TETRA TECH

TECHNICAL MEMORANDUM

To:	**Nevada Environmental Response Trust**
Cc:	Nevada Division of Environmental Protection United States Environmental Protection Agency
From:	Chris Hayes and Dana Grady
Date:	January 16, 2023
Subject:	**Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report**

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum to summarize Tetra Tech's progress during November 2023 toward successfully implementing the Unit 4 Source Area In-Situ Bioremediation (ISB) Treatability Study.

Task Progress Update: November 2023

Task M21 – Unit 4 Source Area ISB Treatability Study

- Current Status –

  Phase 2 of the Unit 4 Source Area ISB Treatability Study is ongoing. A layout map and construction details of all injection, monitoring, and extraction wells are provided on Figure 1 and in Table 1, respectively. Active injection and extraction operations began in September 2022. Although active injection operations are currently ongoing, extraction operations have now been discontinued in all areas. A summary of the operations, maintenance, and monitoring activities completed during November 2023 are summarized below.

  - Operations and Maintenance
    - Area 1 – The first phase of the treatability study for Area 1 consisted of a total dissolved solids (TDS) reduction period prior to the injection of a carbon substrate due to the presence of elevated TDS concentrations in groundwater in the Area 1 deep zone. This phase included the injection of clean water (formerly known as stabilized Lake Mead water [SLMW]) in a pulsed manner and continuous groundwater extraction to reduce TDS concentrations to levels that would allow biodegradation processes to proceed (i.e., TDS concentrations to below 21,000 milligrams per liter [mg/L] prior to carbon substrate/water injections). The TDS reduction period began on September 8, 2022 in the Area 1 deep zone. Once TDS concentrations were below the TDS goal of 21,000 mg/L for three consecutive events, a baseline groundwater sampling event was performed and the second phase of the treatability study, which included the start-up of carbon substrate injections for application of ISB into Area 1 intermediate and deep zones, was initiated.

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The baseline groundwater sampling event was performed in March 2023 and the carbon substrate injections as part of the ISB phase began on April 6, 2023.

The ISB injection process into Area 1 consists of daily-pulsed injections of a carbon substrate solution, followed by daily injections of anaerobic distribution water (clean water amended with Vitamin C). The carbon substrate solution initially consisted of 0.5 percent molasses solution, 0.5 molar sodium bicarbonate solution, trace mineral solution, and vitamin B12. The carbon substrate solution also initially contained filtered biosolids collected from the on-site fluidized bed reactors. The addition of the biosolids in the carbon substrate solution was discontinued on June 6, 2023, after the Area 1 60-day evaluation period.

In an effort to meet the large theoretical carbon demand due to the high concentrations of chemicals of potential concern present in Area 1, the molasses concentration was increased from 0.5 percent to 1.0 percent on July 12, 2023 and then further increased to 2.5 percent on October 24, 2023. Additionally, extraction operations were discontinued on October 19, 2023 and the Area 1 deep extraction well U4-E-03D was transitioned to an injection well on October 24, 2023 and incorporated into the active injection program. The macronutrient solution consisting of urea and diammonium phosphate is not currently being added to the injectate solution to minimize precipitate formation. The macronutrient solution may be added in the future if required based on effectiveness monitoring results. Summaries of Area 1 extractions and injections are provided in Tables 2 and 3, respectively. Specific details of ongoing operations in November 2023 include the following:

- Area 1 Intermediate Zone – Approximately 3,984 gallons of groundwater were extracted from two extraction wells from November 1 through November 8, 2023. On November 8, 2023, extraction operations were ceased to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval. This decision was made based on the elevated TOC concentrations measured in the extraction effluent. Active injections continued for the entire month of November, with a total of 25,141 gallons of carbon substrate solution and 20,163 gallons of distribution water injected into the two intermediate injection wells.
- Area 1 Deep Zone – Approximately 26,068 gallons of carbon substrate solution and 19,605 gallons of distribution water were injected into five Area 1 deep injection wells. As previously explained, extraction operations within the Area 1 deep treatment interval ceased on October 19, 2023, after which deep extraction well U4-E-03D was converted into an injection well on October 24, 2023 and incorporated into the active injection program. As a result, no extraction activities were performed in November 2023.
- Operations were temporarily suspended on November 9, 2023 to perform routine system maintenance.

