed PAL value

2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

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R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	N106	N112S	N115	N118	N119
				Sample #	MW-N106	MW-N112S	RI-MW-N115-Y1	MW-N118	MW-N119
				Start Depth	7.5	9.02	6.72	11.2	10.44
				End Depth	17.5	19.02	16.72	21.2	20.44
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	N	N	N	N
				Parent Sample #					
				Sample Date	11/30/2023	12/1/2023	12/1/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	9.5 UJ	9.9 U	11 J	10 U	9.9 U
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	24 UJ	25 U	25 U	26 U	25 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	4.9 UJ	4.9 U	5.2 U	2.8 U	2.7 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	2.8 UJ	2.9 U	2.9 U	3 U	2.9 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.4 UJ	4 U	4.2 U	3.5 U	3.4 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.1 UJ	3.2 U	3.2 U	3.3 U	3.2 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.1 UJ	4.3 U	4.3 U	4.4 U	4.3 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	4.3 UJ	3.7 U	3.5 U	2.9 U	2.8 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.7 UJ	4.2 U	4.6 U	3.6 U	3.5 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.6 UJ	3.7 U	3.7 U	3.8 U	3.7 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	3.2 UJ	3.5 U	3.4 U	2.9 U	2.8 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	2.7 UJ	2.5 U	2.4 U	2.3 U	2.2 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	3.6 UJ	3.7 U	3.7 U	3.8 U	3.7 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	1.7 UJ	2 U	1.7 U	1.3 U	2.8 J
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.8 UJ	1.9 U	2.3 U	1.1 U	1.1 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l					
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	24 UJ	25 U	25 U	26 U	25 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	70 UJ	73 U	74 U	75 U	73 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l					
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

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Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	N121S	N125	N129	N130	N136
				Sample #	MW-N121S	MW-N125	MW-N129	MW-N130	MW-N136
				Start Depth	6.93	12.7	12.65	12.9	7.45
				End Depth	16.93	22.7	12.65	22.9	17.45
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	N	N	N	N
				Parent Sample #					
				Sample Date	11/30/2023	11/30/2023	11/30/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	10 UJ	9.9 UJ	11 U	9.5 U	10 U
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	26 UJ	25 UJ	27 U	24 U	26 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	4.7 UJ	5.5 UJ	4.1 U	2.6 U	2.8 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	3.1 UJ	2.9 UJ	3.1 U	2.8 U	3 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.6 UJ	3.6 UJ	3.7 U	3.3 U	3.5 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.4 UJ	3.2 UJ	3.4 U	3.1 U	3.3 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.5 UJ	4.3 UJ	4.6 U	4.1 U	4.4 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	4.8 UJ	4.3 UJ	3 U	2.7 U	2.9 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.7 UJ	4 UJ	3.8 U	3.4 U	3.6 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.9 UJ	3.7 UJ	4 U	3.6 U	3.8 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	2.9 UJ	3.7 UJ	3 U	2.7 U	2.9 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	3.3 UJ	3.3 UJ	2.4 U	2.1 U	2.2 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	7.2 J	3.7 UJ	4 U	3.6 U	3.8 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	10 J	1.9 UJ	1.4 U	1.5 U	1.7 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.6 UJ	2 UJ	1.2 U	1.1 U	1.2 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l					
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	26 UJ	25 UJ	27 U	24 U	26 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	77 UJ	73 UJ	78 U	70 U	74 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4				UJ	UJ	UJ	
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l	12 J				43 J
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

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Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	N139	N140S	N142S	N142S	N144
				Sample #	MW-N139	MW-N140S	MW-N142S	RI-MW-N142SA	MW-N144
				Start Depth	5.58	7.62	5.45	5.45	7.9
				End Depth	15.58	17.62	15.45	15.45	17.9
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	N	N	FD	N
				Parent Sample #				MW-N142S	
				Sample Date	11/28/2023	11/29/2023	12/1/2023	12/1/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	9.5 U	7.2 J	9.5 U	10 U	9.9 UJ
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	24 U	6 U	24 U	26 U	25 UJ
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	2.6 U	6.9 U	4.3 U	5.9 U	8.6 UJ
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	2.8 U	4.9 U	2.8 U	3 U	5.5 UJ
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.3 U	4.8 U	3.3 U	3.5 U	6 UJ
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.1 U	3.8 U	3.1 U	3.3 U	5.3 UJ
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.1 U	4.9 U	4.1 U	4.4 U	6.2 UJ
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	2.7 U	5 U	2.7 U	3.8 U	8.9 UJ
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.4 U	5.3 U	3.4 U	3.6 U	6.7 UJ
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.6 U	4 U	3.6 U	3.8 U	3.7 UJ
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	2.7 U	3.2 U	2.7 U	3.3 U	4.9 UJ
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	2.1 U	5.2 U	2.1 U	2.7 U	6.1 UJ
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	3.6 U	4.8 U	3.6 U	3.8 U	3.7 UJ
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	5.2 J	2.5 U	1.3 U	1.6 U	3 UJ
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.1 U	2 U	1.1 U	2.1 U	3 UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l					
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	24 U	15 U	24 U	26 U	25 UJ
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	70 U	100 U	70 U	74 U	73 UJ
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l					
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

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Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY					Location	RI-MW-02	RI-MW-02	RI-MW-07	RI-MW-08	RI-MW-10
					Sample #	RI-MW-02A-Y1	RI-MW-02-Y1	RI-MW-07-Y1	RI-MW-08-Y1	RI-MW-10-Y1
					Start Depth	5	5	11	10	5
					End Depth	10	10	21	20	15
					Depth Unit	ft	ft	ft	ft	ft
					Sample Type	FD	N	N	N	N
					Parent Sample #	RI-MW-02-Y1				
					Sample Date	11/16/2023	11/16/2023	11/14/2023	11/15/2023	11/28/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units						
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l		9.5 U	11 U	10 U	10 U	20 J
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l		24 U	27 U	25 U	26 U	50 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l		3.5 U	3.4 U	4.2 U	2.9 U	24 J
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l		2.8 U	3.2 U	2.9 U	3 U	25 J
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l		3.3 U	3.7 U	3.4 U	3.5 U	22 J
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l		3.1 U	3.5 U	3.2 U	3.3 U	21 J
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l		4.1 U	4.7 U	4.3 U	4.4 U	19 J
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l		3.2 U	3.4 U	2.8 U	2.9 U	20 J
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l		3.4 U	3.8 U	3.5 U	3.6 U	21 J
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l		3.6 U	4.1 U	3.7 U	3.8 U	21 J
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l		2.7 U	3.1 U	2.8 U	2.9 U	23 J
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l		2.3 U	2.5 U	2.2 U	2.2 U	26 J
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l		3.6 U	4.1 U	3.7 U	3.8 U	21 J
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l		1.8 U	2 U	1.6 U	1.3 U	5 J
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l		1.6 U	1.8 U	1.1 U	1.3 U	2.5 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1				UJ	UJ	UJ	UJ	
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l						92 J
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8				UJ	UJ	UJ	UJ	
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l						62 J
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l		24 U	27 U	25 U	26 U	35 J
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l		70 U	80 U	74 U	74 U	100 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4				UJ	UJ	UJ	UJ	
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l						42 J
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9				UJ	UJ	UJ	UJ	
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l						23 J
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5				UJ	UJ	UJ	UJ	UJ

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UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	RI-MW-11	RI-MW-12	RI-MW-13	RI-MW-13	RI-MW-23
				Sample #	RI-MW-11-Y1	RI-MW-12-Y1	RI-MW-13A-Y1	RI-MW-13-Y1	RI-MW-23A-Y1
				Start Depth	6	5	10	10	9.5
				End Depth	16	15	20	20	19.5
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	N	FD	N	FD
				Parent Sample #			RI-MW-13-Y1		RI-MW-23-Y1
				Sample Date	11/28/2023	11/29/2023	11/29/2023	11/29/2023	11/15/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	11 J	9.4 U	9.4 U	9.8 U	11 U
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	25 U	24 U	24 U	25 U	28 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	3.9 U	3.1 U	3.2 U	2.7 U	4.9 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	2.9 U	2.8 U	2.8 U	2.9 U	3.3 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.4 U	3.2 U	3.2 U	3.4 U	3.8 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.2 U	3 U	3 U	3.2 U	3.6 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.3 U	4.1 U	4.1 U	4.3 U	4.8 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	2.8 U	2.7 U	2.7 U	2.8 U	3.4 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.5 U	3.3 U	3.3 U	3.5 U	3.9 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.7 U	3.5 U	3.5 U	3.7 U	4.2 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	2.8 U	2.7 U	2.7 U	2.8 U	3.1 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	2.2 U	2.1 U	2.1 U	2.2 U	2.5 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	6.9 J	3.5 U	3.5 U	3.7 U	4.2 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	3 U	2.3 J	1.9 U	2.1 U	2.5 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.1 U	1.2 U	1.4 U	1.5 U	2 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1				UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l	24 J				
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	25 U	24 U	24 U	25 U	28 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	72 U	70 U	70 U	140	82 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4				UJ	UJ	UJ	
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l	400 J				6.2 J
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

Notes:

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Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	RI-MW-23	RI-MW-25	RI-MW-29	RI-MW-30	RI-MW-31
				Sample #	RI-MW-23-Y1	RI-MW-25-Y1	RI-MW-29-Y1	RI-MW-30-Y1	RI-MW-31-Y1
				Start Depth	9.5	12	7	10	10
				End Depth	19.5	22	17	20	20
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	N	N	N	N
				Parent Sample #					
				Sample Date	11/15/2023	11/16/2023	11/27/2023	11/20/2023	11/28/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	9.5 U	10 U	9.5 U	10 U	4.7 U
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	24 U	26 U	24 U	26 U	6.3 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	4.9 U	5.3 U	2.6 U	2.8 U	6 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	2.8 U	3 U	2.8 U	3 U	5.1 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.3 U	3.5 U	3.3 U	3.5 U	4.6 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.1 U	3.3 U	3.1 U	3.3 U	4 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.1 U	4.5 U	4.1 U	4.5 U	4.4 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	3.3 U	2.9 U	2.7 U	2.9 U	3.6 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.4 U	3.6 U	3.4 U	3.6 U	4.9 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.6 U	3.9 U	3.6 U	3.9 U	4.2 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	2.7 U	2.9 U	2.7 U	2.9 U	2.8 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	2.5 U	2.3 U	2.1 U	2.3 U	5.4 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	3.6 U	3.9 U	3.6 U	3.9 U	5 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	2.3 U	2.1 U	1.3 U	1.4 U	1.7 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.9 U	1.8 U	1.1 U	1.1 U	2.1 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l					
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	24 U	26 U	24 U	26 U	16 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	70 U	76 U	96 UJ	76 U	100 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l					
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

Notes:

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Table D - Dioxin/Furan Detection Results

UNVALIDATED DATA - FOR DISCUSSION PURPOSES ONLY				Location	RI-MW-32	RI-MW-35	RI-MW-35	RI-MW-40	RI-MW-41
				Sample #	RI-MW-32-Y1	RI-MW-35A-Y1	RI-MW-35-Y1	RI-MW-40-Y1	RI-MW-41-Y1
				Start Depth	10	10	10	10	7.5
				End Depth	20	20	20	20	17.5
				Depth Unit	ft	ft	ft	ft	ft
				Sample Type	N	FD	N	N	N
				Parent Sample #		RI-MW-35-Y1			
				Sample Date	11/16/2023	11/20/2023	11/20/2023	11/27/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4		pg/l	10 U	11 U	10 U	9.5 U	47 J
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9		pg/l	26 U	27 U	25 U	24 U	26 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7		pg/l	4.1 U	3.1 U	2.7 U	2.6 U	4.1 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9		pg/l	3.1 U	3.1 U	2.9 U	2.8 U	3 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6		pg/l	3.6 U	3.7 U	3.4 U	3.3 U	3.5 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9		pg/l	3.4 U	3.4 U	3.2 U	3.1 U	3.3 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7		pg/l	4.5 U	4.6 U	4.3 U	4.1 U	4.4 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9		pg/l	2.9 U	3 U	2.8 U	2.7 U	2.9 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3		pg/l	3.7 U	3.8 U	3.5 U	3.4 U	3.6 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6		pg/l	3.9 U	4 U	3.7 U	3.6 U	3.8 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4		pg/l	2.9 U	3 U	2.8 U	2.7 U	2.9 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5		pg/l	2.3 U	2.4 U	2.2 U	2.1 U	2.5 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4		pg/l	3.9 U	4 U	3.7 U	3.6 U	3.8 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9		pg/l	2 U	13 J	7.5 J	1.3 U	83
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	0.12	pg/l	1.5 U	1.3 U	1.1 U	1.1 U	1.2 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1			UJ	UJ		UJ	
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1		pg/l			3 J		15 J
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8		pg/l					
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0		pg/l	26 U	27 U	25 U	24 U	26 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9		pg/l	77 U	78 U	74 U	70 U	79 J
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4			UJ		UJ	UJ	
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4		pg/l		24 J			100 J
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9			UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9		pg/l					
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5			UJ	UJ	UJ	UJ	UJ

Notes:

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Table E - PFAS Detection Results

				Location	N106	N112S	N115	N118
				Sample #	MW-N106	MW-N112S	RI-MW-N115-Y1	MW-N118
				Start Depth	7.5	9.02	6.72	11.2
				End Depth	17.5	19.02	16.72	21.2
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	12/1/2023	12/1/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	9.82 J	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	10.5 J	7.19 J	4.73 UJ	18 J
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.58 UJ	4.68 UJ	4.73 UJ	25.8 J
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	11.7 J	10.5 J	4.73 UJ	18.5 J
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	**7.98 J**	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**16.7 J**	**13.9 J**	**11 J**	**111 J**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**28.2 J**	**16.1 J**	**5.49 J**	**35.4 J**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.58 UJ	4.68 UJ	4.73 UJ	4.6 UJ

Notes:

1. A portion of the analytical data shown above has not been validated by a third-party validator. The data is presented for discussion purposes only. Unvalidated data is qualified with with an "A".

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U - Not Detected

Table E - PFAS Detection Results

				Location	N119	N121S	N125	N129
				Sample #	MW-N119	MW-N121S	MW-N125	MW-N129
				Start Depth	10.44	6.93	12.7	12.65
				End Depth	20.44	16.93	22.7	12.65
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/30/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	15 J	12.5 J	4.63 UJ	7.78 J
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	30.8 J	14.2 J	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	19.5 J	17.9 J	4.63 UJ	8.55 J
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**99.2 J**	**17.8 J**	4.63 UJ	**7.86 J**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**33.6 J**	**24.3 J**	4.63 UJ	**36.9 J**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.65 UJ	4.36 UJ	4.63 UJ	4.56 UJ

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Table E - PFAS Detection Results

				Location	N130	N136	N139	N140S
				Sample #	MW-N130	MW-N136	MW-N139-RS	MW-N140S-RS
				Start Depth	12.9	7.45	5.58	7.62
				End Depth	22.9	17.45	15.58	17.62
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/29/2023	11/29/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	4.6 UJ	8.09 J	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.72 J	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	4.6 UJ	20.6 J	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**6.53 J**	**8.3 J**	**13.1 JA**	6.08 UJA
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**6.83 J**	**5.75 J**	**4.87 JA**	**36 JA**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.6 UJ	4.59 UJ	4.61 UJA	6.08 UJA

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Table E - PFAS Detection Results

				Location	N142S	N142S	N144	RI-MW-02
				Sample #	MW-N142S	RI-MW-N142SA	MW-N144	RI-MW-02A-Y1
				Start Depth	5.45	5.45	7.9	5
				End Depth	15.45	15.45	17.9	10
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	FD	N	FD
				Parent Sample #		MW-N142S		RI-MW-02-Y1
				Sample Date	12/1/2023	12/1/2023	11/30/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.56 UJ	4.84 UJ	82.1 J	4.55 UJ
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	100 J	101 J	54.4 J	7.66 J
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	14 J	14.1 J	**1900 J**	5.61 J
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	275 J	323 J	94 J	5.95 J
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.58 J	4.84 UJ	**5.92 J**	4.55 UJ
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**6.03 J**	**5.99 J**	**6670 J**	**28.9 J**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**59.9 J**	**61.4 J**	**230 J**	**13.5 J**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.56 UJ	4.84 UJ	4.56 UJ	4.55 UJ

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Table E - PFAS Detection Results

				Location	RI-MW-02	RI-MW-07	RI-MW-08	RI-MW-10
				Sample #	RI-MW-02-Y1	RI-MW-07-Y1	RI-MW-08-Y1	RI-MW-10-Y1-RS
				Start Depth	5	11	10	5
				End Depth	10	21	20	15
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/16/2023	11/14/2023	11/15/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	4.54 UJ	11 J	15.8 J	11.9 JA
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.54 UJ	4.88 UJ	4.41 UJ	35.3 JA
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	8.13 J	12.5 J	22 J	20.3 JA
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	4.54 UJ	**5.82 J**	**8.53 J**	**67.3 JA**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	4.54 UJ	**19.6 J**	**24.8 J**	**25.1 JA**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.54 UJ	4.88 UJ	4.41 UJ	4.81 UJA

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Table E - PFAS Detection Results

				Location	RI-MW-11	RI-MW-12	RI-MW-13	RI-MW-13
				Sample #	RI-MW-11-Y1	RI-MW-12-Y1-RS	RI-MW-13A-Y1	RI-MW-13-Y1
				Start Depth	6	5	10	10
				End Depth	16	15	20	20
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	FD	N
				Parent Sample #			RI-MW-13-Y1	
				Sample Date	11/28/2023	11/30/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	6.3 JA	4.59 UJA	18.8 J	29.2 J
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	14.1 JA	7.36 JA	32.5 J	31.6 J
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.91 JA	**52.3 JA**	**926 J**	**913 J**
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	14 JA	4.59 UJA	51.9 J	63.6 J
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.57 UJA	4.59 UJA	5.35 J	5.32 J
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	4.57 UJA	**74.5 JA**	**3640 J**	**1250 J**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**129 JA**	**22 JA**	**86.5 J**	**81.6 J**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.57 UJA	4.59 UJA	4.59 UJ	4.54 UJ

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Table E - PFAS Detection Results

				Location	RI-MW-23	RI-MW-23	RI-MW-25	RI-MW-29
				Sample #	RI-MW-23A-Y1	RI-MW-23-Y1	RI-MW-25-Y1	RI-MW-29-Y1
				Start Depth	9.5	9.5	12	7
				End Depth	19.5	19.5	22	17
				Depth Unit	ft	ft	ft	ft
				Sample Type	FD	N	N	N
				Parent Sample #	RI-MW-23-Y1			
				Sample Date	11/15/2023	11/15/2023	11/16/2023	11/27/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	15 J	16.7 J	7.66 J	6.28 JA
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.46 UJ	4.68 UJ	5.57 J	12.4 JA
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	4.46 UJ	4.68 UJ	4.56 UJ	10.1 JA
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**31.9 J**	**35.5 J**	**29.3 J**	**7.93 JA**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**13.1 J**	**14.4 J**	**13.6 J**	**11.9 JA**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.46 UJ	4.68 UJ	4.56 UJ	4.6 UJA

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Table E - PFAS Detection Results

				Location	RI-MW-30	RI-MW-32	RI-MW-35	RI-MW-35
				Sample #	RI-MW-30-Y1	RI-MW-32-Y1	RI-MW-35A-Y1	RI-MW-35-Y1
				Start Depth	10	10	10	10
				End Depth	20	20	20	20
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	FD	N
				Parent Sample #			RI-MW-35-Y1	
				Sample Date	11/20/2023	11/16/2023	11/20/2023	11/20/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	4.52 UJ	9.67 J	6.44 J	6.54 J
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	4.52 UJ	6.98 J	10.2 J	10 J
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	4.52 UJ	9.53 J	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	4.52 UJ	**15.9 J**	**18.9 J**	**18.6 J**
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	4.52 UJ	**25.9 J**	**20.4 J**	**20.2 J**
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.52 UJ	4.58 UJ	4.75 UJ	4.7 UJ

Notes:

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Table E - PFAS Detection Results

				Location	RI-MW-39	RI-MW-40	RI-MW-41	RI-MW-42
				Sample #	RI-MW-39-Y1-RS	RI-MW-40-Y1-RS	RI-MW-41-Y1	RI-MW-42-Y1-RS
				Start Depth	8	10	7.5	15
				End Depth	18	20	17.5	20
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/29/2023	11/14/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
012-Mclouth_PFOS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Hexafluoropropylene oxide dimer acid	13252-13-6	6	ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluorobutanesulfonic acid	375-73-5	420	ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluorodecanoic acid	335-76-2		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluorododecanoic acid	307-55-1		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluoroheptanoic acid	375-85-9		ng/l	61.7 J	5.76 JA	7.07 J	4.61 UJ
012-Mclouth_PFOS	Perfluorohexanesulfonic acid	355-46-4	**39**	ng/l	18.3 J	4.33 UJA	7.01 J	4.61 UJ
012-Mclouth_PFOS	Perfluorohexanoic acid	307-24-4	400000	ng/l	111 J	6.05 JA	5.26 J	4.61 UJ
012-Mclouth_PFOS	Perfluorononanoic acid	375-95-1	**5.9**	ng/l	**8.46 J**	4.33 UJA	4.53 J	4.61 UJ
012-Mclouth_PFOS	Perfluorooctanesulfonic acid	1763-23-1	**0.02**	ng/l	**19.5 J**	**14.4 JA**	**74.1 J**	4.61 UJ
012-Mclouth_PFOS	Perfluorooctanoic acid	335-67-1	**0.004**	ng/l	**51.1 J**	**15.1 JA**	**22.6 J**	4.61 UJ
012-Mclouth_PFOS	Perfluorotetradecanoic acid	376-06-7		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluorotridecanoic acid	72629-94-8		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ
012-Mclouth_PFOS	Perfluoroundecanoic acid	2058-94-8		ng/l	4.76 UJ	4.33 UJA	4.51 UJ	4.61 UJ

Notes:

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Table F - Inorganic Detection Results

				Location	N106	N106	N112S	N112S
				Sample #	MW-N106	MW-N106-F	MW-N112S	MW-N112S-F
				Start Depth	7.5	7.5	9.02	9.02
				End Depth	17.5	17.5	19.02	19.02
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/30/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	20 U	20 U	20 U
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.4**	**1.4**	**1.6**	**1.4**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	90	92	**470**	**470**
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	44000 J+	44000 J+	30000	31000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.33 J	2 U	2 U	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	0.038 J	0.3 J	0.28 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.28 J	0.19 J	0.37 J	2 U
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l	10 U		**130**	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	**1700**	**1600**	220	150 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	24000 J+	24000 J+	22000 J+	22000 J+
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**220 J+**	**220 J+**	**150**	**150**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1	0.95 J	0.74 J	0.65 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	8200	8500	36000 J+	35000 J+
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	22000	23000	44000 J+	42000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.26 J	0.23 J	0.58 J	0.52 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.78 J	0.72 J	0.83 J	5 U

Notes:

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Table F - Inorganic Detection Results

				Location	N115	N115	N118	N118
				Sample #	MW-N115-F	RI-MW-N115-Y1	MW-N118	MW-N118-F
				Start Depth	6.72	6.72	11.2	11.2
				End Depth	16.72	16.72	21.2	21.2
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	12/1/2023	12/1/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	20 U	21	17 J
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**3.1**	**3.1**	**24**	**19**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	55	53	65	65
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	93000	92000	170000 J+	160000 J+
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	0.52 J	0.58 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**3**	**3.1**	0.04 J	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.48 J	2 U	0.15 J	0.17 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**20**	**10**	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	**4200**	**4200**	36 J	110 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	**21 J+**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	45000 J+	44000 J+	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**770**	**760**	1 J+	1 U
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1.3	1.3	0.87 J	16
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	9900 J+	9700 J+	56000	57000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	18000 J+	18000 J+	54000	54000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.44 J	0.55 J	0.64 J	0.61 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	2.5 J	1.2 J	5 U	5 U

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Table F - Inorganic Detection Results

				Location	N119	N119	N121S	N121S
				Sample #	MW-119-F	MW-N119	MW-N121S	MW-N121S-F
				Start Depth	10.44	10.44	6.93	6.93
				End Depth	20.44	20.44	16.93	16.93
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/30/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	20 U	73	61
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.3**	**1.3**	**1.7**	**1.7**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	57	56	72	73
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	300000 J+	310000 J-	270000 J-	260000 J-
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	19	18
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	0.052 J	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.3 J	0.25 J	2.2	2.2
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 U	**15**	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	58 J	59 J	32 J	200 U
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	0.89 J	0.8 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	500 U	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	1 U	1.9 J+	1 U
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.95 J	1	3.9	3.9
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	55000	55000	53000	53000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5.1 J	4.2 J	5.4 J	3.8 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	65000	65000	72000	72000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	3.5 J	3.5 J	**5.1**	**5.1**
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	5 U

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Table F - Inorganic Detection Results

				Location	N125	N125	N129	N129
				Sample #	MW-125-F	MW-N125	MW-N129	MW-N129-F
				Start Depth	12.7	12.7	12.65	12.65
				End Depth	22.7	22.7	12.65	12.65
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/30/2023	11/30/2023	11/30/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	32	88	70
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	0.34 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**2.1**	**2.1**	**0.68 J**	**0.65 J**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	160	180	41	41
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	38000 J+	38000 J+	130000 J+	130000 J+
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.4 J	1.5 J	0.26 J	0.32 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.14 J	0.21 J	0.066 J	0.046 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.16 J	0.63 J	0.27 J	0.23 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 U	**6.1 J**	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	420	570	110 J	200 U
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	**14 J+**	**13 J+**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	34000 J+	36000 J+	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**76 J+**	**79 J+**	3 J+	1 U
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.57 J	1.2	0.42 J	0.38 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	32000	32000	34000	35000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5.4 J	8.3 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	37000	37000	65000	65000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.31 J	0.35 J	1.4 J	1.9 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.68 J	1 J	1.1 J	5 U

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J+ - The result is an estimated quantity, but the results may be biased high

J- - The result is an estimated quantity, but The results may be biased low

U - Not Detected

Table F - Inorganic Detection Results

				Location	N130	N130	N136	N136
				Sample #	MW-N130	MW-N130-F	MW-N136	MW-N136-F
				Start Depth	12.9	12.9	7.45	7.45
				End Depth	22.9	22.9	17.45	17.45
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/29/2023	11/29/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	290	250	25	20 U
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**5.8 J**	**5.7 J**	**2.7**	**2.6**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**10**	**11**	**0.91 J**	**0.84 J**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	37	35	34	33
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	110000	110000	120000 J+	120000 J+
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	3.5	5.6	1.1 J	0.56 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.33 J	0.31 J	0.19 J	0.18 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2.7	3.4	4.9	2.5
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l	**11 J+**		**11**	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	180 J	97 J	29 J	200 U
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1.6	1 U	**14 J+**	**14 J+**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	500 U	6900 J+	6700 J+
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	8.2	1.3	**67 J+**	**64 J+**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	6.7	5.9	4.1	4
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	100000	100000	18000	17000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 UJ	5 UJ	2.2 J	2.6 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	100000 J+	100000 J+	31000	30000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	**5.6**	**5.4**	1.3 J	1.3 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	2.3 J	1.1 J	6.7	5.5

Notes:

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2. The Groundwater PAL values were sourced from Worksheet #15 of the approved Final Quality Assurance Plan for the McLouth Steel Corp. Superfund Site (July 2023)

Acronyms:

CAS # - Chemical Abstract Service Number

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U - Not Detected

Table F - Inorganic Detection Results

				Location	N139	N139	N140S	N140S
				Sample #	MW-N139	MW-N139-F	MW-N140S	MW-N140S-F
				Start Depth	5.58	5.58	7.62	7.62
				End Depth	15.58	15.58	17.62	17.62
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/28/2023	11/28/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	91	85	82	20 U
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.9**	**1.8**	**13**	**1.6**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	61	59	**1200**	**1200**
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	**0.41 J**	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	110000	100000	110000	110000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.31 J	0.3 J	2.2 J	0.46 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	**1.5**	0.48 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.25 J	2 U	28	0.61 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l	10 UJ		10 UJ	
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	200 U	**18000**	**14000**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	0.24 J	1 U	3.1	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	18 J	11 J	32000 J+	33000 J+
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	1 U	**1300**	**1300**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.5 J	0.44 J	32	2.1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	56000	54000	31000	31000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	4.7 J	4.5 J	5 UJ	5 UJ
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	36000	36000	110000 J+	110000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**4.2 J**	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	**12**	**12**	1.9 J	0.17 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	16	0.81 J

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

				Location	N142S	N142S	N142S	N142S
				Sample #	MW-N142S	MW-N142SA-F	MW-N142S-F	RI-MW-N142SA
				Start Depth	5.45	5.45	5.45	5.45
				End Depth	15.45	15.45	15.45	15.45
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	FD	N	FD
				Parent Sample #		MW-N142S-F		MW-N142S
				Sample Date	12/1/2023	12/1/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	170 J+	170 J+	200 J+	210 J+
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**11**	**11**	**11**	**11**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**11**	**11**	**12**	**12**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	37	39	38	39
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	100000	100000	100000	110000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	2 U	3.1 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.19 J	0.2 J	0.17 J	0.2 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.77 J	0.18 J	2 U	0.63 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l	**230**			**210**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	120 J	110 J	110 J	130 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	0.19 J	1 U	1 U	0.19 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	700 J+	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	9.6	16 J+	8.7 J	9
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1.6	1.6	1.4	1.8
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	25000 J+	24000 J+	25000 J+	25000 J+
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	200000 J+	200000 J+	190000 J+	210000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**17 J**	**17 J**	**17 J**	**19 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	1.6 J	1.6 J	1.5 J	1.6 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	5 U

Notes:

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Table F - Inorganic Detection Results

				Location	N144	N144	RI-MW-01	RI-MW-01
				Sample #	MW-N144	MW-N144-F	RI-MW-01-F-Y1	RI-MW-01-Y1
				Start Depth	7.9	7.9	5	5
				End Depth	17.9	17.9	10	10
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/30/2023	11/30/2023	11/13/2023	11/13/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	16 J	14 J	42	42
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	0.27 J	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**0.97 J**	**0.95 J**	**3.1**	**3.1**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	42	40	32	33
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	13000 J+	12000 J+	80000	76000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.46 J	0.28 J	0.32 J	0.27 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.064 J	0.048 J	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.3 J	2 U	17 J	0.58 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l	**9.3 J**			**5.3 J**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	200 U	250	300
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	500 U	12000	12000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	1 U	**480**	**470**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	**0.1 J**	0.046 J
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.72 J	0.64 J	0.41 J	0.55 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	36000	36000	6700	6800
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	73000	73000	27000	27000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	1.8 J	1.6 J	0.39 J	0.39 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	0.82 J	1.8 J	3.4 J

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Table F - Inorganic Detection Results

				Location	RI-MW-02	RI-MW-02	RI-MW-02	RI-MW-02
				Sample #	RI-MW-02A-F-Y1	RI-MW-02A-Y1	RI-MW-02-F-Y1	RI-MW-02-Y1
				Start Depth	5	5	5	5
				End Depth	10	10	10	10
				Depth Unit	ft	ft	ft	ft
				Sample Type	FD	FD	N	N
				Parent Sample #	RI-MW-02-F-Y1	RI-MW-02-Y1		
				Sample Date	11/16/2023	11/16/2023	11/16/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	15 J	60	20 U	19 J
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.37 J	0.64 J	0.4 J	0.48 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**4.4**	**4.5**	**4.5**	**4.5**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	**940**	**890**	**980**	**980**
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	24000	24000	24000	24000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.72 J	0.85 J	0.51 J	0.54 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.44 J	0.54 J	0.49 J	0.49 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	4.4	2.2	0.23 J	0.65 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**16**		**19**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	710 J+	1000 J+	730 J+	910 J+
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	**5.4 J**	**4.4**	**4.9 J**	1.6
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	24000	23000	25000	25000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**150 J+**	**150 J+**	**140 J+**	**150 J+**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.89 J	1.1	0.78 J	0.82 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	27000	29000	30000	28000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	61000 J+	63000	62000 J+	61000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.61 J	0.7 J	0.59 J	0.66 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.73 J	3.1 J	1.5 J	1.1 J

Notes:

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Table F - Inorganic Detection Results

				Location	RI-MW-03	RI-MW-03	RI-MW-05	RI-MW-05
				Sample #	RI-MW-03-F-Y1	RI-MW-03-Y1	RI-MW-05-F-Y1	RI-MW-05-Y1
				Start Depth	5	5	5	5
				End Depth	15	15	15	15
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/15/2023	11/15/2023	11/15/2023	11/15/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	31	210	250
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.35 J	0.36 J	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**0.85 J**	**0.91 J**	**0.85 J**	**0.88 J**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	170	180	99	94
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	120000	120000	650000	670000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	7.9 J	0.34 J	45	41
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**16 J**	**16 J**	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.57 J	1.1 J	1.8 J	1.6 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 U		**11**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	**1600**	**1700**	200 U	200 U
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	**7.2 J**	**8 J**	0.44 J	0.41 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	20000	20000	16 J	18 J
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**2900**	**2900**	1 U	0.94 J
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	**40**	37	1.5	1.7
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	3100	3100	13000	13000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	2.5 J	4 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	5100	5300	31000	36000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	5 U	0.11 J	2.7 J	3 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	5 U

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

				Location	RI-MW-07	RI-MW-07	RI-MW-08	RI-MW-08
				Sample #	RI-MW-07-F-Y1	RI-MW-07-Y1	RI-MW-08-F-Y1	RI-MW-08-Y1
				Start Depth	11	11	10	10
				End Depth	21	21	20	20
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/14/2023	11/14/2023	11/15/2023	11/15/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	220	200	180	210
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.6 J	0.76 J	**1.8 J**	**1.9 J**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**5.6**	**6.3**	**2.4**	**2.5**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	51	49	72	68
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	160000	160000	210000	200000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2.2	2 U	0.4 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	4.9	0.56 J	0.2 J	2 U
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**4.7 J**		10 U
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	50 J	200 U	28 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	0.69 J	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	690	610	1100	1400
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1	2.1	1 U	2.8
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.058 J	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	2.9	3	1.2	1.3
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	40000	39000	22000	21000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5.2 J	4.6 J	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	170000	170000	180000 J+	160000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.83 J	1 J	1.3 J	1.6 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	1.2 J	5 U	5 U

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

					Location	RI-MW-10	RI-MW-10	RI-MW-11	RI-MW-11
					Sample #	RI-MW-10-F-Y1	RI-MW-10-Y1	RI-MW-11-F-Y1	RI-MW-11-Y1
					Start Depth	5	5	6	6
					End Depth	15	15	16	16
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	N	N
					Parent Sample #				
					Sample Date	11/28/2023	11/28/2023	11/28/2023	11/28/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20	27	43	46
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.28 J	0.27 J	**4**	**4.2**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**5.3**	**5.1**	**6.3**	**6.6**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	**380**	**390**	23	24
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	88000	89000	27000	28000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	1.9 J	2 J	0.44 J	0.42 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**1.3**	**1.3**	0.059 J	0.06 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.64 J	1.5 J	0.28 J	0.26 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 UJ		10 UJ
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	**13000**	**13000**	28 J	32 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	64000	65000	3700	3900
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**870**	**830**	24	25
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	5.3	4.3	1.5	1.6
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	230000	240000	15000	16000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 UJ	5 UJ	5 UJ	5 UJ
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	230000	230000	110000	110000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**3.6 J**	1 U	**4.3 J**	**3.5 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	3.9 J	4 J	3 J	3.1 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	1 J	1 J	5 U	5 U

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

					Location	RI-MW-12	RI-MW-12	RI-MW-13	RI-MW-13
					Sample #	RI-MW-12-F-Y1	RI-MW-12-Y1	RI-MW-13A-F-Y1	RI-MW-13A-Y1
					Start Depth	5	5	10	10
					End Depth	15	15	20	20
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	FD	FD
					Parent Sample #			RI-MW-13-F-Y1	RI-MW-13-Y1
					Sample Date	11/29/2023	11/29/2023	11/29/2023	11/29/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	**900**	**920**	**770**	**800**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**4.3**	**4.3**	**4.9**	**5.2**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	70	67	49	51
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	150000	150000	30000	31000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	1.9 J	0.35 J	0.31 J	0.44 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.069 J	0.077 J	0.36 J	0.37 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	2 U	2 U	0.29 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 UJ		**85 J+**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	40 J	260	290
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	1.1
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	500 U	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	0.55 J	1 U	0.92 J
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	8.7	9.2	2.5	3.1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	70000	70000	41000	41000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	2.6 J	2.2 J	5 UJ	5 UJ
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	230000 J+	230000 J+	79000 J+	81000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	2.7 J	2.8 J	0.95 J	1 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	0.65 J	5 U	1.1 J

Notes:

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Table F - Inorganic Detection Results

					Location	RI-MW-13	RI-MW-13	RI-MW-15	RI-MW-15
					Sample #	RI-MW-13-F-Y1	RI-MW-13-Y1	RI-MW-15-F-Y1	RI-MW-15-Y1
					Start Depth	10	10	11	11
					End Depth	20	20	21	21
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	N	N
					Parent Sample #				
					Sample Date	11/29/2023	11/29/2023	11/16/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	**770**	**780**	17 J	38
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	0.56 J	0.64 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**4.9**	**5.2**	**1.7**	**1.9**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	49	50	300	320
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	29000	30000	40000	42000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.33 J	0.39 J	5.6	6.8
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.37 J	0.38 J	0.09 J	0.12 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	0.3 J	0.2 J	0.46 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l				**81**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	260	300	200 U	220 J+
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1.1	**14**	0.76 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	500 U	230 J	260 J
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	1.1	1.8 J+	3.7 J+
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 UJ	0.2 UJ
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	2.6	3	0.49 J	1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	42000	40000	110000	120000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 UJ	5 UJ	5 U	2.7 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	81000 J+	77000 J+	64000	64000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.99 J	0.92 J	2.4 J	2.9 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	1 J	5 U	1.8 J

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Table F - Inorganic Detection Results

				Location	RI-MW-16	RI-MW-16	RI-MW-17	RI-MW-17
				Sample #	RI-MW-16-F-Y1	RI-MW-16-Y1	RI-MW-17-F-Y1	RI-MW-17-Y1
				Start Depth	10	10	10	10
				End Depth	20	20	20	10
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/15/2023	11/15/2023	11/14/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	160	**1400**	54	**850**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**8.2**	**14**	2 U	0.36 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**13**	**15**	**2.2**	**2.9**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	65	78	120	120
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	0.11 J	**2.3**	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	22000	18000	12000	15000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2.8	7.8	0.29 J	3.2
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**1.6 J+**	**2.4 J+**	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2	34	0.19 J	3.7
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**1000**		**120**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	480	**2900**	86 J	1200
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	**12**	**120**	1 U	**4.6**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	2600	1800	2700	3200
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	20	**58 J+**	16	41
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	**0.29**	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	9.9	18	0.93 J	3.2
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	36000	34000	32000	32000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	4.7 J	4.6 J	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	0.065 J	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	150000	150000 J+	48000	48000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	**5.6**	**11**	0.3 J	2.7 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	13 J+	200	5 U	33

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Table F - Inorganic Detection Results

				Location	RI-MW-18	RI-MW-18	RI-MW-19	RI-MW-19
				Sample #	RI-MW-18-F-Y1	RI-MW-18-Y1	RI-MW-19-F-Y1	RI-MW-19-Y1
				Start Depth	8	8	17	17
				End Depth	18	18	27	27
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/16/2023	11/16/2023	11/20/2023	11/20/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	95	120	15 J	28
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.36 J	0.41 J	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**5.3**	**5.1**	**1.2**	**1.1**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	51	53	93	91
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	270000	260000	25000	24000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	0.46 J	2 U	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	0.078 J	0.085 J	0.097 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	0.24 J	2 U	0.55 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 U		10 U
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	200 U	200	290
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	19 J	56 J	5000	5000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	0.52 J	3.5 J+	**96**	**95**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 UJ	**0.078 J**	**0.082 J**
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1.5	1.8	1 U	0.42 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	37000	37000	21000 J+	20000 J+
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	73000	71000 J+	29000 J+	29000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	**4.7 J**	**5.7 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	1.4 J	1.5 J	0.21 J	0.25 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	2 J

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

				Location	RI-MW-20	RI-MW-20	RI-MW-21	RI-MW-21
				Sample #	RI-MW-20-F-Y1	RI-MW-20-Y1	RI-MW-21-F-Y1	RI-MW-21-Y1
				Start Depth	12	12	11	11
				End Depth	22	22	21	21
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/17/2023	11/17/2023	11/14/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	**10000**	**10000**	**750**	**770**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.42 J	0.5 J	0.59 J	0.52 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.5**	**1.5**	**2.2**	**2.3**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	**400**	**400**	210	200
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	170000	170000	210000	320000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	2 U	0.4 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	0.045 J	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	0.25 J	2 U	0.17 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 UJ		**23**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	25 J	31 J	42 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	0.42 J	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	11 J	8.5 J	13 J
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	0.7 J	1.5	0.66 J	1.3
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	**0.12 J**	**0.1 J**	0.04 J	0.044 J
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	6.9	6.9	2	2.1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	48000	47000	25000	25000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 UJ	5 UJ	5.7 J	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	55000	56000	59000	35000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.75 J	0.73 J	**8**	**8.2**
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	5 U

Notes:

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Table F - Inorganic Detection Results

					Location	RI-MW-22	RI-MW-22	RI-MW-23	RI-MW-23
					Sample #	RI-MW-22-F-Y1	RI-MW-22-Y1	RI-MW-23A-F-Y1	RI-MW-23A-Y1
					Start Depth	13	13	9.5	9.5
					End Depth	23	23	19.5	19.5
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	FD	FD
					Parent Sample #			RI-MW-23-F-Y1	RI-MW-23-Y1
					Sample Date	11/14/2023	11/14/2023	11/15/2023	11/15/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	**970**	**1000**	34	38
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	**1.6 J**	**1.7 J**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.3**	**1.4**	**3.4**	**3.7**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	180	180	160	160
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	320000	310000	20000	19000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.8 J	0.96 J	0.53 J	0.73 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2.5	2.3	0.61 J	2.2
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**6.1 J**		**160**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	200 U	250	340
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	0.19 J	0.29 J	3.6 J	**4.9**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	13 J	14 J	2700	2600
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1.4	2.1	**45**	**44**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	2.3	2.3	1.8	1.9
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	34000	35000	28000	28000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	4.9 J	5.2 J	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	0.08 J
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	34000 J+	34000	18000	18000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	2.7 J	2.6 J	1.4 J	1.3 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.95 J	0.87 J	5 U	5 U

Notes:

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Table F - Inorganic Detection Results

					Location	RI-MW-23	RI-MW-23	RI-MW-24	RI-MW-24
					Sample #	RI-MW-23-F-Y1	RI-MW-23-Y1	RI-MW-24-F-Y1	RI-MW-24-Y1
					Start Depth	9.5	9.5	26.5	26.5
					End Depth	19.5	19.5	36.5	36.5
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	N	N
					Parent Sample #				
					Sample Date	11/15/2023	11/15/2023	11/16/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	34	50	20 U	43
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**1.7 J**	**1.8 J**	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**3.7**	**3.6**	**4.2**	**3.8**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	170	170	**1500**	**1500**
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	20000	20000	110000	110000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.54 J	0.74 J	0.38 J	0.51 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	**2.5 J+**	**2.7 J+**
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.62 J	2.1	0.76 J	0.43 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**160**		**8.2 J**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	230	330	**14000**	**13000**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	3.7 J	**4.6**	**4 J**	**5.7 J**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	2700	2600	35000	37000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**43**	**43**	**800**	**810**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1.8	2	0.94 J	1.3
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	29000	30000	49000	50000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	0.077 J	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	18000	17000	140000 J+	140000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	1.2 J	1.2 J	0.45 J	0.55 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	0.92 J	2.3 J

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Table F - Inorganic Detection Results

					Location	RI-MW-25	RI-MW-25	RI-MW-26	RI-MW-26
					Sample #	RI-MW-25-F-Y1	RI-MW-25-Y1	RI-MW-26-F-Y1	RI-MW-26-Y1
					Start Depth	12	12	12	12
					End Depth	22	22	22	22
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	N	N
					Parent Sample #				
					Sample Date	11/16/2023	11/16/2023	11/16/2023	11/16/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	31	37	45	**450**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	0.77 J	**0.97 J**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**4.5**	**4.9**	**1.3**	**1.7**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	210	200	35	47
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	**0.18 J**
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	19000	16000	160000	160000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.32 J	0.29 J	2 U	4.1
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	1 U	1 U	0.051 J	1 U
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.18 J	2 U	0.19 J	13
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**210**		**270**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	420	260	120 J+	**1600**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	3.3 J	1 U	**5 J**	**11**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	4200	3400	960	1400
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**65**	35	2.5 J+	**46**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.2 UJ	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.93 J	1.1	1 U	5.1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	33000	34000	33000	34000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	65000 J+	57000	14000 J+	14000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.83 J	0.83 J	0.44 J	1 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.82 J	5 U	5 U	16

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Table F - Inorganic Detection Results

				Location	RI-MW-27	RI-MW-27	RI-MW-29	RI-MW-29
				Sample #	RI-MW-27-F-Y1	RI-MW-27-Y1	RI-MW-29-F-Y1	RI-MW-29-Y1
				Start Depth	16	16	7	7
				End Depth	26	26	17	17
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/17/2023	11/17/2023	11/27/2023	11/27/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	130	190	20 U	29
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**1.3 J**	**1.4 J**	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.4**	**1.6**	**7.9**	**9.3**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	44	47	88	86
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	230000	230000	370000	370000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	0.46 J	2 U	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.23 J	0.26 J	0.078 J	0.1 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	2 U	0.79 J	0.89 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**66 J**		**6.8 J-**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	50 J	120 J	200 U	250
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1 U	1 U	0.35 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	17 J	83 J	210 J	5700
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	0.57 J	4.1	1 U	31
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	**0.099 J**	**0.12 J**	0.2 U	0.058 J
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	2	2.3	2.7	3
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	74000	78000	38000	39000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 UJ	5 UJ	2.1 J	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	81000 J+	84000 J+	50000	50000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.73 J	0.94 J	0.36 J	0.71 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	5 U	5 U	5 U

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U - Not Detected

Table F - Inorganic Detection Results

				Location	RI-MW-30	RI-MW-30	RI-MW-31	RI-MW-31
				Sample #	RI-MW-30-F-Y1	RI-MW-30-Y1	RI-MW-31-F-Y1	RI-MW-31-Y1
				Start Depth	10	10	10	10
				End Depth	20	20	20	20
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/20/2023	11/20/2023	11/28/2023	11/28/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	280	**430**	28	**960**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**3.2 J**	**0.94 J**	**1.2 J**	**1.1 J**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**7.6**	**7.9**	**7.1**	**7.4**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	50	45	150	150
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	130000	110000	61000	60000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	1.5 J	0.28 J	2.2
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.31 J	0.42 J	**2.2**	**2.6**
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	6.4	1.3 J	2 U	2.1
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 U		**14 J+**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	360	67 J	**1400**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	0.48 J	1 U	0.79 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	110 J	520	10000	11000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	0.58 J	12	17	36
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	**0.1 J**	**0.096 J**	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	15	17	2.1	3.6
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	33000 J+	31000 J+	43000	42000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 UJ	5 UJ
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	150000 J+	170000 J+	270000	280000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**3.9 J**	**4.5 J**	**4.6 J**	**4.3 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	**32**	**21**	**15**	**16**
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	3.1 J	2.2 J	0.79 J	4 J

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

					Location	RI-MW-32	RI-MW-32	RI-MW-35	RI-MW-35
					Sample #	RI-MW-32-F-Y1	RI-MW-32-Y1	RI-MW-35A-F-Y1	RI-MW-35A-Y1
					Start Depth	10	10	10	10
					End Depth	20	20	20	20
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	FD	FD
					Parent Sample #			RI-MW-35-Y1	RI-MW-35-Y1
					Sample Date	11/16/2023	11/16/2023	11/20/2023	11/20/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	25	40	**1100**	**1200**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	2 U	**1.6 J**	**1.6 J**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**3.2**	**3.2**	**7.4**	**7.6**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	120	120	95	95
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	12000	12000	15000	15000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	0.43 J	0.58 J	2 U	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**0.75 J**	**0.75 J**	**1.5**	**1.5**
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.45 J	0.27 J	0.17 J	0.5 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**28**		**450 J+**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	200 U	200 U	150 J	190 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	0.21 J	0.39 J	0.89 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	9900	10000	9.5 J	17 J
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**66 J+**	**69 J+**	0.53 J	1.2
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 UJ	0.2 UJ	**0.069 J**	**0.095 J**
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	0.95 J	1	11	11
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	52000	53000	70000 J+	72000 J+
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	71000	70000	160000 J+	170000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U	**17 J**	**17 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.31 J	0.31 J	3.9 J	3.9 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	5 U	0.89 J	1.6 J	2.2 J

Notes:

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U - Not Detected

Table F - Inorganic Detection Results

					Location	RI-MW-35	RI-MW-35	RI-MW-39	RI-MW-39
					Sample #	RI-MW-35-F	RI-MW-35-Y1	RI-MW-39-F-Y1	RI-MW-39-Y1
					Start Depth	10	10	8	8
					End Depth	20	20	18	18
					Depth Unit	ft	ft	ft	ft
					Sample Type	N	N	N	N
					Parent Sample #				
					Sample Date	11/20/2023	11/20/2023	11/21/2023	11/21/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	**1100**	**1200**	33	140
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	**1.5 J**	**1.6 J**	0.35 J	0.43 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**7.1**	**7.4**	**0.61 J**	**2**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	91	95	40	43
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	14000	15000	230000	230000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	1.4 J	2 U	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**1.4**	**1.5**	1 U	0.05 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.18 J	0.31 J	0.39 J	0.63 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		**370 J+**		**8 J-**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	140 J	170 J	56 J	**7700**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	0.3 J	0.87 J	1 U	0.21 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	500 U	15 J	7200 J+	6900 J+
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	1 U	1.3	**130**	**390**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	**0.098 J**	**0.096 J**	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	10	11	0.79 J	0.69 J
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	69000 J+	71000 J+	32000	31000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	160000 J+	160000 J+	230000 J+	230000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**17 J**	**18 J**	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	3.7 J	3.9 J	0.35 J	1.6 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	1.2 J	2.2 J	0.71 J	3.8 J

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Table F - Inorganic Detection Results

				Location	RI-MW-40	RI-MW-40	RI-MW-41	RI-MW-41
				Sample #	RI-MW-40-F-Y1	RI-MW-40-Y1	RI-MW-41-F-Y1	RI-MW-41-Y1
				Start Depth	10	10	7.5	7.5
				End Depth	20	20	17.5	17.5
				Depth Unit	ft	ft	ft	ft
				Sample Type	N	N	N	N
				Parent Sample #				
				Sample Date	11/27/2023	11/27/2023	11/14/2023	11/14/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units				
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	58	97	**3100**	**8900**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.65 J	0.72 J	**1.5 J**	**2.6**
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.9**	**1.9**	**4.9**	**7.1**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	75	79	50	170
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	0.38 J
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U	**0.21 J**	**1**
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	37000	37000	11000	27000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	14	76
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	0.066 J	0.043 J	1 U	**3.8 J+**
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	1.8 J	14	75
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 R		**13**
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	85 J-	560	**2200**	**12000**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	1.6	**11**	**57**
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	18000	18000	1200	6000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**67**	**73**	**81**	**490**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U	0.038 J	**0.16 J**
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	1 U	1 U	10	**48**
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	22000	21000	22000	23000
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	0.046 J	0.23 J
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	190000	200000	140000	140000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	**5.1 J**	**5.5 J**	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.44 J	0.52 J	**5.5**	**14**
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	1.6 J	0.65 J	23	200

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Table F - Inorganic Detection Results

				Location	RI-MW-42	RI-MW-42
				Sample #	RI-MW-42-F-Y1	RI-MW-42-Y1
				Start Depth	15	15
				End Depth	20	20
				Depth Unit	ft	ft
				Sample Type	N	N
				Parent Sample #		
				Sample Date	11/27/2023	11/27/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units		
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	**330**
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	2 U	0.31 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**11**	**8.3**
014-Mclouth_Inorg	Barium	7440-39-3	**380**	ug/l	130	120
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	**0.18**	ug/l	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	140000	110000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	24
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**0.7 J**	**1**
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	2 U	1.7 J
014-Mclouth_Inorg	Cyanide	57-12-5	**0.15**	ug/l		10 R
014-Mclouth_Inorg	Iron	7439-89-6	**1400**	ug/l	**2300**	**2300**
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	1 U	0.92 J
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	29000	25000
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**2300**	**1300**
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	**39**	ug/l	4.9	16
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	2400	2800
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	93000	93000
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	**4.5**	ug/l	0.68 J	2.2 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	1 J	3.3 J

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Table G - General Chemistry Detection Results

			Location	N139	N139	RI-MW-10	RI-MW-10	RI-MW-11	RI-MW-11	RI-MW-31	RI-MW-31
			Sample #	MW-N139	MW-N139-F	RI-MW-10-F-Y1	RI-MW-10-Y1	RI-MW-11-F-Y1	RI-MW-11-Y1	RI-MW-31-F-Y1	RI-MW-31-Y1
			Start Depth	5.58	5.58	5	5	6	6	10	10
			End Depth	15.58	15.58	15	15	16	16	20	20
			Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft
			Sample Type	N	N	N	N	N	N	N	N
			Parent Sample #								
			Sample Date	11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023
Method Group	Analyte	CAS #	Units								
025-Mclouth_GenChem	Hardness	HARDNESS	mg/l	280	270	460	470	82	88	200	200

Acronyms:

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Table H - Waste Characterization Detection Results

					Location	-	-	-	-	-
					Sample #	WC-AQ-01	WC-AQ-02	WC-AQ-03	WC-AQ-04	WC-AQ-05
					Start Depth	-	-	-	-	-
					End Depth	-	-	-	-	-
					Depth Unit	-	-	-	-	-
					Sample Type	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization
					Parent Sample #	-	-	-	-	-
					Sample Date	12/1/2023	12/1/2023	12/1/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units						
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	0.017	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	**0.46**	ug/l		0.22 U	**0.71 J+**	**2.1 J+**	**4.5**	**1 J+**
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	1.1	ug/l		0.19	0.19	0.53	0.073 J	0.14
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	24	ug/l		5.4 UJ	5.2 UJ	5.2 UJ	5.3 UJ	5.2 UJ
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	120	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	1.2	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	4.6	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	36	ug/l		5.4 U	9.8	24	5.3 U	4 J
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	3.9	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	0.24	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	0.049	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	75	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	9.1	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	3.6	ug/l		0.068 J	0.13	0.56	0.11 U	0.084 J
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	93	ug/l		11 U	10 U	3.9 J	11 U	10 U
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	19	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	20	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	0.13	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	3-NITROANILINE	99-09-2		ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	0.15	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3		ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	140	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	0.37	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3		ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	37	ug/l		11 U	6.8 J	4.4 J	11 U	7.5 J
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	3.8	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7		ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	53	ug/l		0.15	0.1	0.1 U	0.056 J	0.053 J
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	52	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	190	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	ANTHRACENE	120-12-7	43	ug/l		0.12	0.12	0.1	0.2	0.17
002-Mclouth_SVOC	ATRAZINE	1912-24-9	0.3	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	19	ug/l		11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	0.03	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	0.025	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	0.25	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	1	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	1	ug/l		0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	16	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	0.083	ug/l		5.4 U	5.2 U	5.2 U	5.3 U	5.2 U