- Area 2 – Because TDS concentrations in Area 2 were lower than Area 1 and averaged approximately 19,500 mg/L during baseline sampling, ISB injection/extraction activities were implemented without an initial TDS reduction step. Carbon substrate solution/water injection and groundwater extraction operations in both the intermediate and deep zones within Area 2 began on September 13, 2022 and are ongoing. The injection process consists of daily-pulsed injections of a carbon substrate solution, followed by daily injections of anaerobic distribution water (clean water amended with Vitamin C). The carbon substrate solution initially consisted of 0.5 percent molasses solution, 0.5 molar

sodium bicarbonate solution, trace mineral solution, vitamin B12, and filtered biosolids collected from the on-site fluidized bed reactors. The addition of the biosolids in the carbon substrate solution was discontinued on December 15, 2022 following completion of the first 90 days of system operation (in accordance with the NDEP-approved Unit 4 Source Area ISB Treatability Study Work Plan Addendum).

In an effort to improve carbon substrate distribution in the Area 2 deep treatment interval, the molasses concentration in the injectate solution was increased from 0.5 percent to 1.0 percent on July 12, 2023, followed by the discontinuation of extraction operations within the Area 2 deep treatment on July 17, 2023. Once extraction operations were discontinued, deep extraction well U4-E-08D was converted into an injection well and incorporated into the active injection program. On October 24, 2023, the molasses concentration in the injectate solution was further increased to 2.5 percent. In order to minimize hydraulic effects and potential for overdosing specifically in Area 2 following the increase to 2.5 percent molasses, the injection rates for Area 2 intermediate and deep injection wells were simultaneously reduced to approximately 0.5 gpm in all Area 2 intermediate and deep injection wells. The macronutrient solution consisting of urea and diammonium phosphate is not currently being added to the injectate solution to minimize precipitate formation. This macronutrient solution may be added in the future if required based on effectiveness monitoring results. Summaries of Area 2 extractions and injections are provided in Tables 2 and 4, respectively. Specific details of ongoing operations during November 2023 include the following:

- Area 2 Intermediate Zone – Approximately 577 gallons of groundwater were extracted from two extraction wells from November 1 through November 8, 2023. Similar to Area 1, on November 8, 2023, extraction operations were ceased to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval. Active injections continued for the entire month of November, with a total of 6,930 gallons of carbon substrate solution and 5,237 gallons of distribution water injected into two injection wells.
- Area 2 Deep Zone – Approximately 13,423 gallons of carbon substrate solution and 10,175 gallons of distribution water were injected into four injection wells. As previously explained, extraction operations within the Area 2 deep treatment interval ceased on July 17, 2023, and deep extraction well U4-E-08D was converted into an injection well and incorporated into the active injection program. As a result, no extraction activities were performed in November 2023 in the Area 2 deep treatment interval.
- Operations were temporarily suspended on November 9, 2023 to perform routine system maintenance.

- Effectiveness Monitoring – The effectiveness monitoring program included a baseline groundwater sampling event completed in April 2022 prior to system start-up. Following start-up in early September 2022, the effectiveness monitoring program was implemented in accordance with the Work Plan Addendum. During the first month of operations in Area 2, one biweekly sampling event of Area 2 monitoring wells was conducted in September 2022. The monitoring program shifted to monthly sampling in October 2022 and is ongoing for both Areas 1 and 2. In March 2023, groundwater samples were collected from all Area 1 intermediate and deep injection, extraction, and monitoring wells to establish baseline conditions prior to the startup of carbon substrate solution injections in Area 1, which began on April 6, 2023. The April 2023 sampling event was performed approximately two weeks after ISB start-up in Area 1, and

therefore serves as a biweekly sampling event for Area 1 monitoring wells and the regular monthly sampling event for Area 2. Similar to the Area 2 monitoring program, the sampling in Area 1 then shifted to a monthly basis in May 2023 and coincides with the monthly sampling performed for Area 2. Available draft groundwater analytical results from the baseline sampling event and subsequent monitoring events performed from September 2022 to October 2023 are presented in Table 5. The October 2023 groundwater results are summarized below. Groundwater analytical results from the most recent effectiveness monitoring event performed from November 15 to November 16, 2023 will be provided in future monthly progress reports as data become available from the laboratory. Final validated data will be provided in the final treatability study results report.

- Area 1 Intermediate – The October 2023 sampling event was conducted approximately six months after the start of ISB injections into Area 1 and included collection of groundwater samples from two extraction wells and three monitoring wells located immediately within the Area 1 study area. Groundwater analytical results from the October 2023 sampling event are summarized below.
    - Results from groundwater samples collected from three intermediate monitoring wells located within the immediate vicinity of the Area 1 intermediate treatment zone (i.e., U4-MW-02I, U4-MW-05I, and U4-MW-07I) indicated perchlorate concentration reductions ranging from 34 percent to 58 percent compared to pre-ISB baseline concentrations in March 2023. Although the perchlorate concentration in groundwater collected from monitoring well U4-MW-02I is still below pre-ISB March 2023 baseline levels, the concentration increased significantly from 0.158 mg/L in July 2023 to 678 mg/L in October 2023. Perchlorate concentrations in groundwater samples collected from monitoring wells U4-MW-05I and U4-MW-07I continued to exhibit slight decreasing trends after the notable July 2023 perchlorate concentration increases in the intermediate zone related to the operational change that occurred in the underlying deep zone. For example, the perchlorate concentration in groundwater samples collected from U4-MW-07I were 213 mg/L in October 2023 compared to 391 mg/L in July 2023. It is anticipated that as the system continues to reach homeostasis under the new injection scheme, perchlorate concentrations within the Area 1 intermediate zone will continue to decrease over time, as evidenced by the decreasing concentrations in groundwater collected from U4-MW-05I and U4-MW-07I. The increase in molasses concentration from 1 percent to 2.5 percent in October 2023 may also help treat this influx of perchlorate mass by providing additional carbon to the subsurface.
    - Chlorate concentration trends were similar to perchlorate concentration trends, with the highest reduction of 79 percent observed in the groundwater sample collected from monitoring well U4-MW-05I (chlorate concentration of 1,020 mg/L in October 2023 compared to a pre-ISB baseline concentration of 4,840 mg/L and the September 2023 concentration of 6,170 mg/L). Samples collected from monitoring well U4-MW-02I also indicated elevated chlorate concentrations after the July 2023 system modifications, but the chlorate concentration of 5,630 mg/L observed in October 2023 still represents a reduction of 53 percent compared to the pre-ISB baseline concentration of 12,000 mg/L. Although initially reduced, chlorate concentrations in groundwater samples collected from monitoring well U4-MW-07I have remained elevated above the pre-ISB baseline concentrations since the July 2023 system modifications.