Table H - Waste Characterization Detection Results

				Location	-	-	-	-	-
				Sample #	WC-AQ-01	WC-AQ-02	WC-AQ-03	WC-AQ-04	WC-AQ-05
				Start Depth	-	-	-	-	-
				End Depth	-	-	-	-	-
				Depth Unit	-	-	-	-	-
				Sample Type	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization
				Parent Sample #	-	-	-	-	-
				Sample Date	12/1/2023	12/1/2023	12/1/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	5.9	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	0.014	ug/l	11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	71	ug/l	11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5.6	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	990	ug/l	11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	CARBAZOLE	86-74-8	85	ug/l	11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	CHRYSENE	218-01-9	1.6	ug/l	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	0.025	ug/l	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	0.79	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	1500	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	73000	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	90	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	20	ug/l	11 UJ	10 UJ	10 UJ	11 UJ	10 UJ
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	80	ug/l	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	FLUORENE	86-73-7	29	ug/l	0.059 J	0.089 J	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	0.0098	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	0.14	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	0.0189	ug/l	11 U	10 U	10 U	11 U	10 U
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	0.33	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	0.25	ug/l	0.11 U	0.1 U	0.1 U	0.11 U	0.1 U
002-Mclouth_SVOC	ISOPHORONE	78-59-1	78	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	**0.12**	ug/l	**1.1 J-**	**0.94**	**0.9**	0.11 U	**0.54**
002-Mclouth_SVOC	NITROBENZENE	98-95-3	0.14	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	0.011	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	12	ug/l	5.4 U	5.2 U	5.2 U	5.3 U	5.2 U
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	**0.041**	ug/l	0.22 U	**0.43**	0.21 U	0.21 U	0.21 U
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	52	ug/l	0.1 J	0.13	0.1 U	0.11 U	0.088 J
002-Mclouth_SVOC	PHENOL	108-95-2	580	ug/l	11 U	3.1 J	4.4 J	11 U	10 U
002-Mclouth_SVOC	PYRENE	129-00-0	12	ug/l	0.11 U	0.1 U	0.12 J+	0.11 U	0.1 U

Notes:

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J- - The result is an estimated quantity, but The results may be biased low
U - Not Detected

Table H - Waste Characterization Detection Results

				Location	-	-	-	-	-
				Sample #	WC-AQ-01	WC-AQ-02	WC-AQ-03	WC-AQ-04	WC-AQ-05
				Start Depth	-	-	-	-	-
				End Depth	-	-	-	-	-
				Depth Unit	-	-	-	-	-
				Sample Type	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization
				Parent Sample #	-	-	-	-	-
				Sample Date	12/1/2023	12/1/2023	12/1/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
003-Mclouth_PestPCB	ALDRIN	309-00-2	0.00092	ug/l	0.05 U	0.052 UJ	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	0.0072	ug/l	0.05 U	0.052 U	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	10	ug/l	0.05 U	0.052 U	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	0.36	ug/l	0.05 U	0.052 U	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	0.025	ug/l	0.05 U	0.052 U	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	10	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	1	ug/l	0.05 R	0.052 R	0.05 R	0.05 R	0.052 R
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	0.025	ug/l	0.05 U	0.052 U	0.05 UJ	0.05 UJ	0.052 UJ
003-Mclouth_PestPCB	DIELDRIN	60-57-1	0.0018	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	11	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN	72-20-8	0.23	ug/l	0.099 R	0.1 R	0.1 R	0.099 R	0.1 R
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	0.23	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	0.23	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	0.012	ug/l	0.05 R	0.052 R	0.05 R	0.05 R	0.052 R
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	**0.0014**	ug/l	0.05 U	0.052 UJ	0.05 UJ	**0.024 J-**	0.052 UJ
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	0.0014	ug/l	0.05 R	0.052 R	0.05 R	0.05 R	0.052 R
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	3.7	ug/l	0.5 UJ	0.52 UJ	0.5 UJ	0.5 UJ	0.52 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	0.032	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	0.046	ug/l	0.099 R	0.1 R	0.1 R	0.099 R	0.1 R
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	0.23	ug/l	0.099 U	0.1 U	0.1 UJ	0.099 UJ	0.1 UJ
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	0.14	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	0.0047	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	0.0047	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	0.0078	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	0.0078	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	0.0078	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	0.0078	ug/l	0.99 U	1 U	1 UJ	0.99 UJ	1 UJ
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	0.0078	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	0.0078	ug/l	0.99 R	1 R	1 R	0.99 R	1 R
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	0.071	ug/l	5 U	5.2 U	5 UJ	5 UJ	5.2 UJ

Notes:

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J - The identification of the analyte is acceptable; the reported value is an estimate

J- - The result is an estimated quantity, but The results may be biased low

U - Not Detected

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table H - Waste Characterization Detection Results

				Location	-	-	-	-	-
				Sample #	WC-AQ-01	WC-AQ-02	WC-AQ-03	WC-AQ-04	WC-AQ-05
				Start Depth	-	-	-	-	-
				End Depth	-	-	-	-	-
				Depth Unit	-	-	-	-	-
				Sample Type	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization
				Parent Sample #	-	-	-	-	-
				Sample Date	12/1/2023	12/1/2023	12/1/2023	12/1/2023	12/1/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
014-Mclouth_Inorg	Aluminum	7429-90-5	**300**	ug/l	20 U	170 J+	**550 J+**	240 J+	88 J+
014-Mclouth_Inorg	Antimony	7440-36-0	**0.78**	ug/l	0.36 J	**0.84 J**	0.46 J	**1.4 J**	0.32 J
014-Mclouth_Inorg	Arsenic	7440-38-2	**0.052**	ug/l	**1.2**	**1.3**	**2.3**	**3.7**	**4.1**
014-Mclouth_Inorg	Barium	7440-39-3	380	ug/l	200	69	24	95	69
014-Mclouth_Inorg	Beryllium	7440-41-7	2.5	ug/l	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	0.18	ug/l	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2		ug/l	19000	35000	21000	60000	220000
014-Mclouth_Inorg	Chromium	7440-47-3	100	ug/l	2 U	2 U	2 U	1.4 J	2.5 J
014-Mclouth_Inorg	Cobalt	7440-48-4	**0.6**	ug/l	**0.69 J**	0.22 J	0.27 J	**0.87 J**	0.3 J
014-Mclouth_Inorg	Copper	7440-50-8	80	ug/l	0.52 J	1.2 J	0.26 J	3.7	0.35 J
014-Mclouth_Inorg	CYANIDE	57-12-5	**0.15**	ug/l	**6.3 J**	**27**	**39**	**110**	**33**
014-Mclouth_Inorg	Iron	7439-89-6	1400	ug/l	280	130 J	630	820	42 J
014-Mclouth_Inorg	Lead	7439-92-1	**4**	ug/l	0.78 J	0.56 J	1 U	**4.5**	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	400000	ug/l	9800 J+	3000 J+	13000 J+	10000 J+	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	**43**	ug/l	**63**	24	31	**120**	0.69 J
014-Mclouth_Inorg	Mercury	7439-97-6	**0.063**	ug/l	**0.066 J**	0.2 U	**0.096 J**	**0.11 J**	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	39	ug/l	2	1.8	3.9	4	3.1
014-Mclouth_Inorg	Potassium	7440-09-7		ug/l	24000 J+	27000 J+	76000 J+	35000 J+	49000 J+
014-Mclouth_Inorg	Selenium	7782-49-2	10	ug/l	5 U	5 U	5 U	5 U	1.9 J
014-Mclouth_Inorg	Silver	7440-22-4	9.4	ug/l	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5		ug/l	36000 J+	66000 J+	120000 J+	84000 J+	76000 J+
014-Mclouth_Inorg	Thallium	7440-28-0	**0.02**	ug/l	1 U	**4 J**	**5.1 J**	**5.7 J**	**3.6 J**
014-Mclouth_Inorg	Vanadium	7440-62-2	4.5	ug/l	0.84 J	3.7 J	1.2 J	3.1 J	2.2 J
014-Mclouth_Inorg	Zinc	7440-66-6	600	ug/l	0.65 J	1.2 J	5 U	10	5 U

Notes:

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Table H - Waste Characterization Detection Results

				Location	-	-	-	-	-
				Sample #	WC-AQ-01	WC-AQ-02	WC-AQ-03	WC-AQ-04	WC-AQ-05
				Start Depth	-	-	-	-	-
				End Depth	-	-	-	-	-
				Depth Unit	-	-	-	-	-
				Sample Type	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization	Waste Characterization
				Parent Sample #	-	-	-	-	-
				Sample Date	12/5/2023	12/5/2023	12/5/2023	12/5/2023	12/5/2023
Method Group	Analyte	CAS #	Groundwater PAL	Units					
SM4500-S2-D	Sulfide	18496-25-8	10	mg/l	0.038 U	0.076 J	0.038 U	0.038 U	0.041 J

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Table I - VOC Quality Control Detection Results

			Location	-	-	-	-	-	-	-	-
			Sample #	EB-01-MW	EB-02-MW	EB-05-MW	EB-06-MW	EB-07-MW	EB-08-MW	EB-09-MW	TB-01-MW
			Start Depth	-	-	-	-	-	-	-	-
			End Depth	-	-	-	-	-	-	-	-
			Depth Unit	-	-	-	-	-	-	-	-
			Sample Type	EB	EB	EB	EB	EB	EB	EB	TB
			Parent Sample #	-	-	-	-	-	-	-	-
			Sample Date	11/15/2023	11/16/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023	11/13/2023
Method Group	Analyte	CAS #	Units								
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	ug/l	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	ug/l	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	ug/l	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	2-HEXANONE	591-78-6	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	ACETONE	67-64-1	ug/l	7.2	7.7	12	15	12	15	13	16
001-Mclouth_VOC	BENZENE	71-43-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOFORM	75-25-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	BROMOMETHANE	74-83-9	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROETHANE	75-00-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROFORM	67-66-3	ug/l	0.5 U	0.5 U	0.18 J	0.28 J	0.29 J	0.25 J	0.5 U	0.5 U
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.81
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	m,p-Xylene	179601-23-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ACETATE	79-20-9	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	ug/l	0.5 U	0.5 U	0.46 J	0.33 J	0.29 J	0.5 U	0.49 J	0.34 J
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	STYRENE	100-42-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TOLUENE	108-88-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	ug/l	0.5 U	0.5 U	0.05 U	0.18	0.05 U	0.05 U	0.05 U	0.05 U
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	ug/l	0.5 U	0.5 U	0.05 U	0.06	0.05 U	0.05 U	0.05 U	0.05 U

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

TB - Trip Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table I - VOC Quality Control Detection Results

			Location	-	-	-	-	-	-	-	-	-	-
			Sample #	TB-02-MW	TB-03-MW	TB-04-MW	TB-05-MW	TB-08-MW	TB-09-MW	TB-10-MW	TB-11-MW	TB-12-MW	
			Start Depth	-	-	-	-	-	-	-	-	-	
			End Depth	-	-	-	-	-	-	-	-	-	
			Depth Unit	-	-	-	-	-	-	-	-	-	
			Sample Type	TB	TB	TB	TB	TB	TB	TB	TB	TB	
			Parent Sample #	-	-	-	-	-	-	-	-	-	
			Sample Date	11/14/2023	11/15/2023	11/16/2023	11/17/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023	
Method Group	Analyte	CAS #	Units										
001-Mclouth_VOC	1,1,1-TRICHLOROETHANE	71-55-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,1,2,2-TETRACHLOROETHANE	79-34-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,1,2-TRICHLOROETHANE	79-00-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,1-DICHLOROETHANE	75-34-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,1-DICHLOROETHENE	75-35-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2,3-TRICHLOROBENZENE	87-61-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2,3-TRICHLOROPROPANE	96-18-4	ug/l	0.05 U	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
001-Mclouth_VOC	1,2,4-TRICHLOROBENZENE	120-82-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2,4-TRIMETHYLBENZENE	95-63-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	ug/l	0.05 U	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
001-Mclouth_VOC	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	ug/l	0.05 U	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
001-Mclouth_VOC	1,2-DICHLOROBENZENE	95-50-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2-DICHLOROETHANE	107-06-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,2-DICHLOROPROPANE	78-87-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	108-67-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,3-DICHLOROBENZENE	541-73-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	1,4-DICHLOROBENZENE	106-46-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	2-HEXANONE	591-78-6	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
001-Mclouth_VOC	ACETONE	67-64-1	ug/l	13	8.1	8.1	15	7.2	8.3	10	11	11	
001-Mclouth_VOC	BENZENE	71-43-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	BROMOCHLOROMETHANE	74-97-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	BROMODICHLOROMETHANE	75-27-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	BROMOFORM	75-25-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	BROMOMETHANE	74-83-9	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	
001-Mclouth_VOC	CARBON DISULFIDE	75-15-0	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CARBON TETRACHLORIDE	56-23-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CHLOROBENZENE	108-90-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CHLOROETHANE	75-00-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CHLOROFORM	67-66-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CHLOROMETHANE	74-87-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CIS-1,2-DICHLOROETHYLENE	156-59-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CIS-1,3-DICHLOROPROPENE	10061-01-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	CYCLOHEXANE	110-82-7	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	DIBROMOCHLOROMETHANE	124-48-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	DICHLORODIFLUOROMETHANE	75-71-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	ETHYLBENZENE	100-41-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	ISOPROPYLBENZENE (CUMENE)	98-82-8	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	m,p-Xylene	179601-23-1	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	METHYL ACETATE	79-20-9	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
001-Mclouth_VOC	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	
001-Mclouth_VOC	METHYLCYCLOHEXANE	108-87-2	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	METHYLENE CHLORIDE	75-09-2	ug/l	0.5 U	0.25 J	0.5 U	0.5 U	0.32 J	0.5 U	0.5 U	0.5 U	0.31 J	
001-Mclouth_VOC	O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	STYRENE	100-42-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TERT-BUTYL METHYL ETHER	1634-04-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TETRACHLOROETHENE (PCE)	127-18-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TOLUENE	108-88-3	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TRANS-1,2-DICHLOROETHENE	156-60-5	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TRANS-1,3-DICHLOROPROPENE	10061-02-6	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	TRICHLOROETHENE (TCE)	79-01-6	ug/l	0.05 U	0.5 U	0.5 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
001-Mclouth_VOC	TRICHLOROFLUOROMETHANE	75-69-4	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
001-Mclouth_VOC	VINYL CHLORIDE	75-01-4	ug/l	0.05 U	0.5 U	0.5 U	0.5 U	0.05 U	0.02 J	0.05 U	0.05 U	0.05 U	

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

TB - Trip Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table J - SVOC Quality Control Detection Results

				Location	EB-01-MW	EB-02-MW	EB-03-MW	EB-04-MW	EB-05-MW	EB-06-MW	EB-07-MW	EB-08-MW	EB-09-MW
				Sample #	-	-	-	-	-	-	-	-	-
				Start Depth	-	-	-	-	-	-	-	-	-
				End Depth	-	-	-	-	-	-	-	-	-
				Depth Unit	EB	EB	EB	EB	EB	EB	EB	EB	EB
				Sample Type	-	-	-	-	-	-	-	-	-
				Parent Sample #	11/15/2023	11/16/2023	11/20/2023	11/21/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023
Method Group	Analyte	CAS #	Units	Sample Date									
002-Mclouth_SVOC	1,2,4,5-TETRACHLOROBENZENE	95-94-3	ug/l		5.1 U	5.2 U			5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	1,4-DIOXANE (P-DIOXANE)	123-91-1	ug/l		0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.15 J
002-Mclouth_SVOC	1-METHYLNAPHTHALENE	90-12-0	ug/l		0.077 J	0.039 J	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	2,3,4,6-TETRACHLOROPHENOL	58-90-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 UJ
002-Mclouth_SVOC	2,4,5-TRICHLOROPHENOL	95-95-4	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2,4,6-TRICHLOROPHENOL	88-06-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2,4-DICHLOROPHENOL	120-83-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2,4-DIMETHYLPHENOL	105-67-9	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2,4-DINITROPHENOL	51-28-5	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	2,4-DINITROTOLUENE	121-14-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2,6-DINITROTOLUENE	606-20-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2-CHLORONAPHTHALENE	91-58-7	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2-CHLOROPHENOL	95-57-8	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2-METHYLNAPHTHALENE	91-57-6	ug/l		0.077 J	0.041 J	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	2-METHYLPHENOL (O-CRESOL)	95-48-7	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	2-NITROANILINE	88-74-4	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	2-NITROPHENOL	88-75-5	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	3,3'-DICHLOROBENZIDINE	91-94-1	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	3-NITROANILINE	99-09-2	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	4,6-DINITRO-2-METHYLPHENOL	534-52-1	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	4-BROMOPHENYL PHENYL ETHER	101-55-3	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	4-CHLORO-3-METHYLPHENOL	59-50-7	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	4-CHLOROANILINE	106-47-8	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	4-CHLOROPHENYL PHENYL ETHER	7005-72-3	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	4-METHYLPHENOL (P-CRESOL)	106-44-5	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	4-NITROANILINE	100-01-6	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	4-NITROPHENOL	100-02-7	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	ACENAPHTHENE	83-32-9	ug/l		0.053 J	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	ACENAPHTHYLENE	208-96-8	ug/l		0.067 J	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	ACETOPHENONE	98-86-2	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	ANTHRACENE	120-12-7	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	ATRAZINE	1912-24-9	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	BENZALDEHYDE	100-52-7	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	BENZO(A)ANTHRACENE	56-55-3	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	BENZO(A)PYRENE	50-32-8	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	BENZO(B)FLUORANTHENE	205-99-2	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	BENZO(G,H,I)PERYLENE	191-24-2	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	BENZO(K)FLUORANTHENE	207-08-9	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	BENZYL BUTYL PHTHALATE	85-68-7	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	BIPHENYL (DIPHENYL)	92-52-4	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	BIS(2-CHLOROETHOXY) METHANE	111-91-1	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	CAPROLACTAM	105-60-2	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	CARBAZOLE	86-74-8	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	CHRYSENE	218-01-9	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	DIBENZ(A,H)ANTHRACENE	53-70-3	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	DIBENZOFURAN	132-64-9	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	DIETHYL PHTHALATE	84-66-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	DIMETHYL PHTHALATE	131-11-3	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	DI-N-BUTYL PHTHALATE	84-74-2	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	DI-N-OCTYLPHTHALATE	117-84-0	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 UJ
002-Mclouth_SVOC	FLUORANTHENE	206-44-0	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	FLUORENE	86-73-7	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	HEXACHLOROBENZENE	118-74-1	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	HEXACHLOROBUTADIENE	87-68-3	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	HEXACHLOROCYCLOPENTADIENE	77-47-4	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	HEXACHLOROETHANE	67-72-1	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	INDENO(1,2,3-C,D)PYRENE	193-39-5	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	ISOPHORONE	78-59-1	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	NAPHTHALENE	91-20-3	ug/l		0.093 J	0.055 J	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	NITROBENZENE	98-95-3	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	N-NITROSODI-N-PROPYLAMINE	621-64-7	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	N-NITROSODIPHENYLAMINE	86-30-6	ug/l		5.1 U	5.2 U	-	-	5.1 U	5.1 U	5.1 U	5 U	4.9 U
002-Mclouth_SVOC	PENTACHLOROPHENOL	87-86-5	ug/l		0.2 U	0.21 U	-	-	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U
002-Mclouth_SVOC	PHENANTHRENE	85-01-8	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U
002-Mclouth_SVOC	PHENOL	108-95-2	ug/l		10 U	10 U	-	-	10 U	10 U	10 U	10 U	9.7 U
002-Mclouth_SVOC	PYRENE	129-00-0	ug/l		0.1 U	0.1 U	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.097 U

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table K - Pesticides/PCBs Quality Control Detection Results

			Location	-	-	-	-	-	-	-
			Sample #	EB-01-MW	EB-02-MW	EB-05-MW	EB-06-MW	EB-07-MW	EB-08-MW	EB-09-MW
			Start Depth	-	-	-	-	-	-	-
			End Depth	-	-	-	-	-	-	-
			Depth Unit	-	-	-	-	-	-	-
			Sample Type	EB	EB	EB	EB	EB	EB	EB
			Parent Sample #	-	-	-	-	-	-	-
			Sample Date	11/15/2023	11/16/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023
Method Group	Analyte	CAS #	Units							
003-Mclouth_PestPCB	ALDRIN	309-00-2	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA ENDOSULFAN	959-98-8	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	ALPHA-CHLORDANE	5103-71-9	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	BETA ENDOSULFAN	33213-65-9	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.1 U
003-Mclouth_PestPCB	BETA-CHLORDANE	5103-74-2	ug/l	0.051 U	0.051 U	0.05 R	0.052 R	0.05 R	0.05 R	0.051 R
003-Mclouth_PestPCB	DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	DIELDRIN	60-57-1	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.1 U
003-Mclouth_PestPCB	ENDOSULFAN SULFATE	1031-07-8	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.1 U
003-Mclouth_PestPCB	ENDRIN	72-20-8	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.1 R
003-Mclouth_PestPCB	ENDRIN ALDEHYDE	7421-93-4	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 UJ	0.099 UJ	0.1 U
003-Mclouth_PestPCB	ENDRIN KETONE	53494-70-5	ug/l	0.1 U	0.1 UJ	0.1 U	0.1 U	0.099 U	0.099 U	0.1 U
003-Mclouth_PestPCB	GAMMA BHC (LINDANE)	58-89-9	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 R
003-Mclouth_PestPCB	HEPTACHLOR	76-44-8	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 U
003-Mclouth_PestPCB	HEPTACHLOR EPOXIDE	1024-57-3	ug/l	0.051 U	0.051 U	0.05 U	0.052 U	0.05 U	0.05 U	0.051 R
003-Mclouth_PestPCB	METHOXYCHLOR	72-43-5	ug/l	0.51 U	0.51 U	0.5 U	0.52 U	0.5 UJ	0.5 UJ	0.51 UJ
003-Mclouth_PestPCB	P,P'-DDD	72-54-8	ug/l	0.1 U	0.1 UJ	0.1 U	0.1 U	0.099 U	0.099 U	0.1 U
003-Mclouth_PestPCB	P,P'-DDE	72-55-9	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.1 R
003-Mclouth_PestPCB	P,P'-DDT	50-29-3	ug/l	0.1 U	0.1 UJ	0.1 U	0.1 U	0.099 UJ	0.099 UJ	0.1 U
003-Mclouth_PestPCB	PCB-1016 (AROCLOR 1016)	12674-11-2	ug/l	1 UJ	1 UJ	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1221 (AROCLOR 1221)	11104-28-2	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1232 (AROCLOR 1232)	11141-16-5	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1242 (AROCLOR 1242)	53469-21-9	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1248 (AROCLOR 1248)	12672-29-6	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1254 (AROCLOR 1254)	11097-69-1	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1260 (AROCLOR 1260)	11096-82-5	ug/l	1 UJ	1 UJ	1 U	1 U	0.99 U	0.99 U	1 U
003-Mclouth_PestPCB	PCB-1262 (AROCLOR 1262)	37324-23-5	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	PCB-1268 (AROCLOR 1268)	11100-14-4	ug/l	1 U	1 U	1 U	1 U	0.99 U	0.99 U	1 R
003-Mclouth_PestPCB	TOXAPHENE	8001-35-2	ug/l	5.1 U	5.1 U	5 U	5.2 U	5 U	5 U	5.1 U

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Table L - Dioxin/Furans Quality Control Detection Results

			Location	-	-	-	-	-	-	-	-	-
			Sample #	EB-01-MW	EB-02-MW	EB-03-MW	EB-04-MW	EB-05-MW	EB-06-MW	EB-07-MW	EB-08-MW	EB-09-MW
			Start Depth	-	-	-	-	-	-	-	-	-
			End Depth	-	-	-	-	-	-	-	-	-
			Depth Unit	-	-	-	-	-	-	-	-	-
			Sample Type	EB	EB	EB	EB	EB	EB	EB	EB	EB
			Parent Sample #	-	-	-	-	-	-	-	-	-
			Sample Date	11/15/2023	11/16/2023	11/20/2023	11/21/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023
Method Group	Analyte	CAS #	Units									
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	67562-39-4	pg/l	9.9 U	10 U	9.9 U	9.9 U	9.9 U	9.9 U	9.9 U	10 U	9.7 U
007-Mclouth_DioxFur	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	35822-46-9	pg/l	25 U	26 U	25 U	25 U	25 U	25 U	25 U	26 U	25 U
007-Mclouth_DioxFur	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	55673-89-7	pg/l	3.7 U	2.8 U	2.7 U	2.7 U	2.7 U	2.7 U	3.8 U	2.8 U	5.8 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	70648-26-9	pg/l	2.9 U	3 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	3 U	2.8 U
007-Mclouth_DioxFur	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	39227-28-6	pg/l	3.4 U	3.5 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.5 U	3.3 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	57117-44-9	pg/l	3.2 U	3.3 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.3 U	3.1 U
007-Mclouth_DioxFur	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	57653-85-7	pg/l	4.3 U	4.5 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.4 U	4.2 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	72918-21-9	pg/l	3.3 U	2.9 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3.8 U
007-Mclouth_DioxFur	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	19408-74-3	pg/l	3.5 U	3.6 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.6 U	3.5 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZOFURAN	57117-41-6	pg/l	3.7 U	3.9 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.8 U	3.6 U
007-Mclouth_DioxFur	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	40321-76-4	pg/l	2.8 U	2.9 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	3.5 U
007-Mclouth_DioxFur	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	60851-34-5	pg/l	2.5 U	2.3 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.5 U
007-Mclouth_DioxFur	2,3,4,7,8-PENTACHLORODIBENZOFURAN	57117-31-4	pg/l	3.7 U	3.9 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.8 U	3.6 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZOFURAN	51207-31-9	pg/l	1.8 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.5 U	1.3 U	1.7 U
007-Mclouth_DioxFur	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1746-01-6	pg/l	1.5 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.8 U
007-Mclouth_DioxFur	HEXACHLORODIBENZOFURAN	55684-94-1	pg/l	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	HEXACHLORODIBENZO-P-DIOXIN	34465-46-8	pg/l	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	OCTACHLORODIBENZOFURAN	39001-02-0	pg/l	25 U	26 U	25 U	25 U	25 U	25 U	25 U	26 U	25 U
007-Mclouth_DioxFur	OCTACHLORODIBENZO-P-DIOXIN	3268-87-9	pg/l	73 U	76 U	73 U	73 U	73 U	73 U	73 U	74 U	72 U
007-Mclouth_DioxFur	PENTACHLORO DIBENZOFURAN	30402-15-4	pg/l	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	PENTACHLORODIBENSO-P-DIOXIN	36088-22-9	pg/l	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
007-Mclouth_DioxFur	TETRACHLORODIBENZO-P-DIOXIN	41903-57-5	pg/l	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table M - PFAS Quality Control Detection Results

			Location	-	-	-	-
			Sample #	EB-08-MW	EB-09-MW	FB-07-MW	FB-09-MW
			Start Depth	-	-	-	-
			End Depth	-	-	-	-
			Depth Unit	-	-	-	-
			Sample Type	EB	EB	FB	FB
			Parent Sample #	-	-	-	-
			Sample Date	11/30/2023	12/1/2023	11/30/2023	12/1/2023
Method Group	Analyte	CAS #	Units				
012-Mclouth_PFAS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	756426-58-1	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorobutanesulfonic acid	375-73-5	ng/l	21.1 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorodecanoic acid	335-76-2	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorododecanoic acid	307-55-1	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluoroheptanoic acid	375-85-9	ng/l	10.5 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorohexanesulfonic acid	355-46-4	ng/l	189 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorohexanoic acid	307-24-4	ng/l	21.9 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorononanoic acid	375-95-1	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorooctanesulfonic acid	1763-23-1	ng/l	135 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorooctanoic acid	335-67-1	ng/l	26.8 J	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorotetradecanoic acid	376-06-7	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluorotridecanoic acid	72629-94-8	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ
012-Mclouth_PFAS	Perfluoroundecanoic acid	2058-94-8	ng/l	4.83 UJ	4.59 UJ	1.52 UJ	1.52 UJ

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

FB - Field Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table N - Inorganic Quality Control Detection Results

			Location	-	-	-	-	-	-	-	-	-
			Sample #	EB-01-MW	EB-02-MW	EB-03-MW	EB-04-MW	EB-05-MW	EB-06-MW	EB-07-MW	EB-08-MW	EB-09-MW
			Start Depth	-	-	-	-	-	-	-	-	-
			End Depth	-	-	-	-	-	-	-	-	-
			Depth Unit	-	-	-	-	-	-	-	-	-
			Sample Type	EB	EB	EB	EB	EB	EB	EB	EB	EB
			Parent Sample #	-	-	-	-	-	-	-	-	-
			Sample Date	11/15/2023	11/16/2023	11/20/2023	11/21/2023	11/27/2023	11/28/2023	11/29/2023	11/30/2023	12/1/2023
Method Group	Analyte	CAS #	Units									
014-Mclouth_Inorg	Aluminum	7429-90-5	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
014-Mclouth_Inorg	Antimony	7440-36-0	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	Arsenic	7440-38-2	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Barium	7440-39-3	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	0.7 J	10 U	10 U
014-Mclouth_Inorg	Beryllium	7440-41-7	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Cadmium	7440-43-9	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Calcium	7440-70-2	ug/l	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 UJ	500 U
014-Mclouth_Inorg	Chromium	7440-47-3	ug/l	2 U	2 U	2 U	2 U	6.5	2 U	2 U	2.6	2 U
014-Mclouth_Inorg	Cobalt	7440-48-4	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Copper	7440-50-8	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
014-Mclouth_Inorg	CYANIDE	57-12-5	ug/l	10 U	10 U	10 U	10 R	10 R	10 U	10 U	10 U	10 U
014-Mclouth_Inorg	Iron	7439-89-6	ug/l	200 U	42 J	200 U	200 U	25 J	200 U	200 U	200 U	200 U
014-Mclouth_Inorg	Lead	7439-92-1	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Magnesium	7439-95-4	ug/l	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
014-Mclouth_Inorg	Manganese	7439-96-5	ug/l	0.45 J	0.54 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Mercury	7439-97-6	ug/l	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
014-Mclouth_Inorg	Nickel	7440-02-0	ug/l	1 U	1 U	1 U	1 U	1.3	1 U	1 U	0.85 J	1 U
014-Mclouth_Inorg	Potassium	7440-09-7	ug/l	500 U	500 U	500 U	35 J	500 U	500 UJ	28 J	500 U	500 U
014-Mclouth_Inorg	Selenium	7782-49-2	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Silver	7440-22-4	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Sodium	7440-23-5	ug/l	500 U	500 U	500 U	500 U	33 J	500 U	500 U	32 J	500 U
014-Mclouth_Inorg	Thallium	7440-28-0	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
014-Mclouth_Inorg	Vanadium	7440-62-2	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
014-Mclouth_Inorg	Zinc	7440-66-6	ug/l	1.5 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Acronyms:

CAS # - Chemical Abstract Service Number

EB - Equipment Blank

J - The identification of the analyte is acceptable; the reported value is an estimate

U - Not Detected

Table O - General Chemistry Quality Control Detection Results

			Location	-
			Sample #	EB-06-MW
			Start Depth	-
			End Depth	-
			Depth Unit	-
			Sample Type	EB
			Parent Sample #	-
			Sample Date	11/28/2023
Method Group	Analyte	CAS #	Units	
025-Mclouth_GenChem	Hardness	HARDNESS	mg/l	33 U

Acronyms:

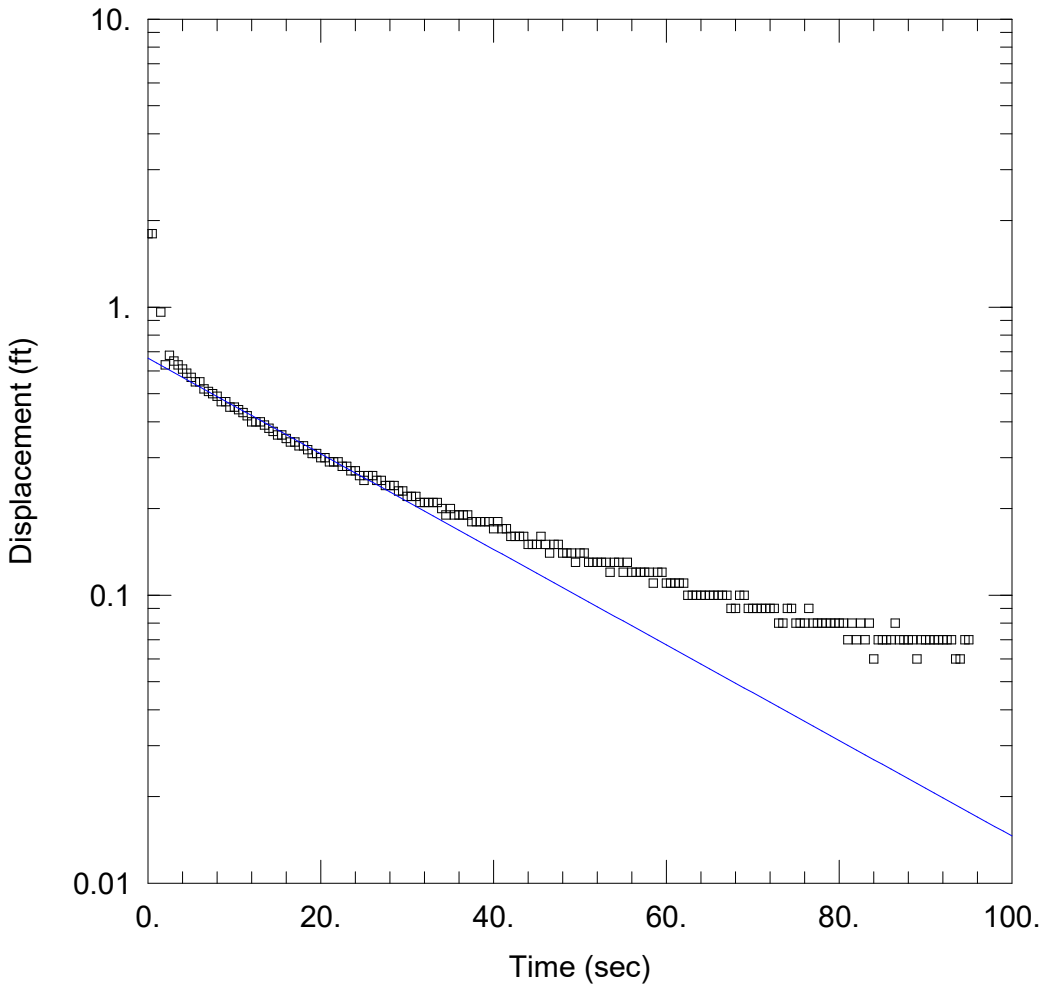
CAS # - Chemical Abstract Service Number

EB - Equipment Blank

U - Not Detected

Attachment C

Hydrogeologic Data



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:21:14

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

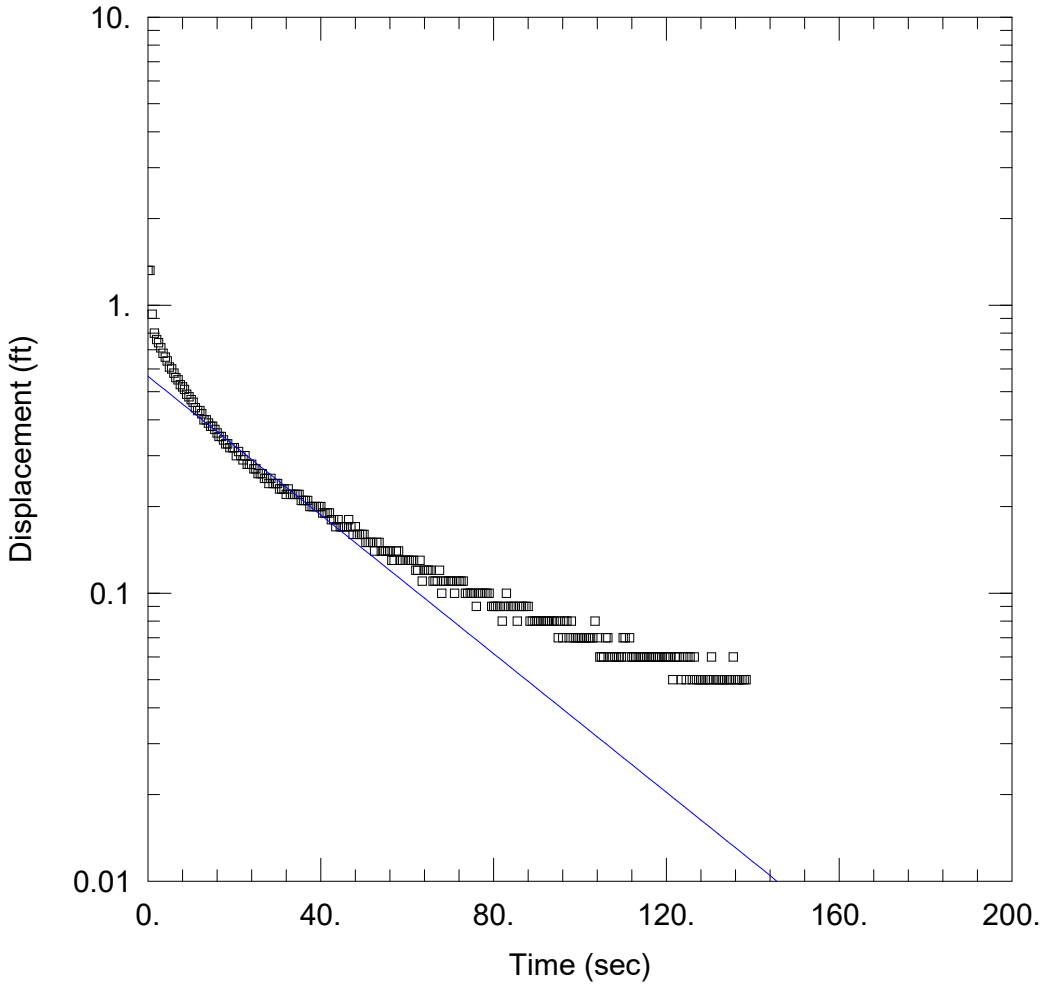
Saturated Thickness: 5.42 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2 Falling)

Initial Displacement: 1.8 ft
Total Well Penetration Depth: 5.42 ft
Casing Radius: 0.083 ft
Static Water Column Height: 5.42 ft
Screen Length: 5. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 3.187E-5 ft/sec
y0 = 0.6645 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:32:41

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

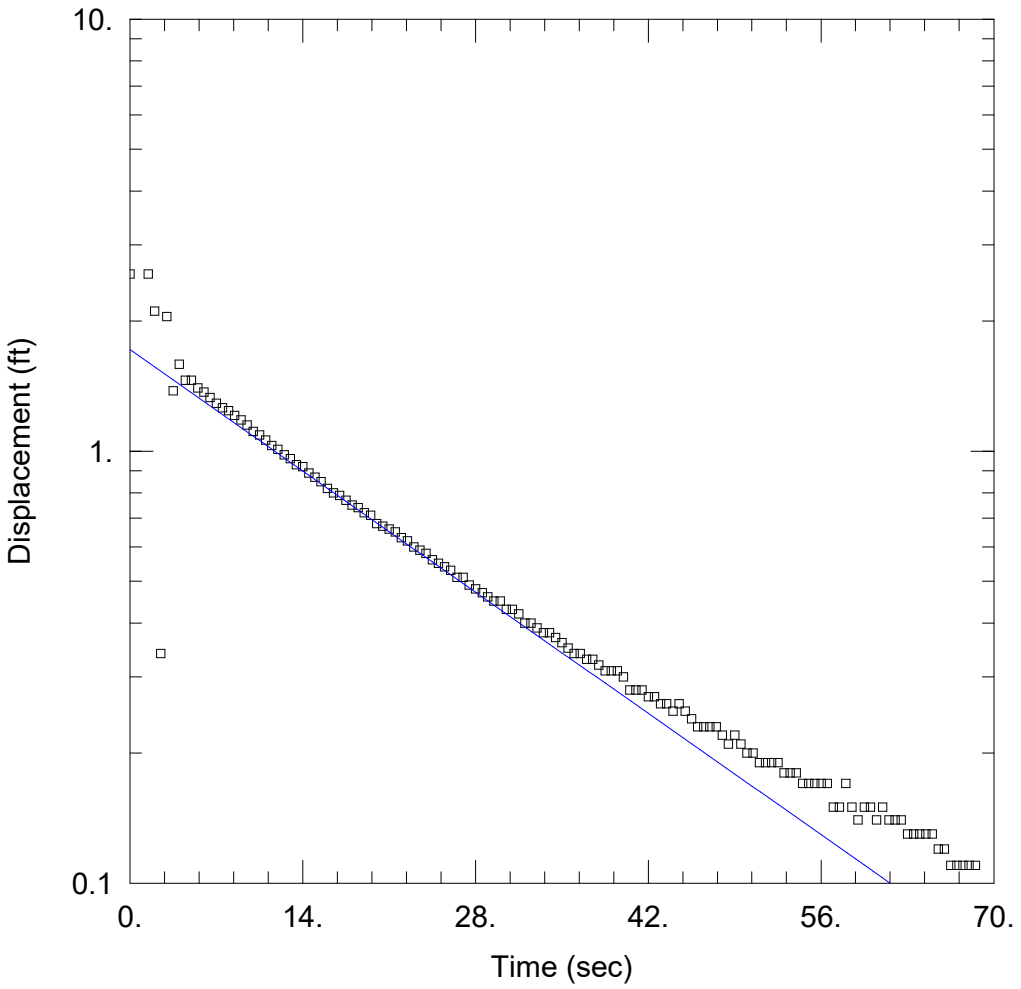
Saturated Thickness: 5.42 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2 Rising)

Initial Displacement: 1.32 ft
Total Well Penetration Depth: 5.42 ft
Casing Radius: 0.083 ft
Static Water Column Height: 5.42 ft
Screen Length: 5. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.313E-5 ft/sec
y0 = 0.5661 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\MW-8 Falling.aqt
Date: 05/14/24 Time: 17:03:14

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

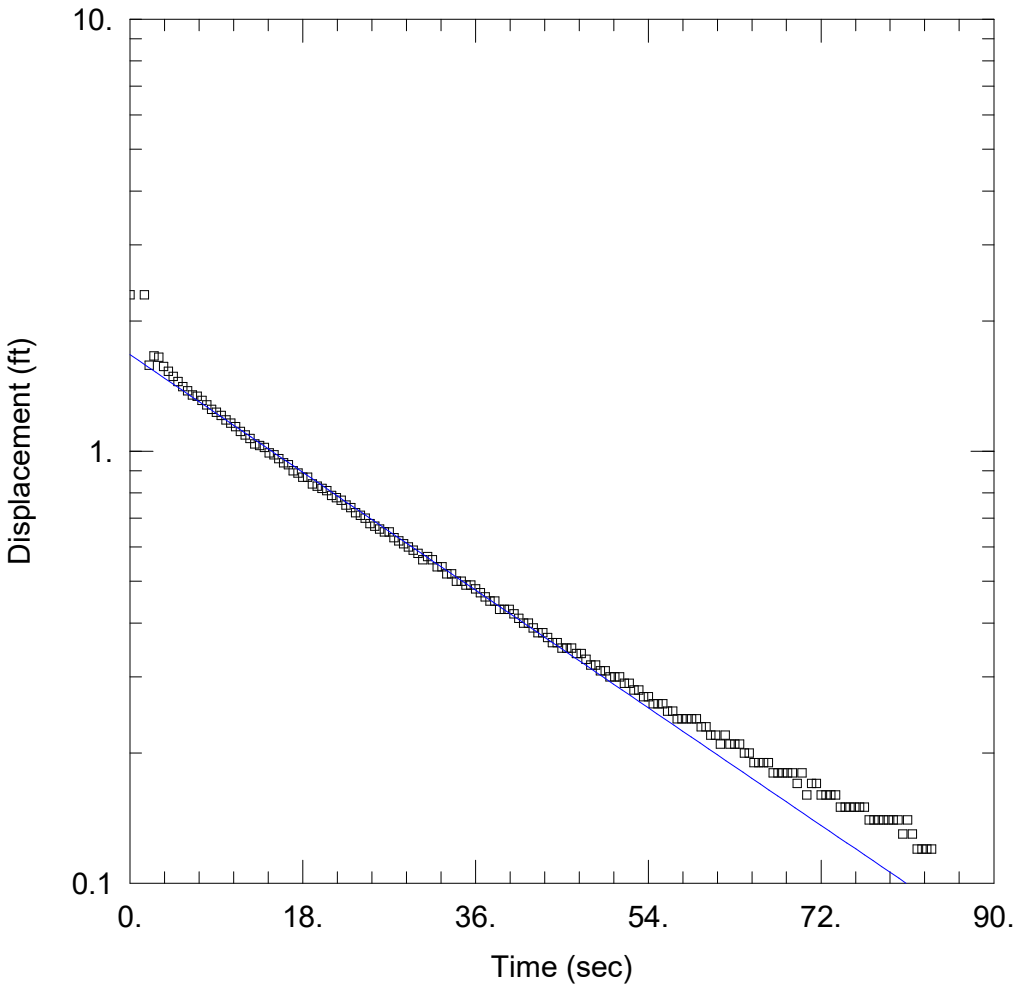
Saturated Thickness: 14.82 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8 Falling)

Initial Displacement: 2.57 ft
Total Well Penetration Depth: 14.82 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.82 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.966E-5 ft/sec
y0 = 1.718 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:36:37

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

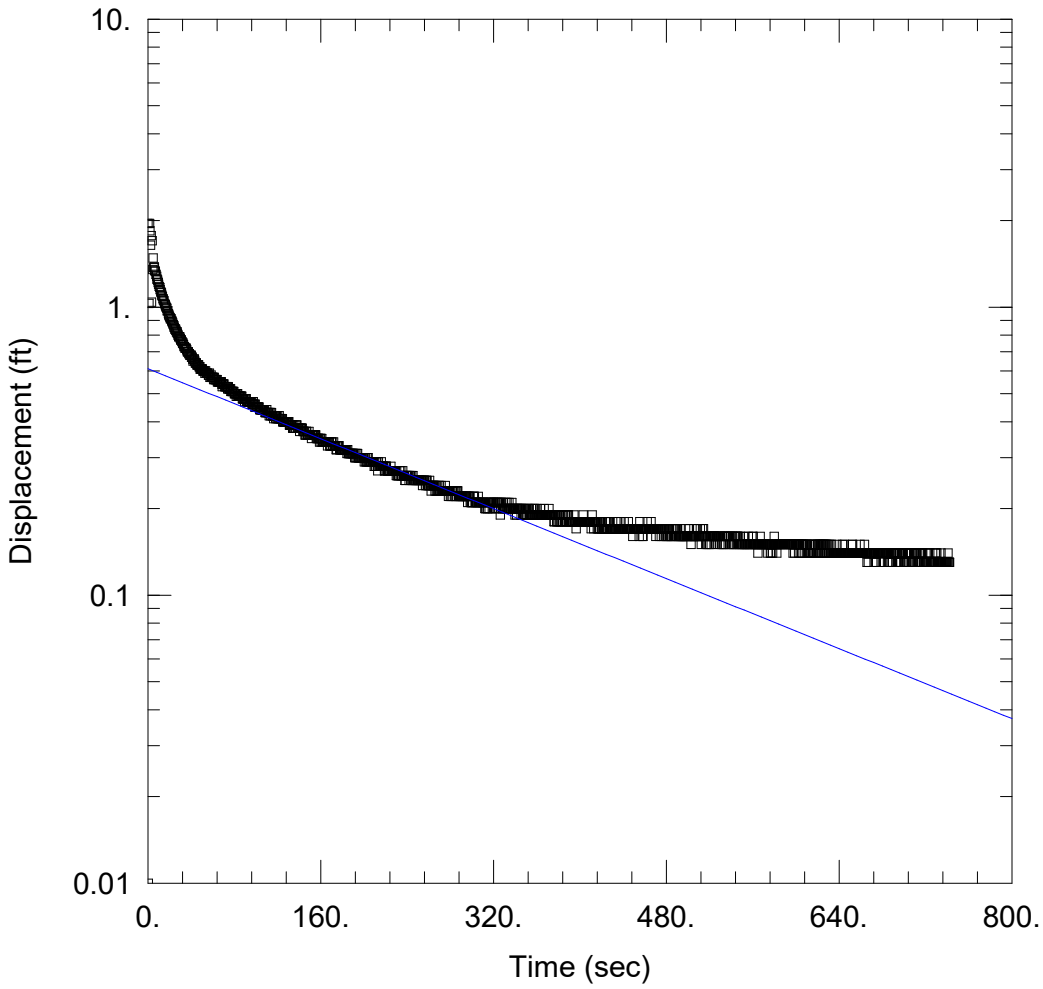
Saturated Thickness: 14.82 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8 Rising)

Initial Displacement: 2.3 ft
Total Well Penetration Depth: 14.82 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.82 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.238E-5 ft/sec
y0 = 1.672 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/15/24 Time: 19:26:06

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

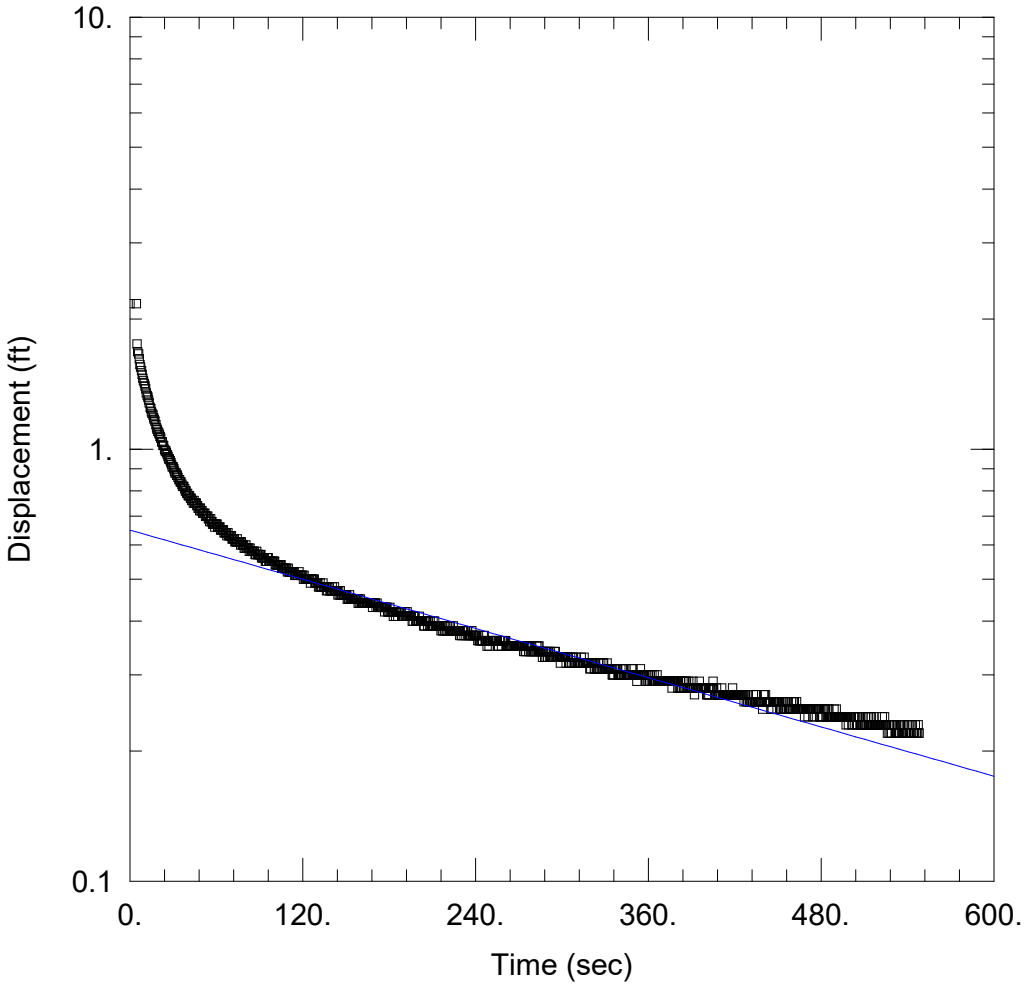
Saturated Thickness: 11.36 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11 Falling)

Initial Displacement: 1.95 ft
Total Well Penetration Depth: 11.36 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.36 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.074E-6 ft/sec
y0 = 0.6112 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/15/24 Time: 19:23:59

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

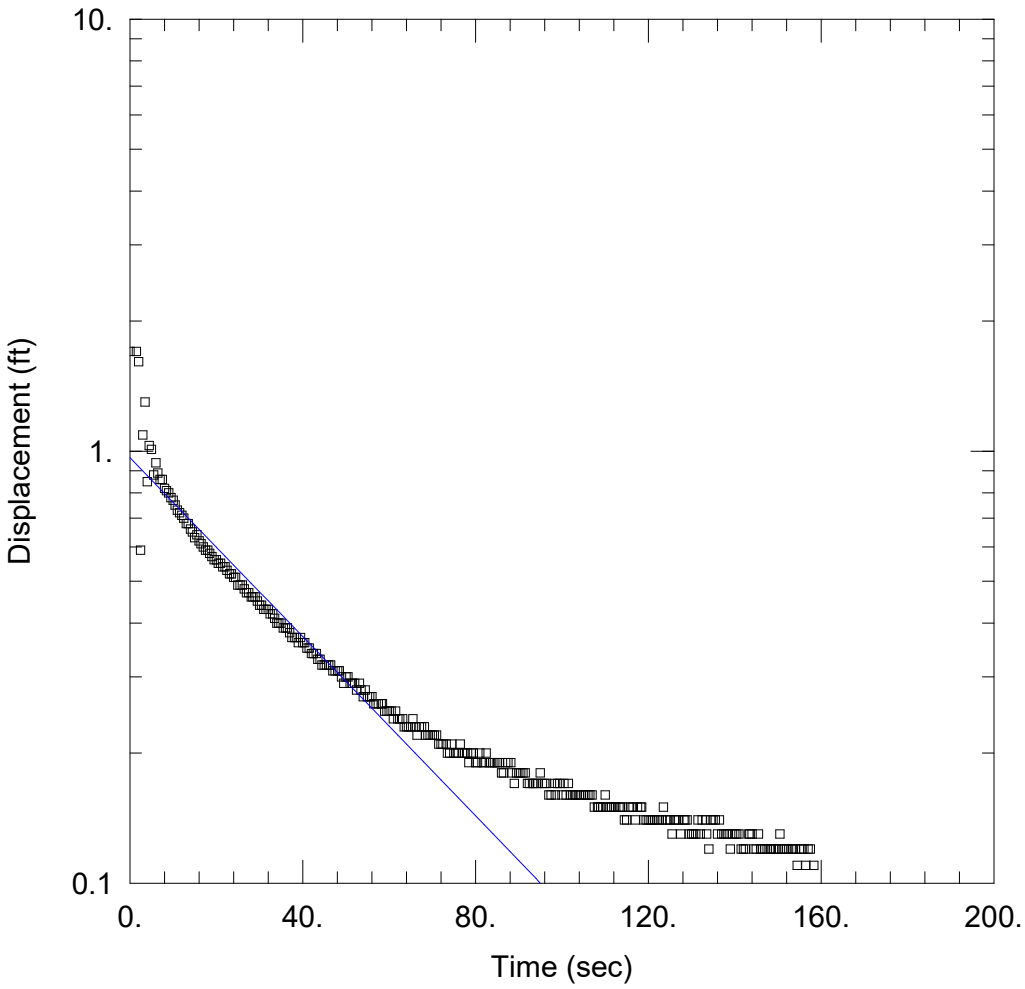
Saturated Thickness: 11.36 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11 Rising)