- Nitrate concentration reductions were generally higher than perchlorate and chlorate, with reductions ranging from 47 percent to 93 percent observed in groundwater samples collected from all three monitoring wells within the immediate vicinity of the Area 1 intermediate treatment zone (i.e., U4-MW-02I, U4-MW-05I and U4-MW-07I).
- Groundwater samples collected from the three monitoring wells located in the immediate vicinity of the Area 1 intermediate treatment zone (i.e., U4-MW-02I, U4-MW-05I and U4-MW-07I) continued to indicate hexavalent chromium reductions ranging from 64 percent to greater than 99 percent, with concentrations ranging from 340 μg/L to 24,700 μg/L. Although the hexavalent chromium concentration in groundwater collected from monitoring well U4-MW-02I is still below pre-ISB March 2023 baseline levels, the concentration increased significantly from 867 μg/L in September 2023 to 24,700 μg/L in October 2023. In contrast, hexavalent chromium concentration in the groundwater samples collected from monitoring well U4-MW-07I decreased significantly from 4,220 μg/L in September 2023 to 340 μg/L in October 2023. Similar to perchlorate and chlorate, hexavalent concentrations in the groundwater samples collected from monitoring wells U4-MW-02I, U4-MW-05I and U4-MW-07I increased significantly between the June 2023 and August 2023 sampling events likely due to operational changes performed in July 2023. The hexavalent chromium concentrations are expected to continue to decrease as the system reaches homeostasis under the new injection scheme and with the subsequent increase in molasses concentration from 1 percent to 2.5 percent in October 2023.
- TOC concentrations in groundwater samples collected from monitoring wells located in the Area 1 intermediate zone ranged from 0.27 mg/L to 66 mg/L in October 2023. Although TOC concentrations in groundwater samples collected from U4-MW-02I and U4-MW-05I remained above the average baseline TOC concentration of 1.77 mg/L, a significant reduction in TOC concentrations was observed in samples collected from all three monitoring wells in the Area 1 intermediate zone in October 2023 compared to the previous September 2023 sampling event. However, TOC concentrations continued to remain extremely high in the sample collected from extraction well U4-E-01I in October 2023, with a TOC concentration of 3,350 mg/L. As a result, extraction operations were ceased on November 8, 2023 in an effort to prevent removal of carbon substrate from the targeted treatment interval. The TOC concentrations in the monitoring wells in Area 1 intermediate zone are expected to increase due to the termination of extraction activities in November 2023 combined with the increase in molasses concentration from 1 percent to 2.5 percent in October 2023.

- Area 1 Deep – During the October 2023 sampling event performed six months after the start of ISB operations in Area 1, groundwater samples were collected from one deep extraction well, and four deep monitoring wells within Area 1. Groundwater analytical results from the October 2023 sampling event are summarized below.
  - The groundwater samples collected from two of the four of the Area 1 deep zone monitoring wells exhibited decreases in perchlorate concentrations during the October 2023 sampling event compared to the previous September 2023 sampling event. The greatest concentration reduction of 52 percent compared to

March 2023 pre-ISB baseline conditions was observed in the groundwater sample collected from monitoring well U4-MW-05D. The operational changes implemented after the October 2023 sampling event, which included transitioning extraction well U4-E-03D to an injection well and increasing the molasses concentration from 1 percent to 2.5 percent, were implemented in an effort to meet the high stoichiometric demand of the Area 1 Deep zone and improve distribution of carbon in the subsurface and thus improve perchlorate treatment.

- Chlorate and nitrate concentration trends were similar to perchlorate concentration trends. The lowest chlorate concentration was observed in the groundwater sample collected from U4-MW-05D in October 2023, with a concentration of 2,740 mg/L compared to the pre-ISB baseline concentration of 5,680 mg/L (concentration reduction of 52 percent). Nitrate concentrations in groundwater collected from two Area 1 deep zone monitoring wells were significantly less than the March 2023 pre-ISB baseline concentrations with percentage reductions of 64 percent and 78 percent observed in groundwater samples collected from U4-E-05D and M-251-100, respectively.
- In general, hexavalent chromium concentration trends in October 2023 followed a similar pattern to perchlorate concentrations. The greatest hexavalent chromium concentration reduction was observed in the groundwater sample collected from U4-MW-05D, with an October 2023 result of 10,200 μg/L (64 percent reduction compared to the March 2023 pre-ISB baseline concentration of 28,200 μg/L).
- TOC concentrations in groundwater samples collected from U4-MW-05D and U4-MW-07D in October 2023 remained elevated at concentrations of 185 mg/L and 282 mg/L, respectively. Both of these results are notably higher than the July 2023 results, which ranged from 22.1 mg/L to 38.9 mg/L. It is anticipated that the addition of U4-E-03D as an injection well and the increase of the molasses concentration to 2.5 percent in October 2023, in an effort to meet the high stoichiometric demand of the Area 1 deep zone and improve the distribution of carbon in the subsurface, will result in TOC concentrations continuing to increase within the Area 1 deep treatment interval.