Initial Displacement: 2.17 ft
Total Well Penetration Depth: 11.36 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.36 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.296E-6 ft/sec
y0 = 0.6495 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:38:07

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

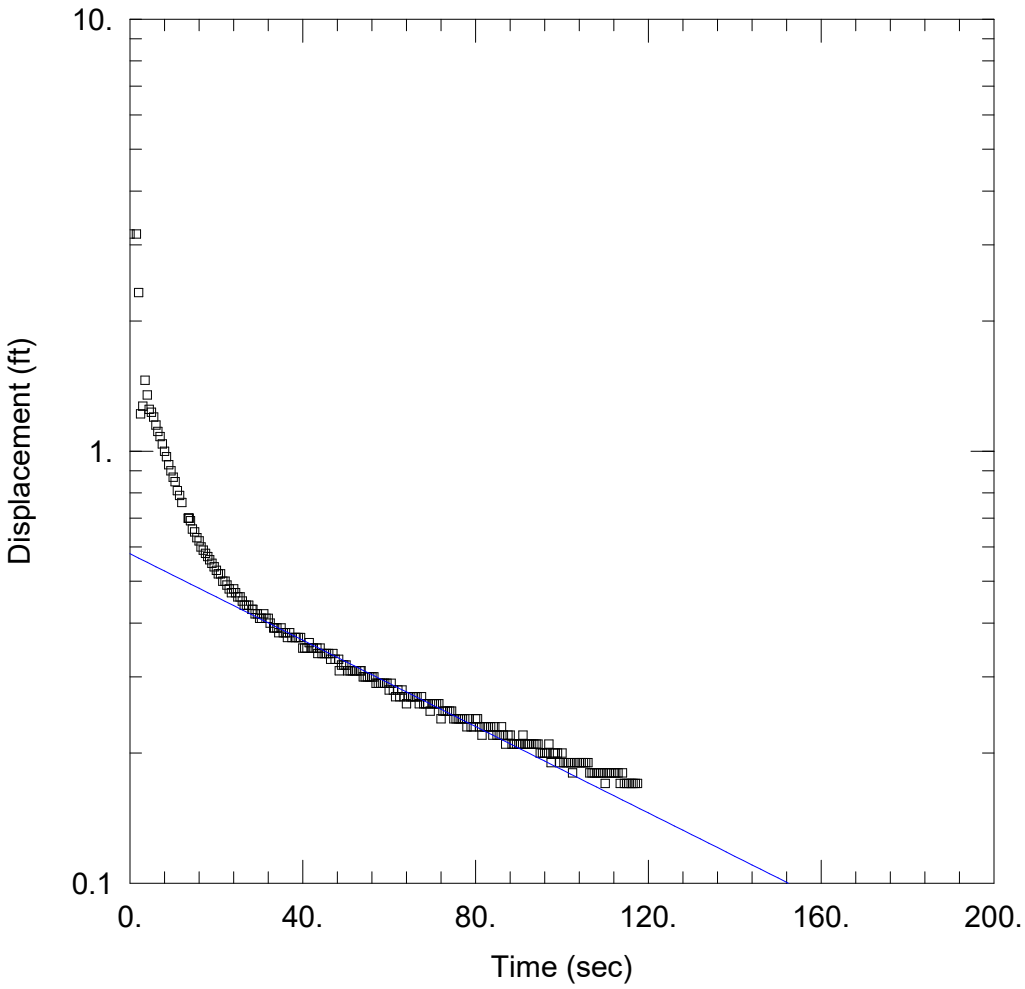
Saturated Thickness: 9.34 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17 Falling)

Initial Displacement: 1.7 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.34 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.441E-5 ft/sec
y0 = 0.9661 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:59:06

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

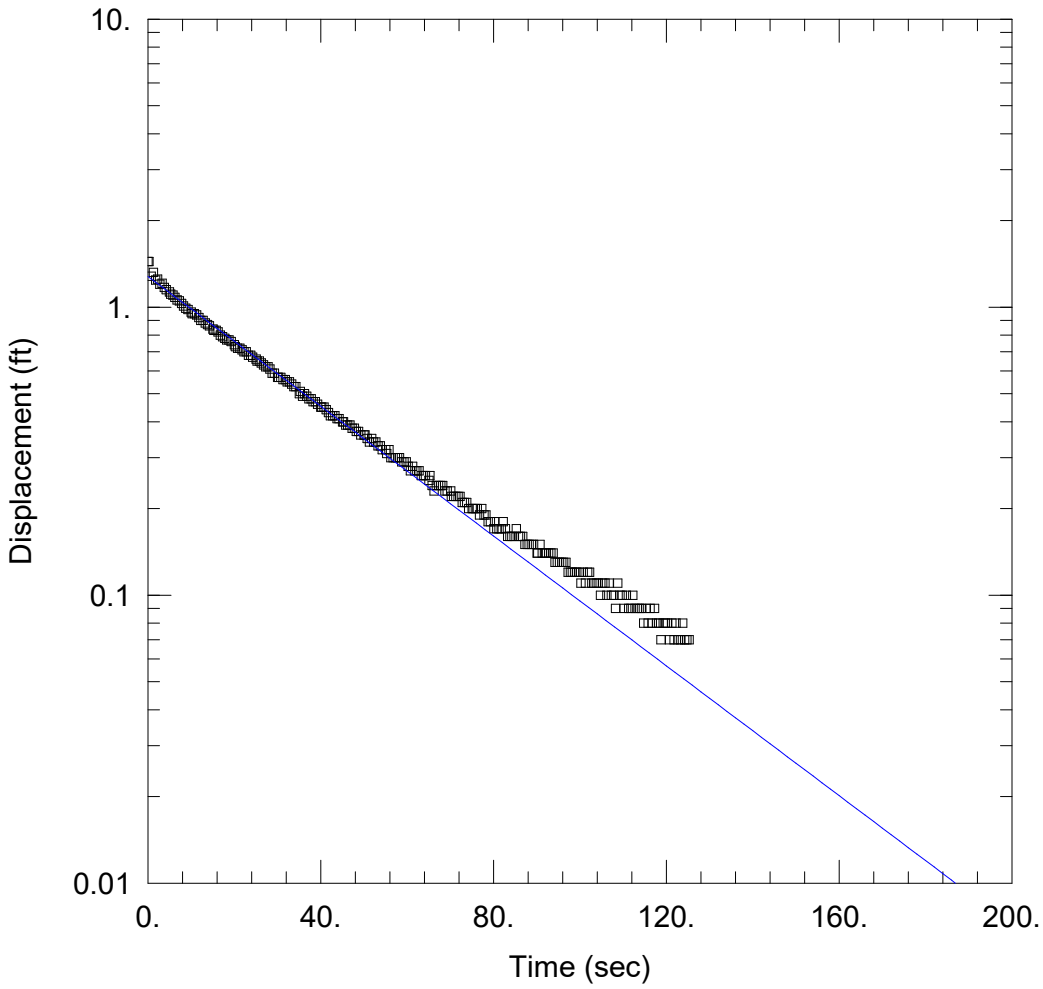
Saturated Thickness: 9.34 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17 Rising)

Initial Displacement: 3.18 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.34 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 6.951E-6 ft/sec
y0 = 0.5786 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:10:39

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

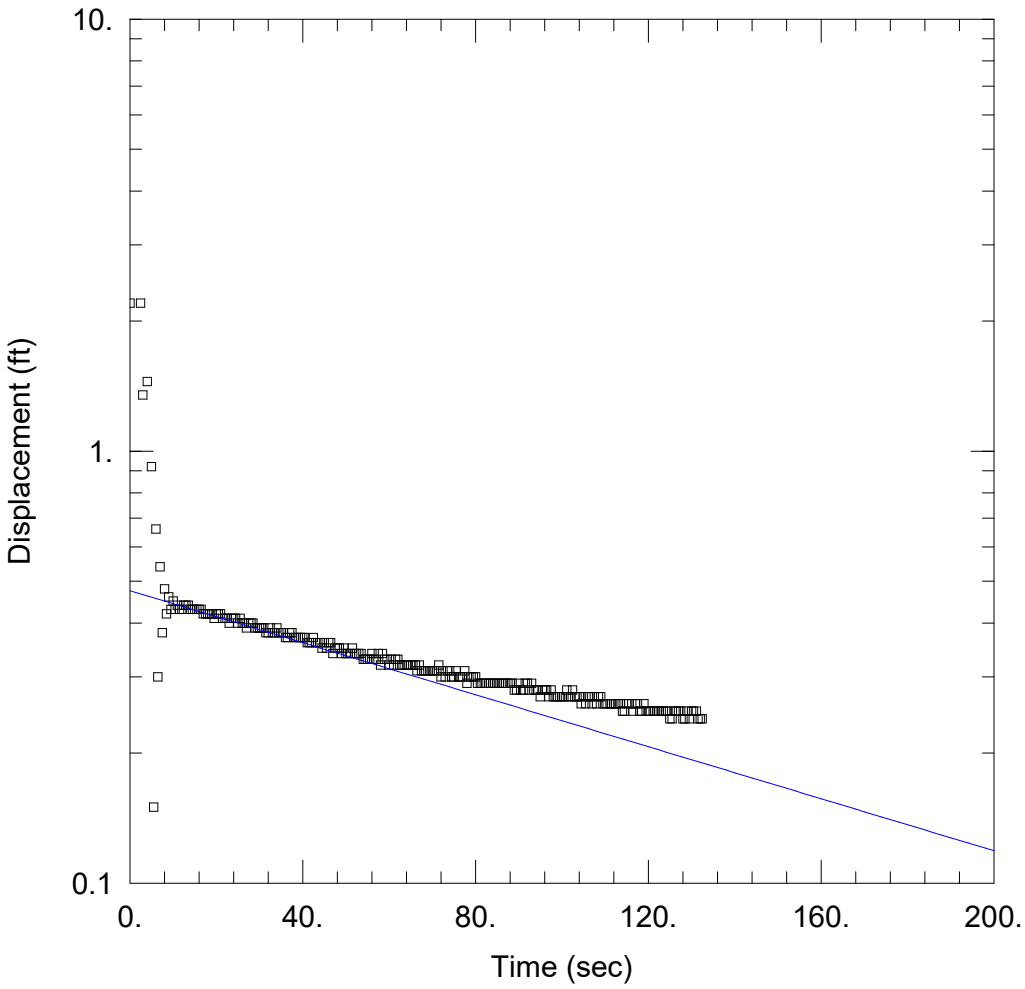
Saturated Thickness: 18.81 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19 Rising)

Initial Displacement: 1.44 ft
Total Well Penetration Depth: 18.81 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.81 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.776E-5 ft/sec
y0 = 1.278 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:45:48

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

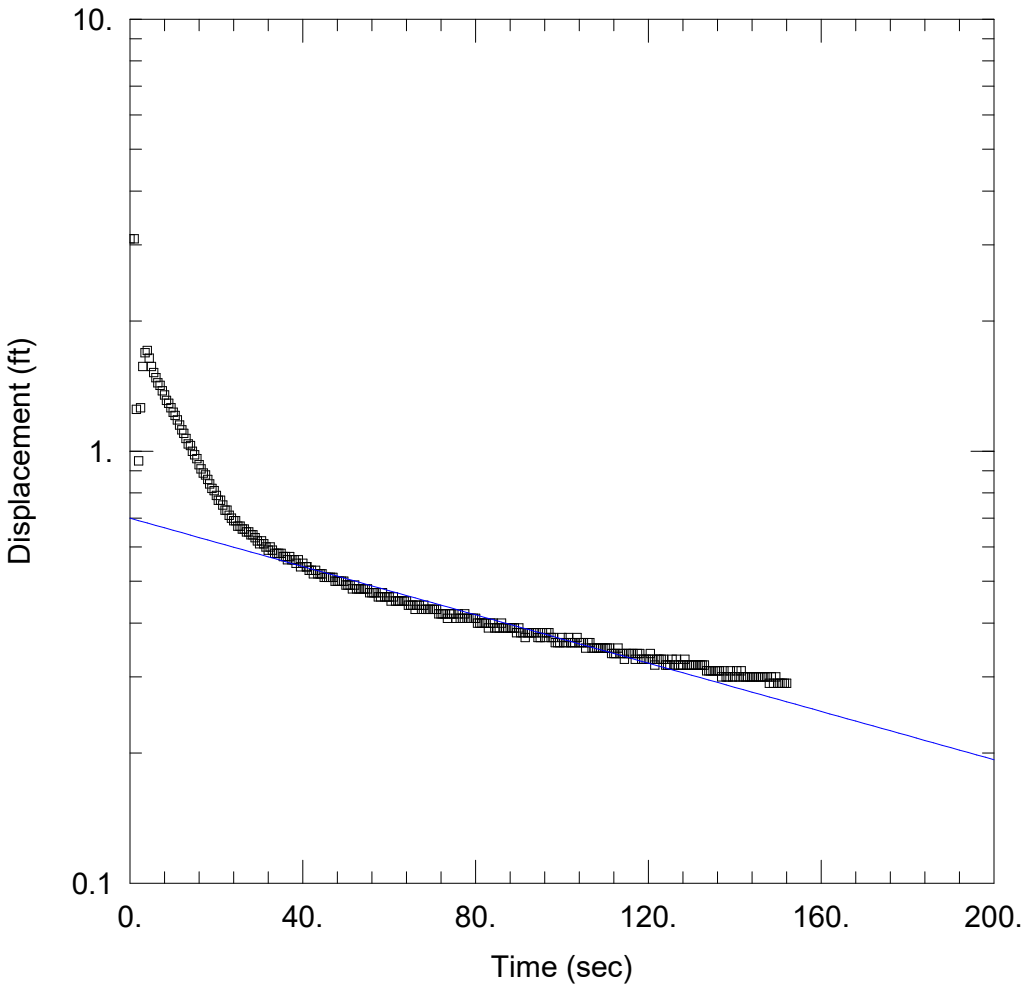
Saturated Thickness: 8.23 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23 Falling)

Initial Displacement: 2.2 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.23 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.678E-6 ft/sec
y0 = 0.4752 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:18:13

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

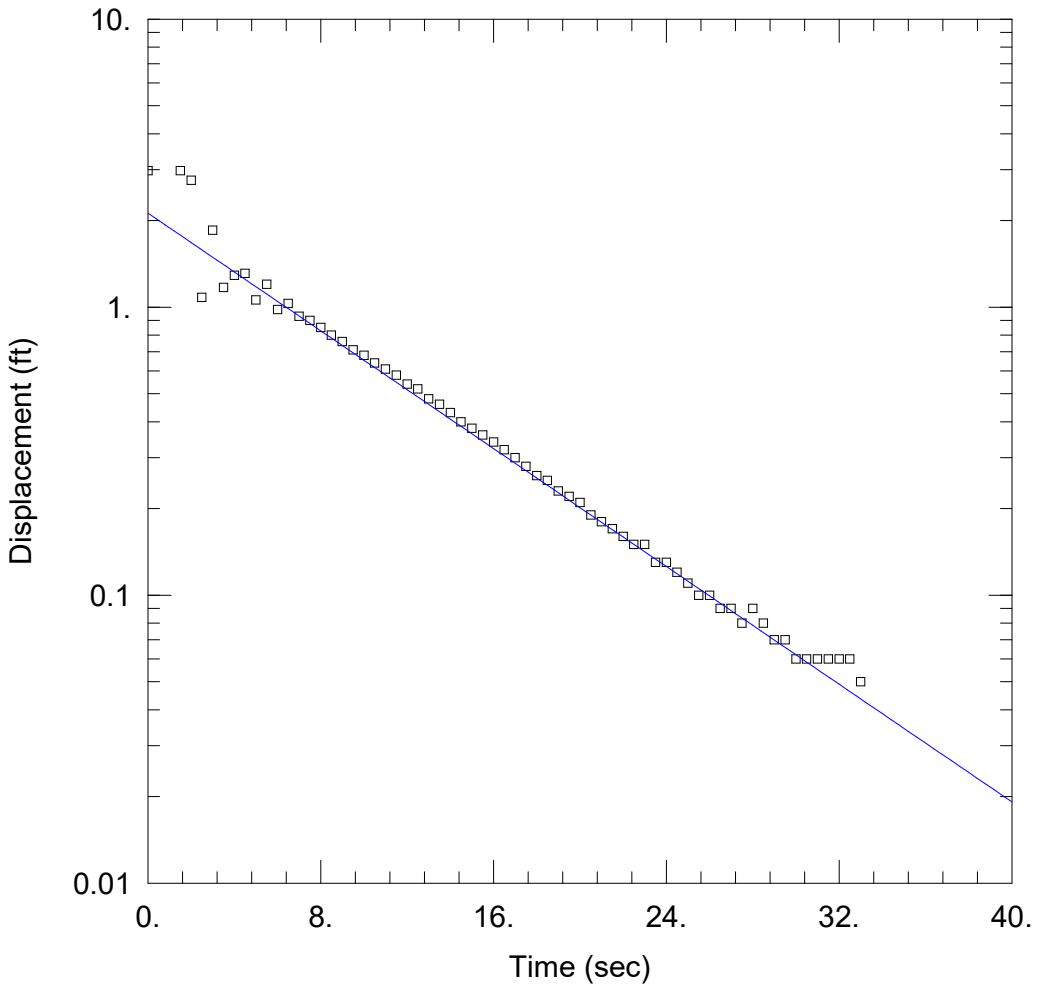
Saturated Thickness: 8.23 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23 Rising)

Initial Displacement: 3.1 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.23 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.345E-6 ft/sec
y0 = 0.6993 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:49:22

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

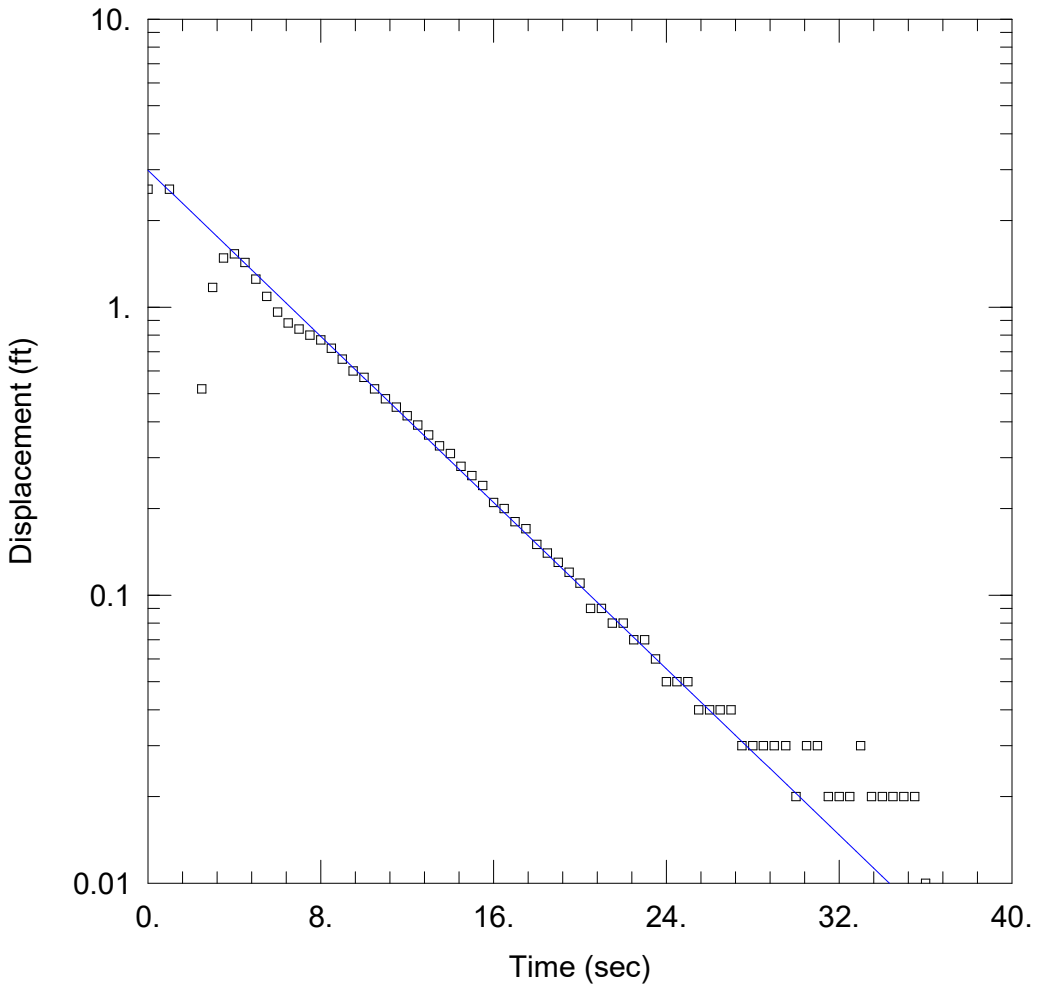
Saturated Thickness: 11.26 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25 Falling)

Initial Displacement: 2.98 ft
Total Well Penetration Depth: 11.26 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.26 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 6.956E-5 ft/sec
y0 = 2.12 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:23:49

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

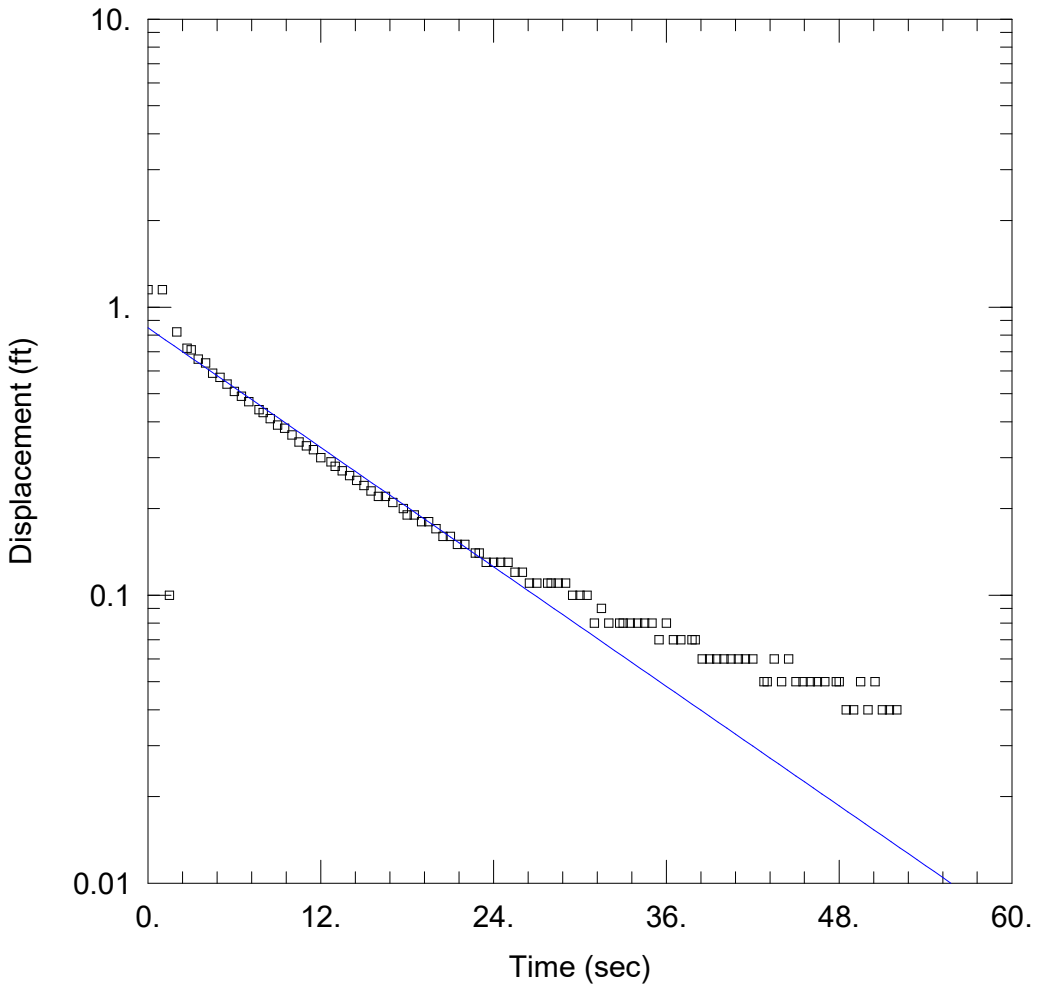
Saturated Thickness: 11.26 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25 Rising)

Initial Displacement: 2.57 ft
Total Well Penetration Depth: 11.26 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.26 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 9.816E-5 ft/sec
y0 = 2.988 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:52:26

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 13.53 ft Anisotropy Ratio (Kz/Kr): 1.