- Area 2 Intermediate – In October 2023, approximately thirteen months after the start of ISB in Area 2, groundwater samples were collected from three intermediate monitoring wells located within Area 2 and two extraction wells screened in the Area 2 intermediate zone. Groundwater analytical results from the October 2023 sampling event are summarized below.
  - As discussed in previous monthly progress reports, perchlorate concentrations in the groundwater samples collected from all three intermediate monitoring wells (i.e., U4-MW-11I, U4-MW-12I, and U4-MW-13I) increased in August 2023 compared to the concentrations observed during the July 2023 sampling event. These perchlorate concentration increases in the intermediate zone in August 2023 were likely related to the operational modifications in July 2023 (i.e., converting extraction well U4-E-08D into an injection well and increasing injection rates) that altered the vertical hydraulic gradient that likely caused a flux of untreated groundwater into the Area 2 intermediate treatment zone. Perchlorate concentrations measured in the groundwater samples collected from U4-MW-12I and U4-MW-13I in October 2023 indicated decreasing

perchlorate concentrations following these operational changes, with reductions of greater than 99 percent and 15 percent, respectively, compared to baseline concentrations. The lowest perchlorate concentration of 0.321 mg/L was detected in the groundwater sample collected from monitoring well U4-MW-12I, which is the lowest concentration observed in groundwater samples collected from this monitoring well since June 2023. However, perchlorate concentrations in samples collected from monitoring well U4-MW-11I continued to indicate an increasing trend following the July 2023 operational changes, with an October 2023 perchlorate concentration of 597 mg/L. It is anticipated that as the system continues to reach homeostasis under the new injection scheme, the influx of perchlorate mass will continue to be treated and perchlorate concentrations within the Area 2 intermediate zone will continue to decrease over time.

- Chlorate and nitrate concentration trends were similar to perchlorate trends, with overall concentration reductions generally observed when compared to baseline but increases in concentrations observed when comparing the results from the October 2023 sampling event to results prior to the July 2023 operational changes. Despite these fluctuations related to the operational changes, significant chlorate and nitrate concentration decreases of greater than 99 percent were observed in the groundwater sample collected from U4-MW-12I. It is anticipated that as the system continues to reach homeostasis under the new injection scheme, chlorate and nitrate concentrations within Area 2 intermediate will continue to decrease over time.
- Hexavalent chromium concentration reductions were observed in samples collected in October 2023 from two of the three intermediate monitoring wells, namely, U4-MW-12I and U4-MW-13I. The hexavalent chromium concentration measured in groundwater collected from monitoring well U4-MW-12I measured 0.72 μg/L, which represents a greater than 99 percent reduction compared to the baseline concentration of 21,200 μg/L. However, the groundwater sample collected from monitoring well U4-MW11I indicated a significant increase from 2,050 μg/L in September 2023 to 29,500 μg/L in October 2023.
- TOC concentrations in groundwater samples collected from Area 2 intermediate monitoring wells ranged from 2.78 mg/L to 123 mg/L, which are greater than the average baseline TOC concentration of 1.25 mg/L. The groundwater sample collected from monitoring well U4-MW-12I showed a significant increase in TOC concentrations from 14 mg/L in September 2023 to 123 mg/L in October 2023. Notably, the highest TOC concentration measured in groundwater collected from the Area 2 intermediate zone of 486 mg/L was collected from extraction well U4-E-06I. As a result, extraction operations ceased on November 8, 2023 to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval.

- Area 2 Deep – During the October 2023 sampling event performed thirteen months after the start of ISB operations in Area 2, groundwater samples were collected from three deep monitoring wells within Area 2. Groundwater analytical results from the October 2023 sampling event are summarized below.
  - When compared to baseline concentrations, perchlorate concentration reductions ranging from 39 percent to 83 percent were observed in groundwater samples collected from the three deep monitoring wells located within Area 2 (i.e., U4-MW-11D, U4-MW-12D, and U4-MW-13D). The perchlorate

concentration in the groundwater sample collected from monitoring well U4-MW-12D in October 2023 measured 218 mg/L, which represents an 83 percent reduction compared to the baseline concentration of 1,280 mg/L and is the lowest perchlorate concentration observed to date in groundwater samples collected from U4-MW-12D.