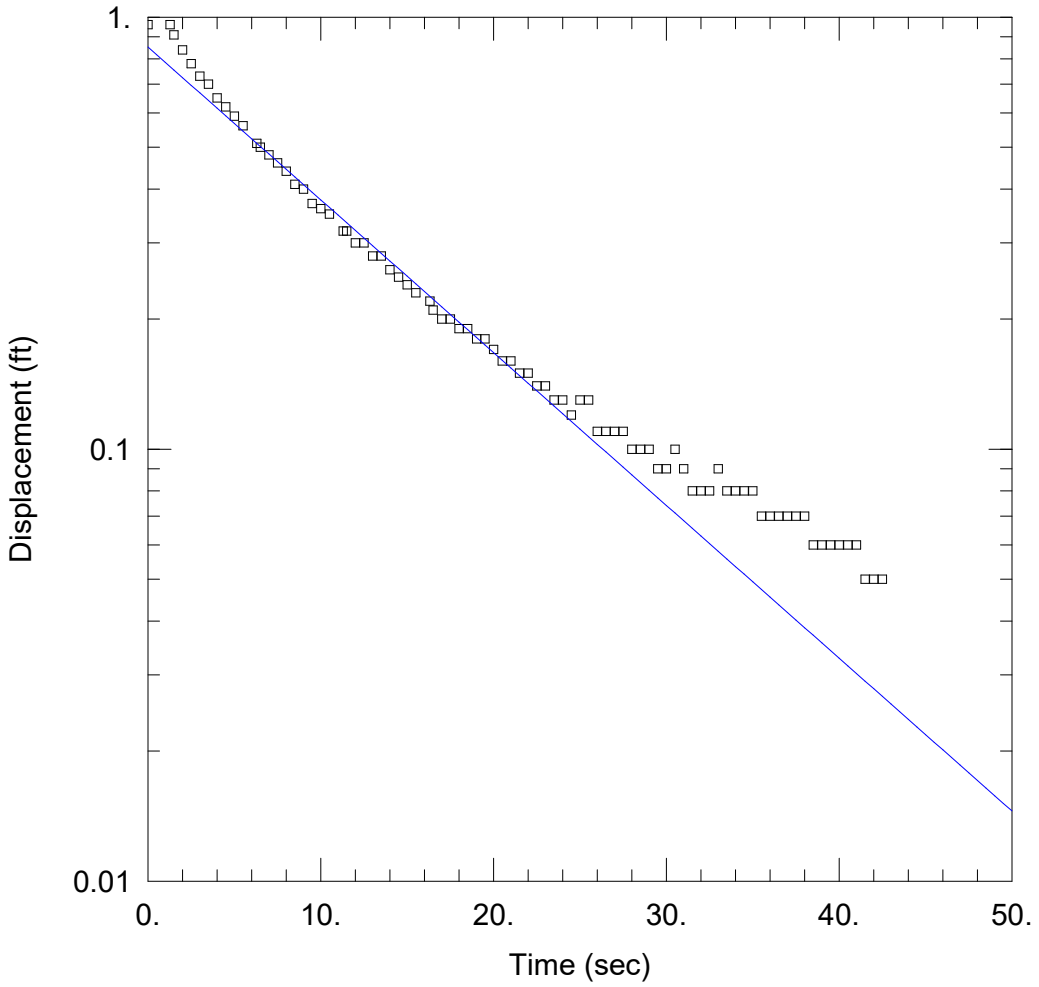
WELL DATA (MW-27 Falling)

Initial Displacement: 1.15 ft
Total Well Penetration Depth: 13.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.53 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 4.981E-5 ft/sec y0 = 0.8473 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:36:47

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

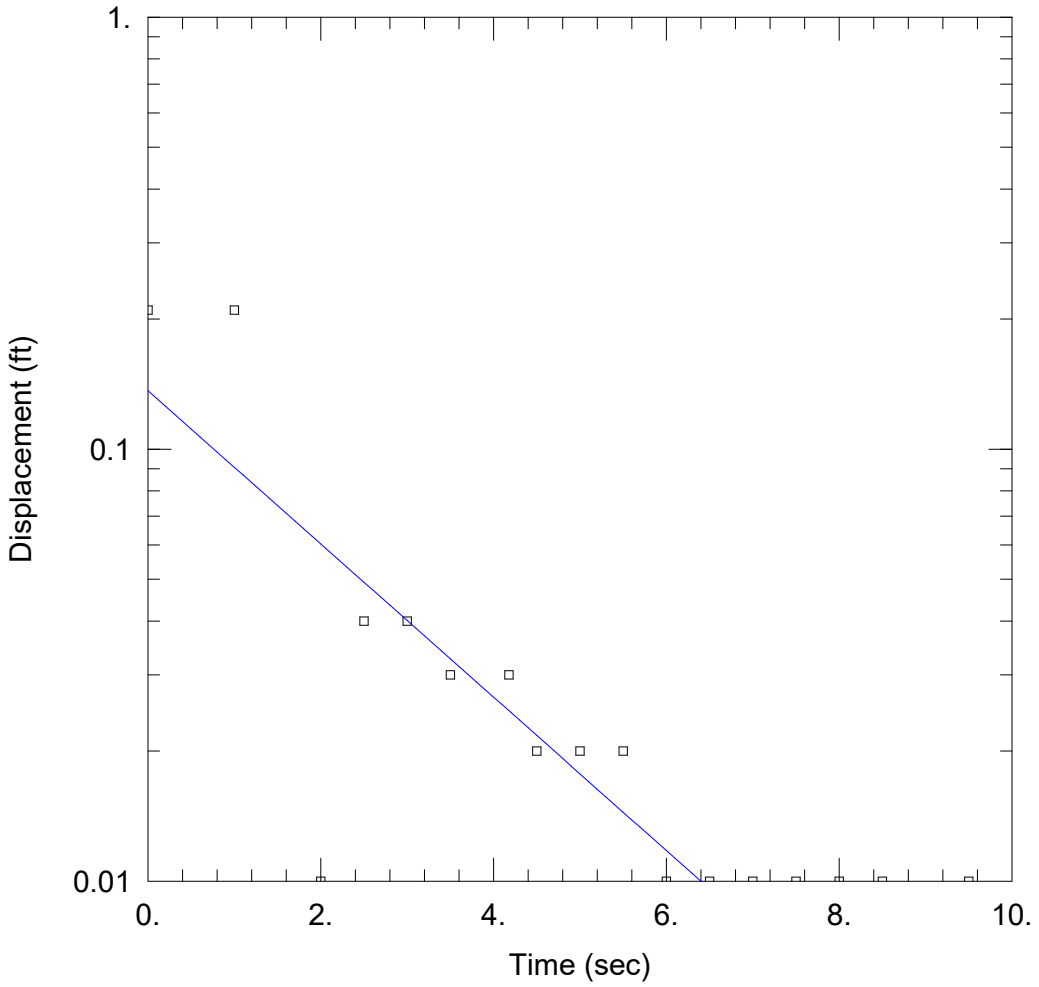
Saturated Thickness: 13.53 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-27 Rising)

Initial Displacement: 0.96 ft
Total Well Penetration Depth: 13.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.53 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.095E-5 ft/sec
y0 = 0.8524 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:14:51

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

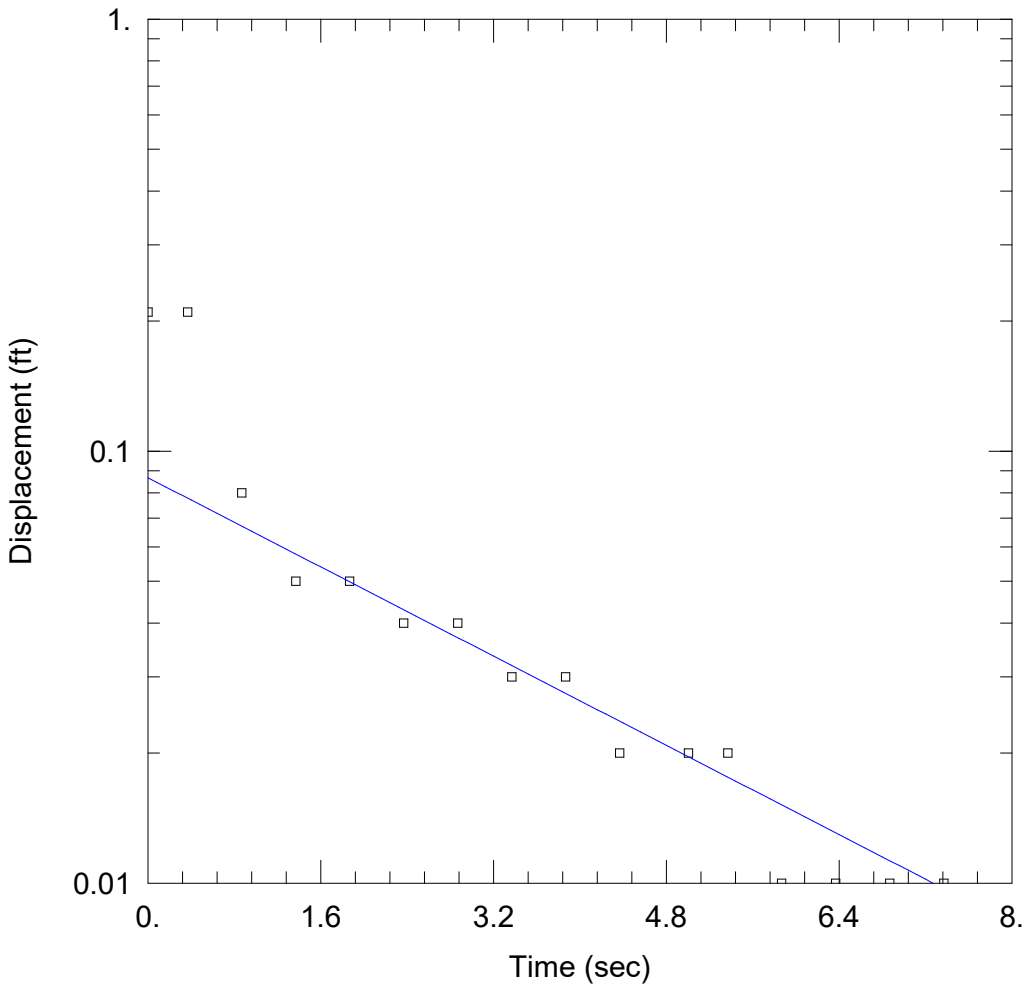
Saturated Thickness: 8.11 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-29 Falling)

Initial Displacement: 0.21 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.11 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002791 ft/sec
y0 = 0.1365 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:40:57

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

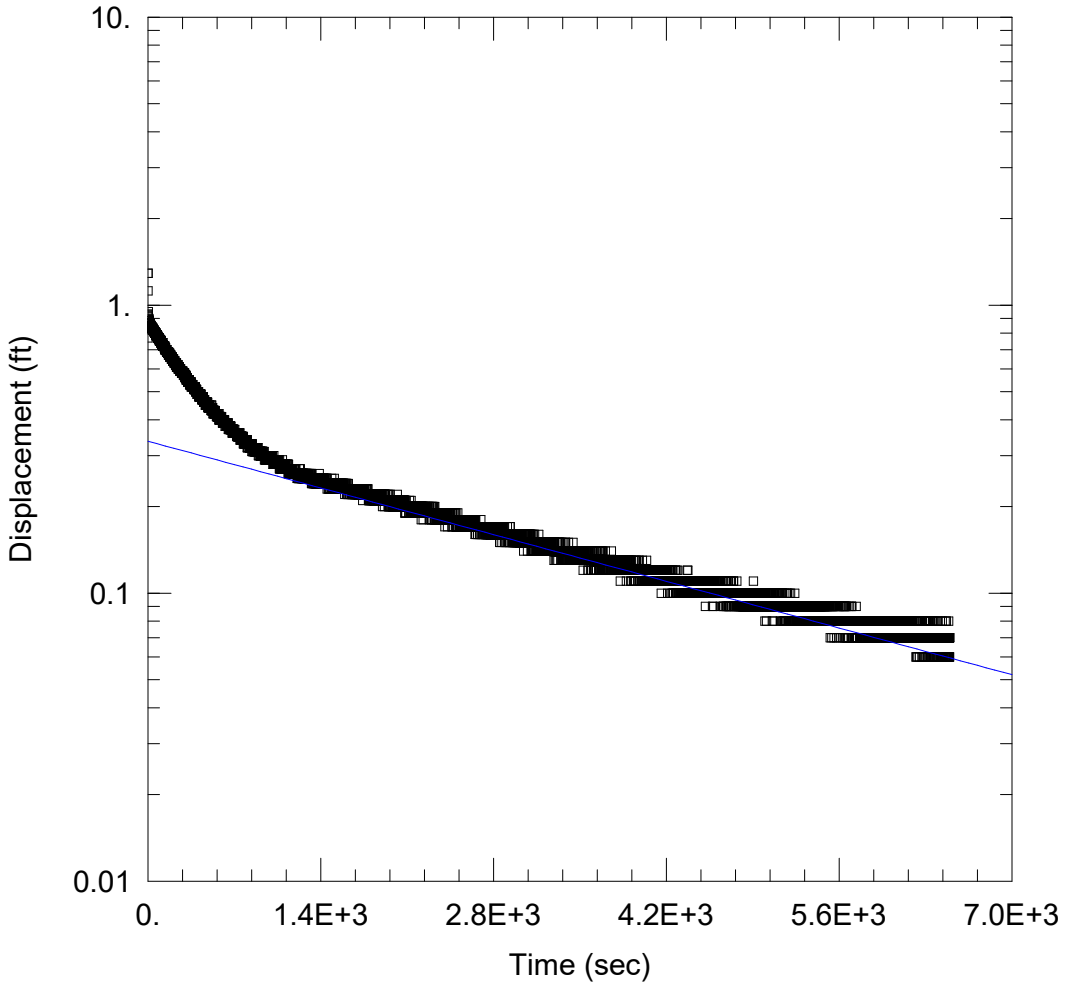
Saturated Thickness: 8.11 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-29 Rising)

Initial Displacement: 0.21 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.11 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002032 ft/sec
y0 = 0.08677 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/15/24 Time: 19:35:06

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 12.38 ft Anisotropy Ratio (Kz/Kr): 1.

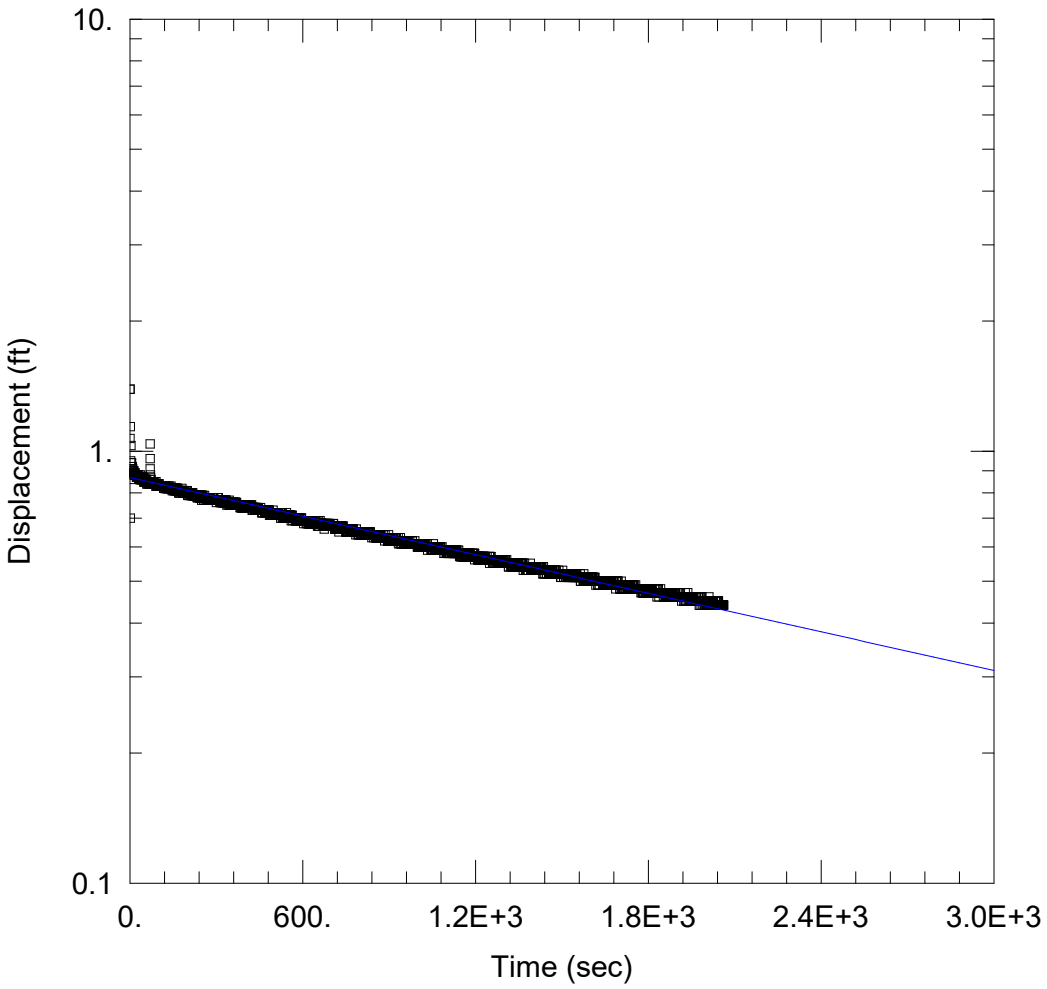
WELL DATA (MW-30 Falling)

Initial Displacement: 1.29 ft
Total Well Penetration Depth: 12.38 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.38 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.46E-7 ft/sec y0 = 0.3367 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:45:51

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 12.38 ft Anisotropy Ratio (Kz/Kr): 1.

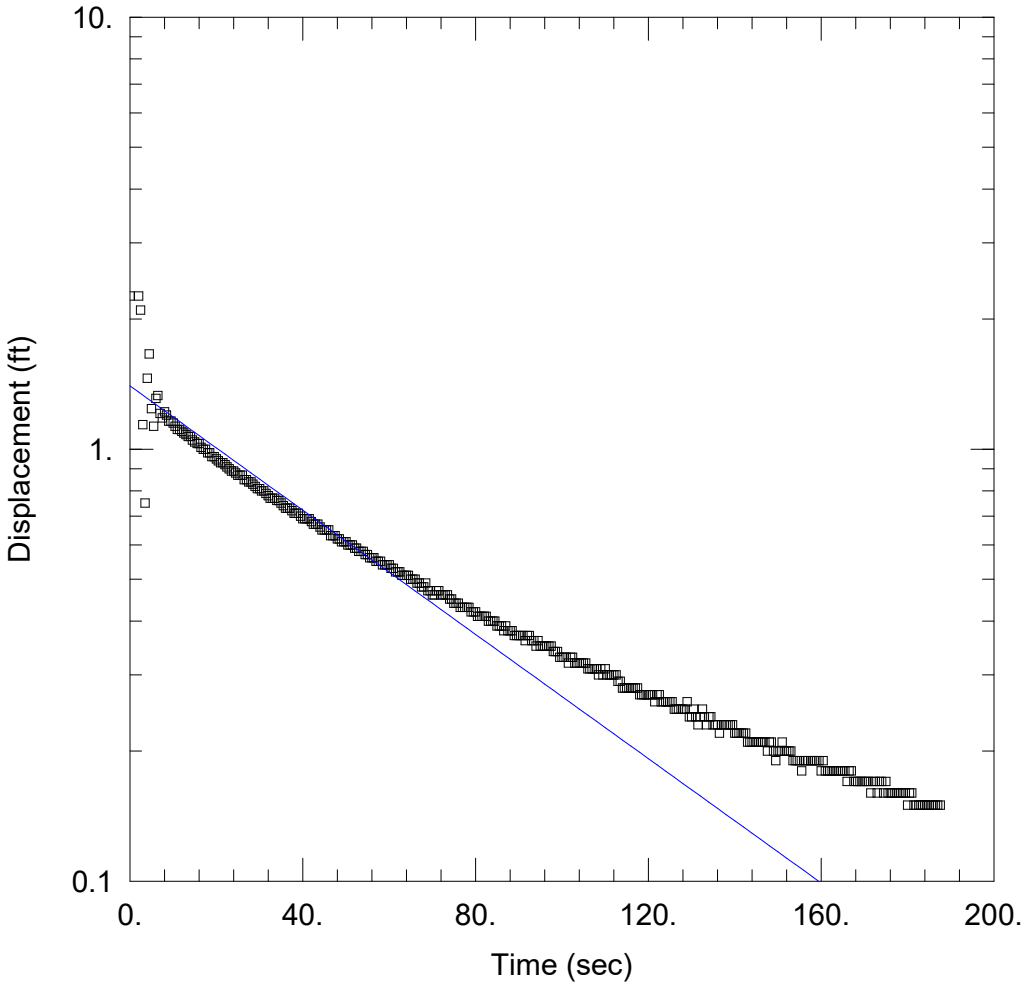
WELL DATA (MW-30 Rising)

Initial Displacement: 1.39 ft
Static Water Column Height: 12.38 ft
Total Well Penetration Depth: 12.38 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 4.449E-7 ft/sec y0 = 0.8689 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:21:47

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 15.56 ft Anisotropy Ratio (Kz/Kr): 1.

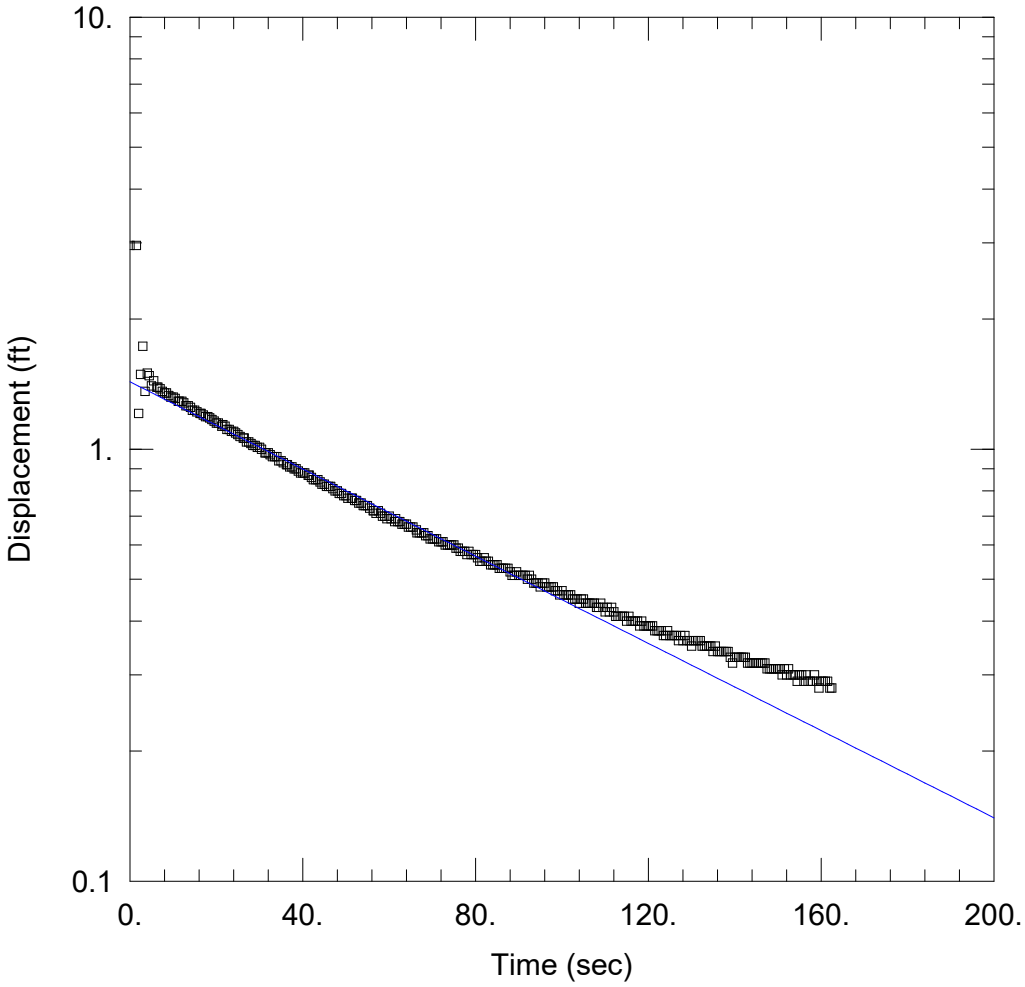
WELL DATA (MW-35 Falling)

Initial Displacement: 2.26 ft
Total Well Penetration Depth: 15.56 ft
Casing Radius: 0.083 ft
Static Water Column Height: 15.56 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.89E-5 ft/sec y0 = 1.401 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 22:49:31

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 15.56 ft Anisotropy Ratio (Kz/Kr): 1.

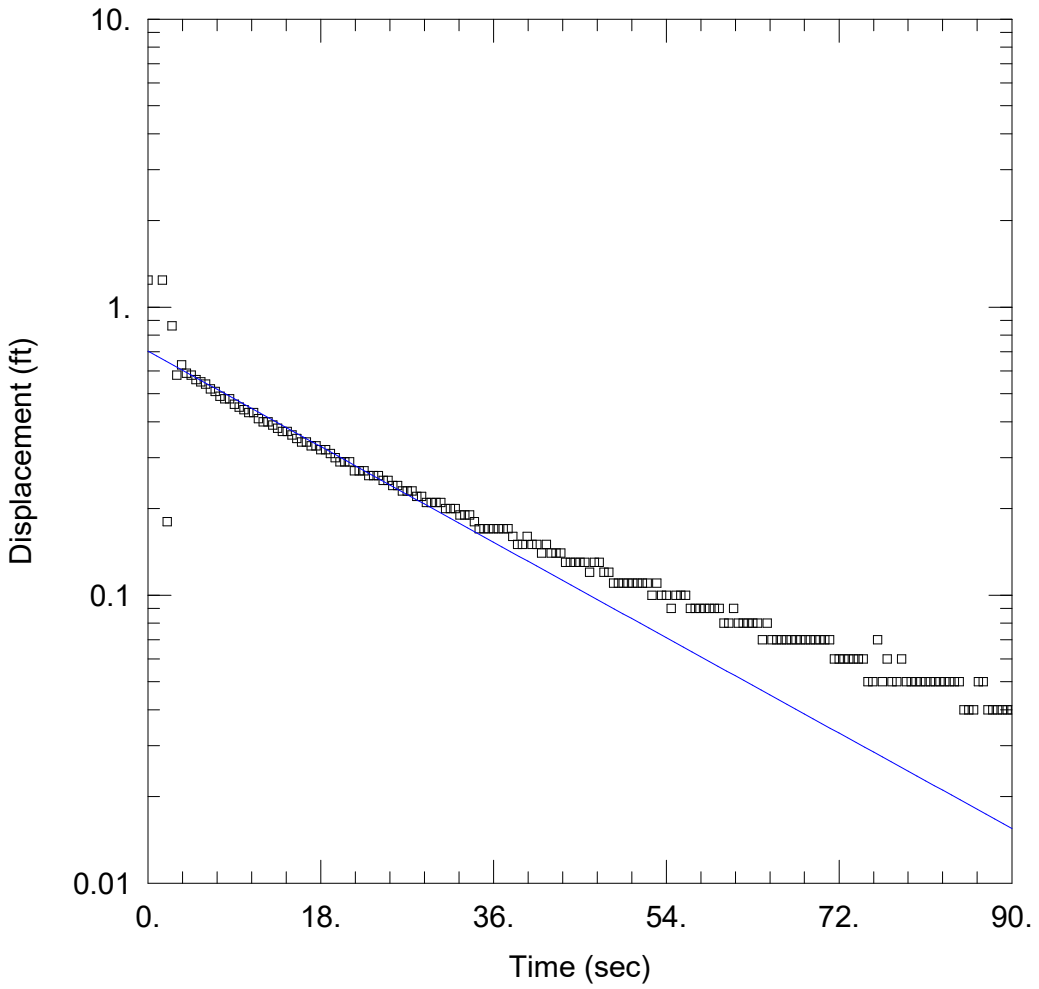
WELL DATA (MW-35 Rising)

Initial Displacement: 2.96 ft
Total Well Penetration Depth: 15.56 ft
Casing Radius: 0.083 ft
Static Water Column Height: 15.56 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.326E-5 ft/sec y0 = 1.432 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 20:33:09

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

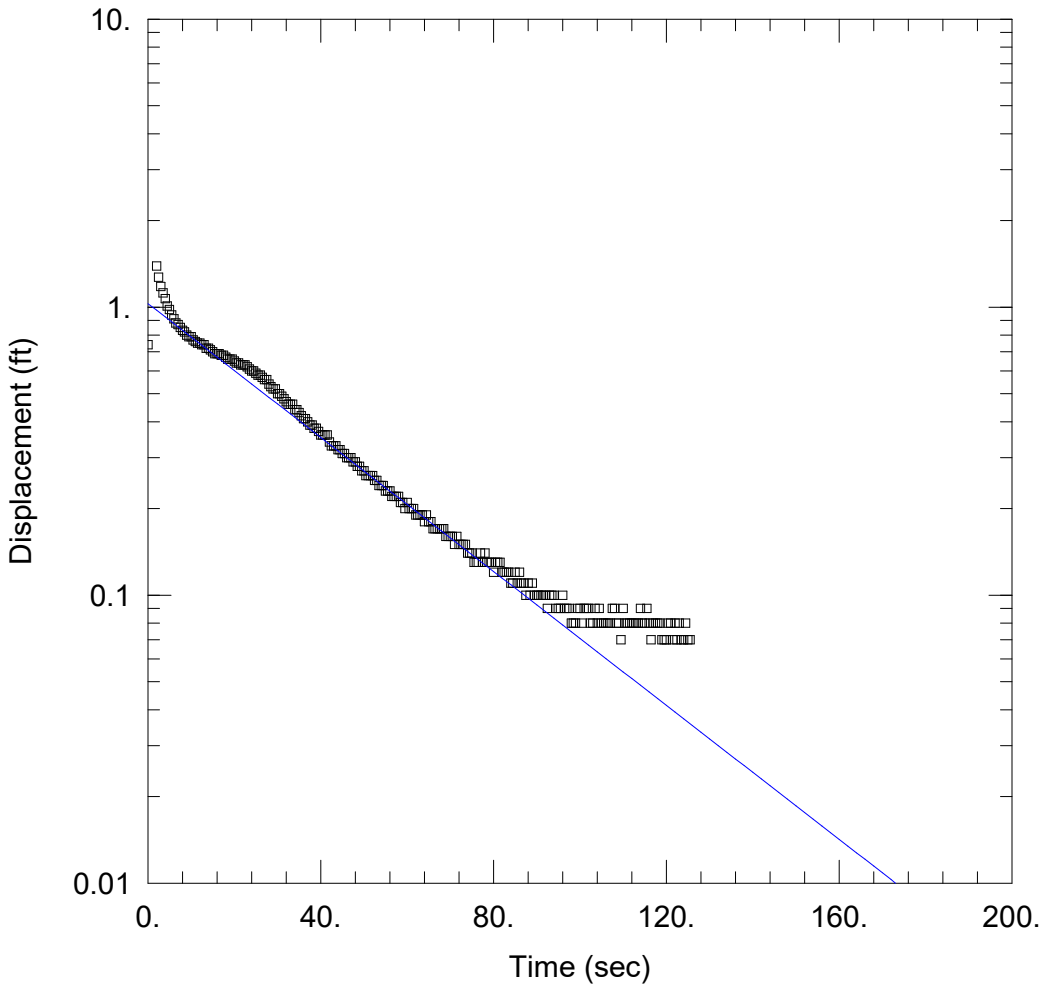
Saturated Thickness: 10.11 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-41 Falling)

Initial Displacement: 1.24 ft
Total Well Penetration Depth: 10.11 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.11 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.419E-5 ft/sec
y0 = 0.7032 ft



WELL TEST ANALYSIS

Data Set: C:\Users\millerjd\Downloads\McLouthHydraulicConductivity.aqt
Date: 05/14/24 Time: 21:54:30

PROJECT INFORMATION

Company: CDM Smith
Client: EGLE
Project: 281860
Location: Trenton, MI
Test Date: December 2023

AQUIFER DATA

Saturated Thickness: 10.11 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-41 Rising)

Initial Displacement: 0.74 ft
Total Well Penetration Depth: 10.11 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.11 ft
Screen Length: 10. ft
Well Radius: 1. ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.527E-5 ft/sec
y0 = 1.028 ft

Hydraulic Conductivity Testing

SOP 4-6
Revision: 6
Date: August 2020

Approved: Ernest Ashley **Technical Review:** John Dougherty

1.0 Objective

The objective of this technical standard operating procedure (SOP) is to define requirements for conducting and analyzing in situ hydraulic conductivity (slug) tests in small, developed wells.