- Concentration reductions for chlorate and nitrate in the groundwater samples collected from the three deep monitoring wells within Area 2 were slightly greater than perchlorate (reductions averaging 68 percent for chlorate and 86 percent for nitrate when compared to baseline concentrations). As with perchlorate concentrations, the chlorate concentration of 2,520 mg/L in groundwater collected from monitoring well U4-MW-12D in October 2023 is the lowest concentrations observed to date in samples collected from this location, representing a reduction of 83 percent compared to baseline concentrations. Similarly, the lowest nitrate concentration of 1.68 mg/L was also detected in the groundwater sample collected from monitoring well U4-MW-12D in October 2023.
- Hexavalent chromium concentration reductions ranging from 40 percent to 85 percent when compared to baseline concentrations were observed in groundwater samples collected from the three deep monitoring wells located within Area 2. The hexavalent chromium concentration in groundwater collected from U4-MW-12D in October 2023 was 9,270 μg/L, which is the lowest hexavalent chromium concentration observed to date in groundwater samples collected from this location and represents an 85 percent reduction compared to the baseline concentration of 63,700 μg/L.
- TOC concentrations in groundwater samples collected from the Area 2 deep monitoring wells ranged from 2.51 mg/L to 181 mg/L (baseline concentration average of 2.17 mg/L) in October 2023. These October 2023 TOC concentrations represent significant increases compared to TOC concentrations detected in September 2023, which ranged from 1.75 mg/L to 13.2 mg/L. The TOC concentrations of 181 mg/L and 98.1 mg/L measured in samples collected from monitoring wells U4-MW-11D and U4-MW-12D, respectively, were the highest measured to date within the Area 2 deep zone. These observed increases in TOC concentrations in October 2023 is likely a result of the system modifications performed in July 2023 in an effort to improve distribution of carbon substrate throughout the Area 2 deep zone, which included increasing the molasses concentration and converting the extraction well U4-E-08D into an injection well.

- Schedule and Progress Updates
  - Area 1 ISB operations are anticipated to continue through early April 2024.
  - Per the Work Plan Addendum, Area 2 ISB operations were projected to be implemented for a duration of 12 to 18 months. Based on the results from the first twelve months of operations, NERT decided to continue the ISB operations in Area 2 for the full 18 months to fully evaluate the effects of July 2023 operational modifications made in an effort to improve the distribution of carbon substrate throughout the Area 2 Deep zone. Therefore, Area 2 ISB operations are anticipated to continue through early April 2024 and coincide with the operational shutdown for Area 1.
  - Extraction operations within the Area 1 and Area 2 deep treatment intervals were ceased in October 2023 and July 2023, respectively, when deep extraction wells U4-E-03D and U4-E-08D

were converted into injection wells. As discussed herein, it was recommended that extraction operations in the Area 1 and Area 2 intermediate zones ceased on November 8, 2023 based on the elevated TOC concentrations measured in the extraction effluent and to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval.

- Health and Safety
  - There were no health and safety incidents related to Task M21 in November 2023.

CERTIFICATION

Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report

Nevada Environmental Response Trust Site
(Former Tronox LLC Site)
Henderson, Nevada

Nevada Environmental Response Trust (NERT) Representative Certification
I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Not Individually, but Solely
as President of the Trustee

Signature: Jay A Steinberg, President, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Name: Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Title: Solely as President and not individually

Company: Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Date: 1/16/24

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided:

Prepared Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report.

January 16, 2024

Date

Christopher Hayes, CEM
Environmental Engineer
Tetra Tech, Inc.