2.0 Background

2.1 Definitions

Note: Definitions are often promulgated or codified in state or local statutes, regulations, or ordinances and can vary between regulatory agencies. Definitions should be verified against the definitions provided by agencies regulating the work when applicable.

Slug Testing - A rapid and easy means of estimating the hydraulic conductivity of an aquifer. If the thickness of the aquifer is known, then the transmissivity can also be determined. Slug testing is accomplished by adding (or removing/displacing) a known volume to (or from) the monitoring well to create a rapid rise (or fall) in water level. Water levels are then measured as the water level in the well returns to static (pre-test) conditions. American Society for Testing and Materials method D4044 provides an overview of slug testing (ASTM 2015). Butler (2019) is a good reference for the design and analysis of slug tests over a full range of aquifer conditions.

Slug Bar - A weighted cylinder that is used in displacing a known volume water in a well. A bailer may be used to remove water in place of a slug bar under low-recharge aquifer conditions.

Pneumatic System - A system that uses an air pump, compressor, or compressed air cylinder to increase the air pressure in the well, which is sealed with an air-tight cap that has ports through which the compressed air is introduced and a water level indicator or pressure transducer can be inserted. This displacement method is commonly employed in high transmissivity aquifers where aquifer response is rapid and it is difficult to achieve the rapid initial displacement required using a slug bar or bailer. In all cases, the rate of water level recovery is then measured using a pressure transducer and data recorder or a water level meter and stopwatch (the former method is preferable in most environments). Data, as displacement-time pairs, are then graphed and used in equations to determine hydraulic conductivity.

2.2 Associated Procedures

- SOP 1-5, *Groundwater Sampling with Bailers*
- SOP 1-6, *Water Level Measurement*
- SOP 2-6, *Handling Investigative-Derived Waste*
- SOP 4-1, *Field Logbook Content and Control*
- SOP 4-3, *Well Development and Purging*
- SOP 4-4, *Design and Installation of Monitoring Wells in Aquifers*
- SOP 4-5, *Field Equipment Decontamination at Nonradioactive Sites*

2.3 Discussion

Advantages of slug testing over pump testing include the fact that little or no contaminated water is produced requiring containment and disposal as well as that several areas can be tested in a relatively short period of time. A disadvantage of slug testing is that the resulting estimate of hydraulic conductivity is limited to a small volume of the aquifer around the tested well and care must be taken in extrapolating the results from one well to other areas or intervals of the aquifer.

If possible, when designing the field program or considering in which interval to place a well screen, try to screen only one formation type. If a well is screened across more than one formation (such as fine sand and coarse sand or overburden and bedrock) the results must be analyzed and interpreted considering the hydrogeologic context.

3.0 Responsibilities

Project Manager - The project manager is responsible for ensuring that field personnel have been trained in conducting slug tests and for ensuring that slug tests are conducted in accordance with this procedure.

Field Team Leader - The field team leader is responsible for performing slug tests in accordance with this procedure and for verifying that the data collected are adequate and of high quality. The project field geologist shall perform a field calculation to check data quality.

***Note*:** Responsibilities may vary from site to site. Therefore, all field team member responsibilities shall be defined in the field plan or site-/project-specific quality assurance plan.

4.0 Required Equipment

The following equipment shall be used when performing a rising or falling-head slug test in a monitoring well. Site-specific conditions may warrant the use of additional equipment.

- Pressure transducer and data recorder, if data are to be automatically recorded (recommended) and manufacturers' instructions
- Laptop or hand-held computer for downloading and viewing data (field printer optional)
- Water level measuring device
- Stopwatch, if measurements collected manually (not recommended)
- Slug device of known volume
- Rope or wire
- Duct tape
- Field logbook
- Decontamination equipment and supplies
- Data on the construction of the well: depth to screen, screen length, well drilled diameter, riser diameter, height of sandpack above screen and length of riser above ground surface

Note that the well construction data shall be used so that the slug test data being collected are appropriate and of acceptable quality. Additional information (e.g., distance from screen to confining layer) may be necessary to analyze the data and determine the hydraulic conductivity. Data analysis is not covered under this procedure.

The slug bar shall be constructed of plastic, such as polyvinyl chloride (PVC), or metal such as aluminum or steel (depending upon the chemical environment in the well) and have no buoyancy. For example, a standard slug is constructed with a PVC pipe filled with sand and capped at both ends. The slug bar shall be of sufficient size to cause a recommended minimum of 1 to 3 feet of displacement in a well. A slightly lesser or greater head change is acceptable so long as a sufficient response curve is recorded that can be applied in subsequent analysis. For a 2-inch diameter monitoring well, the slug bar shall be no more than 1.5 inches in diameter and a minimum of 5 feet long. For a 4-inch diameter well, the slug bar shall be no more than 3 inches in diameter and a minimum of 5 feet long. The slug bar shall be securely fastened to a nylon rope or braided metal wire.

A standard sampling or well development bailer may be used in place of the slug bar, as long as the volume of water displaced by the bailer is sufficient to change the water level in the well a minimum of 1 to 3 feet. If the bailer is to be used for a falling-head test, it shall be filled with analyte-free water so that the bailer will not have any buoyancy.

5.0 Procedures

5.1 Preparation

The following steps must be followed when preparing for slug testing:

1. Lay plastic sheeting around the wellhead. Arrange needed equipment and decontamination materials on the sheet or on a table.

2. Put on personnel protective clothing, as specified in the site-specific health and safety plan.

3. Open the protective casing locking lid and vented riser caps following the procedures outlined in SOP 1-6. Note the physical condition of the well, including damage, deterioration and signs of tampering. Note any unusual odors, sounds, or difficulties in opening the well. Record organic vapor readings with a suitable organic vapor screening device.

4. Measure and record the static water level, the depth to the bottom of the well and inside diameter of the well casing. Record these data in the appropriate logbook.

5. If using a pressure transducer and data logger (transducers with built-in data loggers are commonly used for slug tests), lower the pressure transducer into the well to a sufficient depth so that the transducer will be below the maximum depth reached by the bottom of the slug bar or other displacement device. If necessary, calibrate the transducer as specified by the manufacturer. Allow the transducer to temperature equilibrate in the well for approximately 15 minutes (or as recommended by the manufacturer) after insertion and before any calibration or test procedure to ensure that it will accurately record water level changes. Make sure that the transducer is not placed below its maximum operating depth, or it will not be able to detect any change in pressure. For example, pressure increases 1 pound per square inch (psi) per 2.3 feet of head; therefore, a 10 psi transducer will function to a depth of 23 feet below the water level in the well.

6. Secure the pressure transducer cable using a Kellems grip or similar device. The transducer cable shall lay flat along side the well riser, so that disturbance by the slug bar will be avoided.

   ***Note*:** Do not kink the transducer cable, otherwise the pressure equalization vent tube in the cable will be damaged and the transducer will not function properly.

7. Allow the water level in the well to recover to static after emplacement of the pressure transducer, before starting the test. Measure and record this water level.

8. Program the data logger to record logarithmically, with a maximum time interval of no more than 1 minute between readings. If the formation is expected to have low hydraulic conductivity, the maximum interval between readings can be set to a longer time interval, such as 10 minutes.

9. Confirm and/or set the transducer and logger parameters as recommended by the manufacturer. This task may also be performed before placing the instrument in the well.

10. Determine the distance from the top of the well riser to the water surface in the well and add 1 foot to this length. The resulting length is the amount of wire or rope needed so that the slug bar or bailer will be submerged a minimum of 1 foot when it is placed in the well. A loop shall be placed in the rope or wire at this length and a strong metal rod or wooden stick placed and secured through the loop. When inserted into the well, the slug bar shall be a distance (more than 1 foot) above the transducer to avoid disturbing the measuring device.

11. If depth readings are to be recorded manually (this procedure is not recommended but may be used in formations suspected of having low hydraulic conductivity, less than 1 foot per day), readings shall be taken every 10 seconds for the first minute of the test, every 30 seconds for the next 4 minutes and every minute until 10 minutes. Thereafter, readings shall be taken every 5 minutes for the duration of the test. If the well has not recovered within 1 hour, readings shall be taken every 0.5 hours until 6 hours and 1 hour every hour thereafter. This process will require two personnel during the first 10 minutes of the test: one to act as time keeper/data recorder and one to measure depth to water in the well.

5.2 Standard Displacement Slug Tests

5.2.1 Falling-Head Slug Test Procedure

This test can only be conducted in wells whose screens are fully submerged, otherwise, displaced water will be introduced into the unsaturated zone and recovery rates will be due to flow in both the unsaturated and saturated zones. All slug test analytical procedures assume flow in the saturated zone only. The following steps must be followed when performing falling-head slug tests:

1. Place the slug or bailer in the well until the bottom of the displacement device is no more than 6 inches to 1 foot above the water level in the well. The person holding the device shall be holding the rope or wire by the rod or stick described in Section 5.1, ninth bullet.
2. Switch on the data recorder or set the water level meter probe near the level at which water is expected to rise.
3. To start the test, the person holding the slug bar will signal the person operating the data logger or water level indicator, then rapidly lower the displacement device into the well until the stick or rod is resting horizontally on top of the well riser. The slug bar shall not be dropped, to minimize sloshing in the well. The data logger is turned on immediately prior to the slug bottom entering the water.
4. Continue recording depth-time data until the well has recovered to at least 90 percent of the static water level. When using data recorders, it is advisable to check and record the reading every few minutes to ensure that data are being properly recorded. If 90 percent recovery has not occurred within 12 hours, the test may be stopped. Field conditions and time constraints may warrant stopping the test in less than 12 hours. The final decisions under these circumstances will be the responsibility of the field team leader.
5. Record the time of test completion and file name in the logbook.
6. Review the response curve. If a sufficient response curve was not recorded (e.g., logging was not started soon enough to identify maximum water level displacement), then the test shall be repeated. If an acceptable response curve is not being recorded due to field conditions (e.g., no water level response due to high hydraulic conductivity) the project manager shall be notified and a determination on the well test shall be made.
7. Decontaminate all equipment according to SOP 4-5. Clean up the site, and close and lock the well before leaving. Contaminated plastic sheeting and disposable protective clothing shall be taken to designated disposal containers.
8. Download the data logger to a computer or to hardcopy to ensure that the data is not inadvertently lost. If the data were recorded manually, calculate the relative change in head by subtracting the recorded depths to water during recovery from the initial static depth to water reading and record the absolute value of that change, for each depth-time data pair.

Note: Both rising- and falling-head slug tests may be carried out in the same operation by first measuring the rate of water level fall immediately after slug insertion, then measuring the rate of water level rise after slug withdrawal. Be sure that the well has recovered to the static water level before conducting the rising-head test. If using a data logger, the recovery tests needs to be set up and run as a separate test.

5.2.2 Rising-Head Slug Test Procedure

The steps for a rising-head test are essentially the same as those for a falling-head test. In a well screened across the water table, a rising-head test is the only test that is valid. The following steps must be followed when performing rising- head slug tests:

1. Lower the slug bar or bailer of known volume into the well until it is fully submerged. Allow the well to re-equilibrate to static water level. In formations of suspected low hydraulic conductivity, re-equilibration may take several hours or overnight. In such cases, it is suggested that the displacement device be placed in the well at the end of a field day and the test conducted the following day.
2. Turn on the data recorder, if used, or verify that static water level has been re-established with a water level meter.
3. To start the test, the person holding the slug bar will signal the person operating the data logger or water level indicator, then rapidly and smoothly raise the displacement device from the well until the bottom of the slug bar is above the water level in the well. The data logger is turned on or manual measurements commence at the moment the slug bar is raised and before it (or any

portion of it) is removed from the water. If a data logger is being used, the slug bar wire or rope shall be secured to the well casing or riser for the duration of the test and only removed from the well after the test has been completed, to avoid disturbing or dislocating the pressure transducer.

4. Continue recording depth-time data until the well has recovered to at least 90 percent of the static water level. When using data recorders, it is advisable to check and record the reading every few minutes to ensure that data are being properly recorded. If 90 percent recovery has not occurred within 12 hours, the test may be stopped. Field conditions and time constraints may warrant stopping the test in less than 12 hours. The final decisions under these circumstances will be the responsibility of the field team leader.

5. Record the time of test completion and file name in the logbook.

6. Review the response curve. If a sufficient response curve was not recorded (e.g., logging was not started soon enough to identify maximum water level displacement), then the test shall be repeated. If an acceptable response curve is not being recorded due to field conditions (e.g., no water level response due to high hydraulic conductivity), the project manager shall be notified and a determination on the well test shall be made.

7. Decontaminate all equipment according to SOP 4-5. Clean up the site, and close and lock the well before leaving. Contaminated plastic sheeting and disposable protective clothing shall be taken to designated disposal containers.

8. Download the data logger to a computer or to hardcopy to ensure that the data is not inadvertently lost. If the data were recorded manually, calculate the relative change in head by subtracting the recorded depths to water during recovery from the initial static depth to water reading and record the absolute value of that change, for each depth-time data pair.

5.3 Pneumatic Rising-Head Tests

This test can be performed in aquifers of high hydraulic conductivity that are expected to respond very rapidly to slug displacement. It can only be performed in wells where the screen is substantially below the water table, otherwise, increased air pressure in the well casing will be able to bleed off to the unsaturated zone through the well screen and the test will not be successful.

5.3.1 Required Equipment

In addition to the required equipment outlined in Section 4.0, the following equipment shall be used when conducting a pneumatic rising-head slug test:

- Minimum 30-psi rated transducer and data logger
- Electric water level indicator with on/off switch
- Pressure-tight "tree" assembly, as described below
- Short length (6 inches) of flexible rubber hose whose inside diameter is the same as the outside diameter of the well riser
- Two 2- or 4-inch diameter hose clamps
- Compressor, air pump, or compressed air tank with hose and appropriate adapters

The pressure-tight tree assembly is a device placed on the top of the well that will accomplish the following:

- Form a pressure-tight seal between the well and the atmosphere
- Allow the injection of compressed air into the well via an air hose connected to the pump, compressor, or air supply
- Provide a pressure-tight passage for a pressure transducer cable and a water level meter
- Allow for rapid well depressurization

The tree is illustrated in Figure 1. If the top of the riser is threaded, the device may be screwed onto the riser if the threads are compatible (Teflon™ tape shall be used to ensure a good seal). If the threaded end of the riser has been cut off, a slip coupling will

need to be placed over the base of the tree and the top of the riser. A small length of flexible rubber hose the same inside diameter as the outside diameter of the coupling will need to be slipped over the coupling and secured in place with tightly closed hose clamps to form a pressure-tight seal between the riser and the well.

The simplest method for providing access through the tree for the pressure transducer cable indicator is to use a modified standard large diameter black rubber cork. A hole that is the same diameter as the cable shall be drilled through the cork's axis and a vertical slit shall be cut radially from the hole to an edge of the cork. The pressure transducer cable shall be threaded through the hole and the water level indicator tape shall be placed flat in the slit. The cork shall be firmly placed in the top of the tree to form a pressure-tight seal. To ensure that the cork does not pop out while the well is under pressure, it can be secured in place with duct tape or a friction fit plastic cap placed over the cork and onto the tree.

The tree will have a standard ball valve with an inside valve orifice diameter no less than the diameter of the well riser as shown in Figure 1. In addition, a pressure-tight coupling (swage-loc, quick-connect, or Schrader valve) will be attached to the side of the tree to act as a compressed air inlet.

5.3.2 Preparation

Preparation procedures for the pneumatic test are similar to those for the standard slug bar displacement test, with the exception that an electronic data logger is a necessity for this procedure.

5.3.3 Pneumatic Slug Test Procedure

1. Install the test tree to the top of the well, using a method appropriate to the type of riser present (threaded or unthreaded). Make sure that the seal to the riser top is pressure-tight.

2. Lower the pressure transducer into the well through the top of the tree to a minimum of 10 feet below the water table. The pressure transducer shall be rated no less than 30 psi. Allow the transducer to equilibrate at least 15 minutes before initiating any calibration or test procedure.

3. Turn on and insert a water level indicator into the well to approximately 5 feet depth below the water table. Turn off the indicator.

4. Secure the water level indicator and pressure transducer to the test tree using the rubber cork described in Section 5.3.1. Insert the transducer cable into the hole in the rubber cork via the slit and place the water level indicator tape flat in the slit. Place the cork firmly in the top of the tree so that no gaps are left in the cork. Place small strips of duct tape over the assembly to ensure that the seal is airtight and that the cork cannot loosen when the well is pressurized.

   ***Note*:** During this procedure, do not kink the transducer cable or the pressure equalization vent tube in the cable will be damaged and the transducer will not function.

5. Connect the pressure transducer to the data logger and calibrate the system according to manufacturer's instructions. Set the data logger to record logarithmically with a maximum recording interval of no more than 1 minute. Set the logger to record relative change in head only.

6. Connect the air hose to the compressed air supply, pump, or compressor and to the tree. Make sure the ball valve is securely closed.

7. Turn on the water level indicator and start feeding compressed air to the well. When the water level in the well has been depressed sufficiently, the water level indicator submergence tone will stop sounding. The pressure required shall be no more than 2 or 3 pounds over atmospheric pressure.

8. Simultaneously open the ball valve and activate the data logger. Open the ball valve quickly so that the pressure is released at once.

9. In highly permeable aquifers, the water level shall recover to pre-test water levels within a few seconds. Full recovery shall be accomplished in no more than 1 minute. In any event, do not stop the test until a minimum of 90 percent recovery can be confirmed with the data logger.

10. Review the response curve. If a sufficient response curve was not recorded (e.g., logging was not started soon enough to identify maximum water level displacement), then the test shall be repeated. If an acceptable response curve is not being recorded due to field conditions (e.g., no water level response due to high hydraulic conductivity) the project manager shall be notified and a determination on the well test shall be made.

11. Record the time of test completion and file name in the logbook.

12. Decontaminate all equipment according to SOP 4-5. Clean up the site, and close and lock the well before leaving. Contaminated plastic sheeting and disposable protective clothing shall be taken to designated disposal containers.
13. Download the data logger to a computer or to hardcopy to ensure that the data is not inadvertently lost.

5.4 Considerations For Subsequent Groundwater Sampling

Groundwater samples are often collected for chemical analyses after slug testing of monitoring wells. Therefore, it is very important to avoid introducing anything into the well that might impacts subsequent analyses. It is especially important to consider field equipment material at sites that will be sampled for per- and polyfluoroalkyl substances (PFAS). Development of awareness in PFAS guidance and incorporation into specific SOPs is necessary because cross-contamination is a prominent concern for data quality, particularly with PFAS action levels in the low parts per trillion (ppt) range. Procedural or equipment modifications to field activities may be required when sampling for PFAS analysis will occur.

Avoid

- **Polytetrafluoroethylene (PTFE/Teflon®), low density polyethylene (LDPE)**, sticky notes, waterproof field book, aluminum foil
- Consult materials checklists for equipment concerns

A check list containing common materials and sampling equipment that may contain PFAS compounds is attached and also can be found here:

https://www.yammer.com/cdmsmith.com/#/files/214861635584

6.0 Data Reduction and Analysis Procedures

6.1 General

The following slug test data reduction procedure and report is recommended.

- All raw data shall be printed out and listed as an appendix to the analysis report.

- All data shall be plotted using the graphing method of the accepted analytical solution. These plots shall be included as an appendix to the analysis report.

- All well geometry data shall be tabulated and included in the analysis report. Most of these data must be known before the start of testing, except for items related to the water level in the well at the time of testing. The purpose of this tabulation is to ensure consistent calculation of all variables required in the data analysis, make input into a data analysis computer program an easier

task, and to make technical review of the analyses and input values easier. This table shall include the following items for each tested well or piezometer (the list of items may vary depending on the analytical method employed):

- Well ground surface elevation
- Well reference elevation (i.e., top of riser)
- Depth to static water level at start of test
- Elevation of static water level at start of test
- Depth to top of screen or open interval from ground surface or top of casing
- Depth to bottom of screen or open interval from ground surface or top of casing
- Elevation of top of screen or open interval
- Elevation of bottom of screen or open interval
- Depth to base of aquifer (if available)
- Elevation of base of aquifer (if available)
- Aquifer saturated thickness
- Depth to top of screen or open interval relative to the top of the aquifer
- Depth to bottom of screen or open interval relative to the top of the aquifer
- Length of saturated well screen
- Length of saturated riser
- Diameter of well riser and screen (or open interval)
- Diameter of borehole
- Grain-size of filter pack

- The report shall include a detailed description of the data collection procedures and test methods.

- The report shall include a detailed listing of all analysis results.

- When reviewing the data for analysis, note that if the water level recovered to the static level (or close to it) before the test was stopped, only the data before 100 percent recovery shall be included in the data plot. Plotting 100 minutes of data when the recovery occurred rapidly (e.g., 30 seconds or 2 minutes) will make analysis of the actual response very difficult and often lead to a substantial underestimate of the formation hydraulic conductivity. Raw data plots shall also be examined for evidence of sloshing of the water level in the well caused by insertion or removal of the slug bar. In most cases, these early data points can also be removed from the data set and time values reset to the new starting point represented by the remaining data. This evaluation is shown on Figure 2. The data may also be removed using common software packages developed for analyzing slug tests.

6.2 Review and Analysis of Data

Slug test response generally falls into three categories illustrated on Figure 3. Overdamped or normal response occurs where the well recovers to static level without exceeding that level. Critically damped response occurs where the well recovers to static level and the water level flows above (rising-head test) or below (falling-head test) then recovers to static in a sinusoidal manner within one cycle, as shown in Figure 3. The third category is underdamped harmonic oscillatory response, where the water level in the well oscillates around the static water level as a sine wave of decreasing amplitude.

Slug test data are recommended to be analyzed with computer software; however, data may also be analyzed manually. The groundwater modeling tool kit contains Aquifer^{WIN32} (ESI International), which is a program that may be used for analyzing slug test data. Other programs are also available (e.g. AQTESOLV®). Software packages are useful since they can be used to manage a significant amount of data in short time periods and contain many different confined and unconfined slug test solutions. The trained user can use these benefits to generate detailed response curve graphs, precise hydraulic conductivity values, and insights into the hydrogeologic framework near the well. Regardless of the analytical method employed or whether the data is analyzed manually or by computer, the analyst shall review the original technical paper or textbook summary of the method to understand the mechanics and assumptions underlying the method before attempting any analysis.

Slug test data analyses and hydraulic conductivity calculations shall be performed by an experienced professional. Data analysis and parameter calculations are beyond the scope of this SOP and, therefore, are not discussed here.

7.0 Restrictions and Limitations

In wells in which the static water level and water levels induced during testing are above the top of the screened or open hole interval, both rising-head and falling-head tests shall be conducted to provide a redundancy check of results. However, in most cases,

rising-head tests provide more consistent data, less subject to sloshing of the water level due to displacement by the slug bar than is often observed in falling-head tests. Falling-head slug tests are invalid in wells where the static water level is at or below the top of the screened or open-hole interval.

Regardless of which testing method is used, it is recommended that the hydraulic conductivity testing be performed three times in each well, if time constraints such as recovery time or the project schedule will allow multiple tests. Varying the displacement (different slugs or pneumatic displacement) by a foot or so, will also provide additional useful data. The purpose of multiple testing is to demonstrate the precision of the test results. Ideally, the test results will be similar, which results in an increased level of confidence in the data. In addition, if one of the data sets is bad, there is additional data available for analysis.

8.0 References

American Society for Testing and Materials. 2015 *Standard Test Method (Field Procedure) for Instantaneous Change in Head (Slug) Tests for Determining Hydraulic Properties of Aquifers.* D4044 – 15

Butler, James. 2019. The Design, Performance, and Analysis of Slug Tests (2nd Edition). Lewis Publishers.

ESI International, see their website, http://esinternational.com, for current information on Aquifer^{win32}

Figure 1
Pneumatic Slug Test "Tree" Schematic

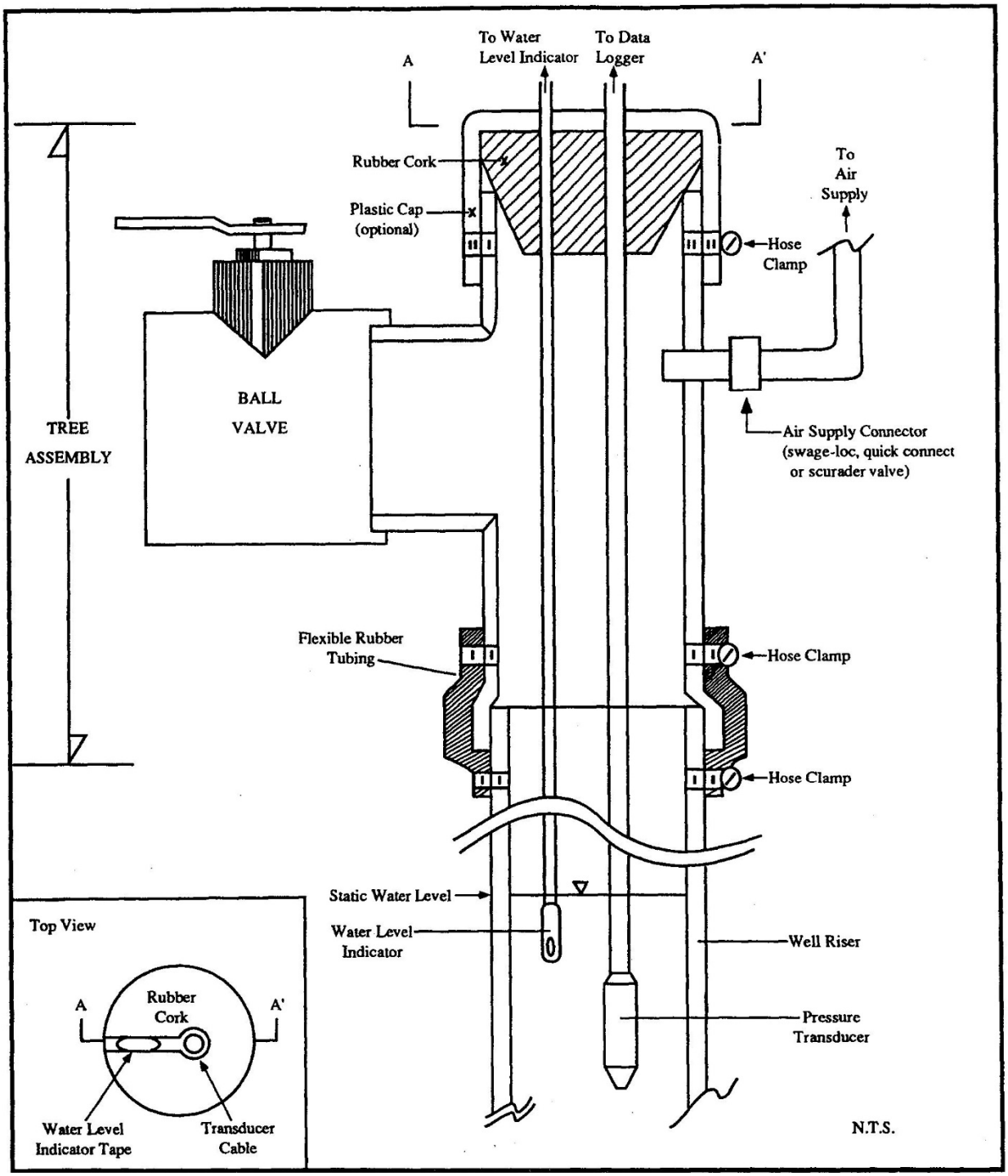
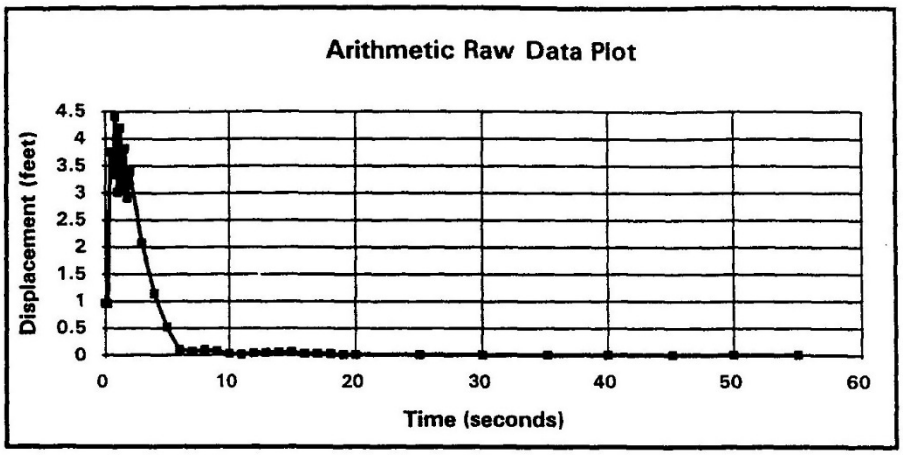
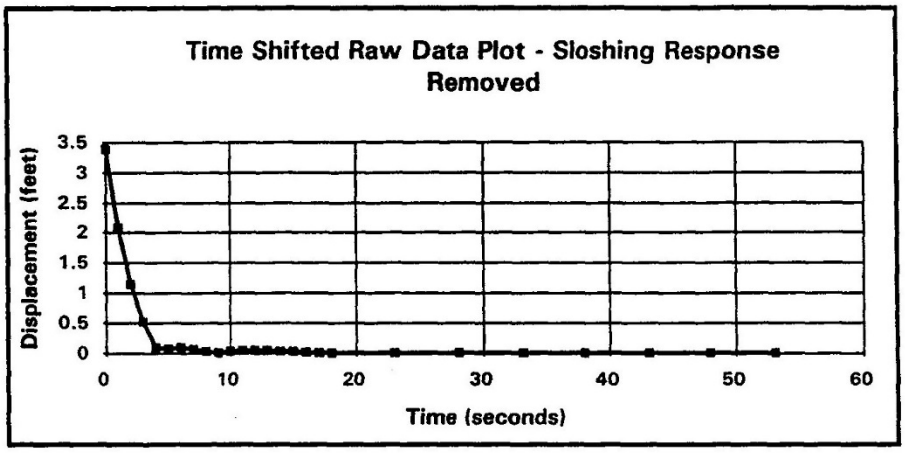


Figure 2
Deletion of Nonessential Data





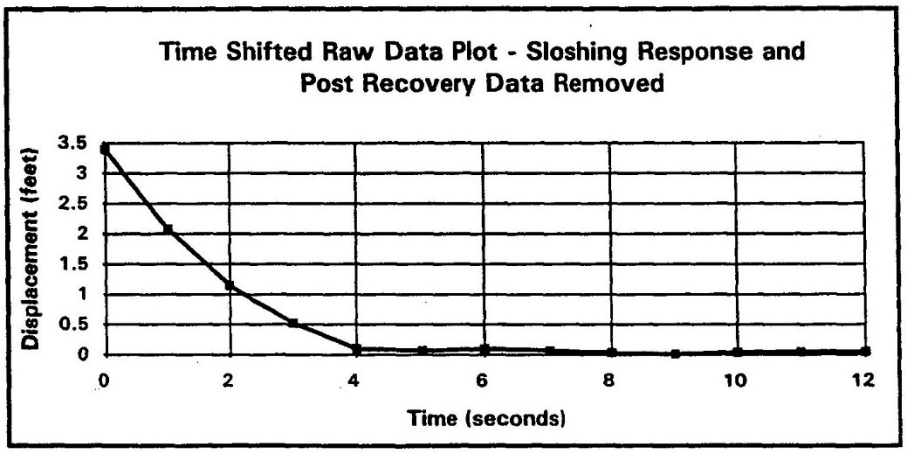
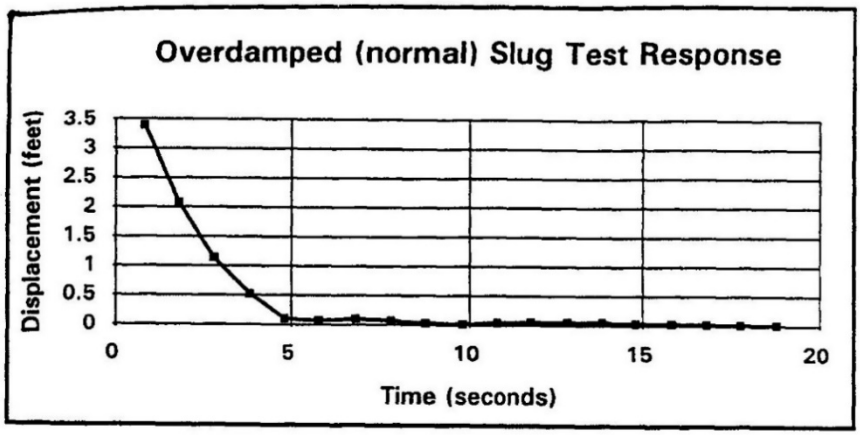
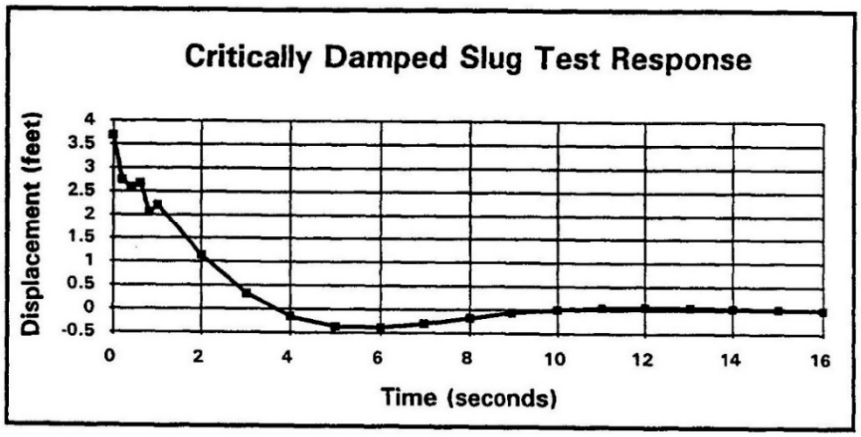


Figure 3
Typical Slug Test Responses





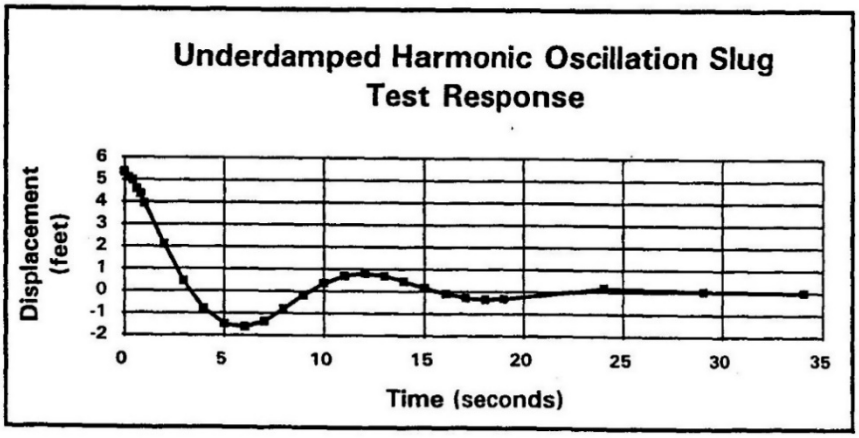


TABLE 8
SUMMARY OF AQTESOLV INPUT PARAMETERS
McLouth Steel Superfund Site
Trenton, Michigan

Well ID	DTW from top of PVC (Static)	DTB from top of PVC	PVC Diff from GS	DTW from GS	DTB from GS	Static Water Column Height	Top of Screen from GS	Bottom of Screen from GS	Sat Thickness Aquifer	Depth to Top of Well Screen from Static	Inside Radius of Well Casing	Radius of Well including filter pack	Screen Length
RI-MW-11 Falling Head Test	7.80	19.16	2.85	4.95	16.31	11.36	6.31	16.31	11.36	1.36	0.083	0.334	10
RI-MW-11 Rising Head Test	7.80	19.16	2.85	4.95	16.31	11.36	6.31	16.31	11.36	1.36	0.083	0.334	10
RI-MW-41 Falling Head Test	10.10	20.21	2.62	7.48	17.59	10.11	7.59	17.59	10.11	0.11	0.083	0.334	10
RI-MW-41 Rising Head Test	10.10	20.21	2.62	7.48	17.59	10.11	7.59	17.59	10.11	0.11	0.083	0.334	10
RI-MW-17 Falling Head Test	13.62	22.96	3.07	10.55	19.89	9.34	9.89	19.89	9.34	0.00	0.083	0.334	10
RI-MW-17 Rising Head Test	13.62	22.96	3.07	10.55	19.89	9.34	9.89	19.89	9.34	0.00	0.083	0.334	10
RI-MW-19 Rising Head Test	11.56	30.37	3.10	8.46	27.27	18.81	17.27	27.27	18.81	8.81	0.083	0.334	10
RI-MW-02 Falling Head Test	7.03	12.45	3.02	4.01	9.43	5.42	4.43	9.43	5.42	0.42	0.083	0.334	5
RI-MW-02 Rising Head Test	7.03	12.45	3.02	4.01	9.43	5.42	4.43	9.43	5.42	0.42	0.083	0.334	5
RI-MW-23 Falling Head Test	13.90	22.13	2.90	11.00	19.23	8.23	9.23	19.23	8.23	0.00	0.083	0.334	10
RI-MW-23 Rising Head Test	13.90	22.13	2.90	11.00	19.23	8.23	9.23	19.23	8.23	0.00	0.083	0.334	10
RI-MW-25 Falling Head Test	13.32	24.58	2.08	11.24	22.5	11.26	12.50	22.50	11.26	1.26	0.083	0.334	10
RI-MW-25 Rising Head Test	13.32	24.58	2.08	11.24	22.5	11.26	12.50	22.50	11.26	1.26	0.083	0.334	10
RI-MW-27 Falling Head Test	15.57	29.10	2.96	12.61	26.14	13.53	16.14	26.14	13.53	3.53	0.083	0.334	10
RI-MW-27 Rising Head Test	15.57	29.10	2.96	12.61	26.14	13.53	16.14	26.14	13.53	3.53	0.083	0.334	10
RI-MW-29 Falling Head Test	11.39	19.50	2.95	8.44	16.55	8.11	6.55	16.55	8.11	0.00	0.083	0.334	10
RI-MW-29 Rising Head Test	11.39	19.50	2.95	8.44	16.55	8.11	6.55	16.55	8.11	0.00	0.083	0.334	10
RI-MW-30 Falling Head Test	7.82	20.20	-0.36	8.18	20.56	12.38	10.56	20.56	12.38	2.38	0.083	0.334	10
RI-MW-30 Rising Head Test	7.82	20.20	-0.36	8.18	20.56	12.38	10.56	20.56	12.38	2.38	0.083	0.334	10
RI-MW-35 Falling Head Test	7.72	23.28	2.98	4.74	20.3	15.56	10.30	20.30	15.56	5.56	0.083	0.334	10
RI-MW-35 Rising Head Test	7.72	23.28	2.98	4.74	20.3	15.56	10.30	20.30	15.56	5.56	0.083	0.334	10
RI-MW-08 Falling Head Test	8.39	23.21	3.04	5.35	20.17	14.82	10.17	20.17	14.82	4.82	0.083	0.334	10
RI-MW-08 Rising Head Test	8.39	23.21	3.04	5.35	20.17	14.82	10.17	20.17	14.82	4.82	0.083	0.334	10

All units measured in feet unless otherwise noted
GS = Ground Surface
Aquifer Anistropy Ratio: Kv = 0.2 ft/day Kh = 2.0 ft/day

Well ID	Initial Displacement (feet)
RI-MW-11 Falling Head Test	1.950
RI-MW-11 Rising Head Test	2.170
RI-MW-41 Falling Head Test	1.240
RI-MW-41 Rising Head Test	0.740
RI-MW-17 Falling Head Test	1.700
RI-MW-19 Falling Head Test	P
RI-MW-19 Rising Head Test	1.440
RI-MW-02 Falling Head Test	1.800
RI-MW-02 Rising Head Test	1.320
RI-MW-23 Falling Head Test	2.200
RI-MW-23 Rising Head Test	3.100
RI-MW-25 Falling Head Test	2.980
RI-MW-25 Rising Head Test	2.570
RI-MW-27 Falling Head Test	1.150
RI-MW-27 Rising Head Test	0.960
RI-MW-29 Falling Head Test	0.210
RI-MW-29 Rising Head Test	0.210
RI-MW-30 Falling Head Test	1.290
RI-MW-30 Rising Head Test	1.390
RI-MW-35 Falling Head Test	2.260
RI-MW-35 Rising Head Test	2.960
RI-MW-08 Falling Head Test	2.570
RI-MW-08 Rising Head Test	2.300

TABLE 9
SUMMARY OF HYDRAULIC CONDUCTIVITY
McLouth Steel Superfund Site
Trenton, Michigan

WELL IDENTIFICATION	SCREENED INTERVAL		HYDRAULIC CONDUCTIVITY (ft/sec)		HYDRAULIC CONDUCTIVITY (ft/day)		HYDRAULIC CONDUCTIVITY (cm/sec)		HYDRAULIC CONDUCTIVITY (m/sec)	
	DEPTH FEET (BGS)	STRATA (USCS)	FALLING	RISING	FALLING	RISING	FALLING	RISING	FALLING	RISING
RI-MW-2	4.43-9.43	(SP-CH) Fill overlying fat clay.	3.19E-05	2.31E-05	2.75E+00	2.00E+00	9.71E-04	7.05E-04	9.71E-06	7.05E-06
RI-MW-8	10.17-20.17	(SW-SM) Fill	2.96E-05	2.24E-05	2.55E+00	1.93E+00	9.01E-04	6.82E-04	9.01E-06	6.82E-06
RI-MW-11	6.31-16.31	(SM) Fill	2.07E-06	1.30E-06	1.79E-01	1.12E-01	6.32E-05	3.95E-05	6.32E-07	3.95E-07
RI-MW-41	7.59-17.59	(SP-SM) Fill	2.42E-05	1.53E-05	2.09E+00	1.32E+00	7.37E-04	4.65E-04	7.37E-06	4.65E-06
RI-MW-17	9.89-19.89	(SP) Fill	1.44E-05	6.95E-06	1.25E+00	6.01E-01	4.39E-04	2.12E-04	4.39E-06	2.12E-06
RI-MW-19	17.27-27.27	(SP-SM) Fill	-	1.78E-05	-	1.53E+00	-	5.41E-04	-	5.41E-06
RI-MW-23	9.23-19.23	(SP-SC) Fill	4.68E-06	4.35E-06	4.04E-01	3.75E-01	1.43E-04	1.32E-04	1.43E-06	1.32E-06
RI-MW-25	12.5-22.5	(SP-SM) Fill	6.95E-05	9.82E-05	6.00E+00	8.48E+00	2.12E-03	2.99E-03	2.12E-05	2.99E-05
RI-MW-27	16.14-26.14	(SM) Fill	4.98E-05	5.10E-05	4.30E+00	4.40E+00	1.52E-03	1.55E-03	1.52E-05	1.55E-05
RI-MW-29	6.55-16.55	(SC) Fill, with gravel	2.79E-04	2.03E-04	2.41E+01	1.76E+01	8.51E-03	6.19E-03	8.51E-05	6.19E-05
RI-MW-30	10.56-20.56	(ML-SM) Fill	3.46E-07	4.45E-07	2.99E-02	3.84E-02	1.05E-05	1.36E-05	1.05E-07	1.36E-07
RI-MW-35	10.3-20.3	(SP-SM)Fill	1.89E-05	1.33E-05	1.63E+00	1.15E+00	5.76E-04	4.04E-04	5.76E-06	4.04E-06

Unconsolidated Sedimentary Materials (from Domenico and Scwartz 1990[1], accessed from Aqtesolv[2])

Material	Hydraulic Conductivity (m/sec)
Gravel	3×10^{-4} to 3×10^{-2}
Medium sand	9×10^{-7} to 5×10^{-4}
Fine sand	2×10^{-7} to 2×10^{-4}
Silt, loess	1×10^{-9} to 2×10^{-5}
Till	1×10^{-12} to 2×10^{-6}
Clay	1×10^{-11} to 4.7×10^{-9}
Unweathered marine clay	8×10^{-13} to 2×10^{-9}

NOTES:
- BGS: Below ground surface
All wells constructed using 2-inch Schedule 40 PVC Riser and 2-inch (.01 inch) Slot Schedule 40 PVC Screen
- Slug Testing completed in December 2023
- Hydraulic conductivity calculated via Bouwer-Rice method in AQTESOLV PRO 4.5
- USCS: Unified Soil Classification System

- 1. Domenico, P.A. and F.W. Schwartz, 1990. *Physical and Chemical Hydrogeology* , John Wiley & Sons, New York, 824 p.

- 2. http://www.aqtesolv.com/aquifer-tests/aquifer_properties.htm

Attachment D

Year 2 Proposed Soil Boring/Monitoring Well Location Rationale Summary

CDM Smith

Table 10
Year 2 Proposed Soil Boring/Monitoring Well Location Rationale Summary
Trenton, Michigan

Location Number	Soil Location/MW Location		Location	Location Reference	Rationale
1	RI-SB-43	RI-MW-43	Northwest	Along W. Jefferson Ave; between RI-MW/SB-05 & RI-MW/SB-42	To close a potential data gap along the western boundary of the site. Additional data would support further delineation of geology, lithology, and contaminants of potential concern (COPC) distributions.
2	RI-SB-44	RI-MW-44	Northwest	Along W. Jefferson Ave; between RI-MW/SB-05 & RI-MW/SB-42	To close a potential data gap along the western boundary of the site. Additional data would support further delineation of geology, lithology, and COPC distributions.
3	RI-SB-45	RI-MW-45	Northwest	Along W. Jefferson Ave; between RI-MW/SB-05 & RI-MW/SB-42	To close a potential data gap along the western boundary of the site. Additional data would support further delineation of geology, lithology, and COPC distributions.
4	RI-SB-46	RI-MW-46	North Central	Northwest of RI-MW/SB-22 & southwest of RI-MW/SB-23	To close a potential data gap within the north central portion of the site. Nearby Year 1 sample locations RI-MW/SB-41, RI-MW/SB-23, and RI-MW/SB-05 indicated elevated concentrations of multiple COPCs.
5	RI-SB-47	RI-MW-47	North Central	Northeast of RI-MW/SB-22 & southeast of RI-MW/SB-23	To close a potential data gap within north central portion of the site. Nearby Year 1 sample locations RI-MW/SB-41, RI-MW/SB-23, and RI-MW/SB-05 indicated elevated concentrations of multiple COPCs.
6	RI-SB-48	RI-MW-48	Northeast	North of RI-MW/SB-22 & southeast of RI-MW/SB-23	This location would close a potential data gap within the northeastern portion of the site. Nearby Year 1 sample locations RI-MW/SB-41, RI-MW/SB-23, and RI-MW/SB-05 indicated elevated concentrations of multiple COPCs.
7	RI-SB-49	RI-MW-49	Northeast	South of RI-MW/SB-22 & north of RI-MW/SB-21	To close a potential data gap within northeastern portion of the site. Nearby Year 1 sample locations RI-MW/SB-41, RI-MW/SB-23, and RI-MW/SB-05 indicated elevated concentrations of multiple COPCs.
8	RI-SB-50	RI-MW-50	North Central	South of RI-MW/SB-41 & north of RI-MW/SB-13	To close a potential data gap within north central portion of the site. Nearby Year 1 sample locations RI-MW/SB-41, RI-MW/SB-23, RI-MW/SB-13, and RI-MW/SB-05 indicated elevated concentrations of multiple COPCs.
9	RI-SB-51	RI-MW-51	Northeast	Northwest of MW-N144 & southwest of RI-MW/SB-21	To close a potential data gap within the northeastern portion of the site. Elevated concentrations of PFAS compounds were detected in nearby Year 1 sample locations.
10	RI-SB-52	RI-MW-52	Northwest	West of RI-MW/SB-13	To close a potential data gap within the northwestern portion of the site. Additional investigation in this area would provide insight on potential preferential flow path of groundwater.
11	RI-SB-53	RI-MW-53	West Central	West of RI-MW/SB-12 & north of RI-MW/SB-29	To close a potential data gap within the west central portion of the site. Additional investigation in this area would provide insight on contaminant distribution.
12	RI-SB-54	RI-MW-54	West	North of RI-MW/SB-3 & south of RI-MW/SB-4	To close a potential data gap along the western boundary of the site. Nearby Year 1 sample locations have indicated elevated levels of COPCs - further investigation would provide insight on contaminant distribution.
13	RI-SB-55	RI-MW-55	East Central	East of MW-N106 & south of RI-MW/SB-29	To close a potential data gap within the central eastern portion of the site. Nearby Year 1 sample locations have indicated a thinner clay layer than the rest of the site. Additional investigations would provide more data to delineate lithologic strata and preferential pathways.
14	RI-SB-56	RI-MW-56	West	North of RI-MW/SB-2 & south of RI-MW/SB-3	To close a potential data gap along the western boundary of the site. Nearby Year 1 sample locations have indicated elevated levels of COPCs and further investigation would provide insight on contaminant distribution.
15	RI-SB-57	RI-MW-57	South Central	North of MW-N136 & south of RI-MW/SB-18	To close a potential data gap along the western boundary of the site. Nearby Year 1 sample locations have indicated elevated levels of COPCs and further investigation would provide insight on contaminant distribution.
16	RI-SB-58	RI-MW-58	Southeast	Northeast of RI-MW/SB-25 & south of RI-MW/SB-26	Year 1 sample locations RI-MW/SB-16, RI-MW/SB-25, and RI-MW/SB-32 yielded elevated levels of multiple COPCs. This location would provide additional insight on whether elevated COPC levels observed in RI-MW/SB-16, RI-MW/SB-25, and RI-MW/SB-32 extends northward.

Table 10
Year 2 Proposed Soil Boring/Monitoring Well Location Rationale Summary
Trenton, Michigan

Location Number	Soil Location/MW Location		Location	Location Reference	Rationale
17	RI-SB-59 & RI-SB-60	RI-MW-59 & RI-MW-60	East	(Cluster: 2 Borings & Wells) along Trenton Channel Shoreline; adjacent to EGLE controlled site	To provide shallow and deep groundwater quality, vertical gradient and groundwater and surface water interface information. Geotechnical data to be collected.
18	RI-SB-61 & RI-SB-62	RI-MW-61 & RI-MW-62	East	(Cluster: 2 Borings & Wells) along Trenton Channel Shoreline; south of MW-N119	To provide shallow and deep groundwater quality, vertical gradient and groundwater and surface water interface information. Geotechnical data to be collected.
19	RI-SB-63 & RI-SB-64	RI-MW-63 & RI-MW-64	East	(Cluster: 2 Borings & Wells) along Trenton Channel Shoreline; north of MW-N115	To provide shallow and deep groundwater quality, vertical gradient and groundwater and surface water interface information. Geotechnical data to be collected.
20	RI-SB-65 & RI-SB-66	RI-MW-65 & RI-MW-66	Southeast	(Cluster: 2 Borings & Wells) along Trenton Channel Shoreline; north of RI-MW/SB-31	To provide shallow and deep groundwater quality, vertical gradient and groundwater and surface water interface information. Geotechnical data to be collected.
21	RI-SB-67	-	West	Vicinity of RI-MW/SB-3	To provide additional insight on geologic, lithologic, and COPC conditions surrounding RI-MW/SB-3.
22	RI-SB-68	-	West	Vicinity of RI-MW/SB-3	To provide additional insight on geologic, lithologic, and COPC conditions surrounding RI-MW/SB-3.
23	RI-SB-69	-	West	Vicinity of RI-MW/SB-3	To provide additional insight on geologic, lithologic, and COPC conditions surrounding RI-MW/SB-3.
24	RI-SB-70	-	South Central	East of RI-MW/SB-16	Location proximate to RI-MW/SB-16 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
25	RI-SB-71	-	South Central	East of RI-MW/SB-16	Location proximate to RI-MW/SB-16 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
26	RI-SB-72	-	South Central	East of RI-MW/SB-16	Location proximate to RI-MW/SB-16 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
27	RI-SB-73	-	South Central	East of RI-MW/SB-16	Location proximate to RI-MW/SB-16 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
28	RI-SB-74	-	Southeast	East of Slag Pit #2	Location is south of locations RI-MW/SB-16, RI-MW/SB-25, and RI-MW/SB-32 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
29	RI-SB-75	-	Southeast	~300 feet east of Melt Shop Building	Location is south of locations RI-MW/SB-16, RI-MW/SB-25, and RI-MW/SB-32 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
30	RI-SB-76	-	Southeast	Southeastern corner of property; southeast of WWTP	Location is south of locations RI-MW/SB-16, RI-MW/SB-25, and RI-MW/SB-32 where Year 1 sampling results indicated multiple elevated COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.
31	RI-SB-77	-	South	North of RI-MW/SB-15	Location proximate to RI-MW/SB-15 where Year 1 sampling results indicated elevated multiple COPC levels. Additional investigation in this area would provide insight on geologic, lithologic, and COPC conditions.

Acronyms:
EGLE - Michigan Department of Environment, Great Lakes and Energy
MW - monitoring well
No. - number
SB - soil boring
PFAS - per- and polyfluroalkyl substances