Nevada CEM Certificate Number: EM2499
Nevada CEM Expiration Date: December 15, 2024

Figures

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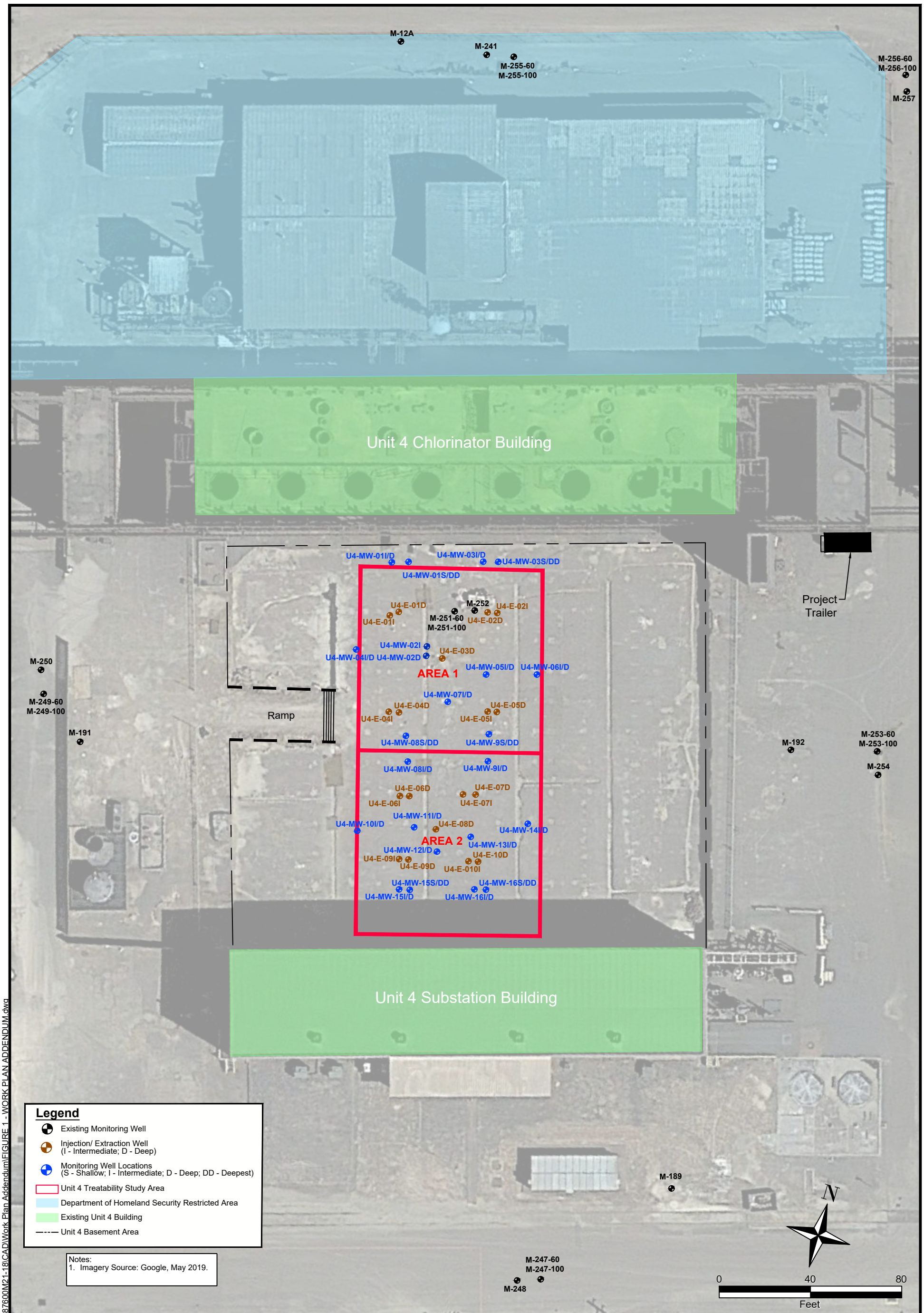

\\tts318fs3.tt.local\CES\Projects\87600M21-18\CAD\Work Plan Addendum\FIGURE 1 - WORK PLAN ADDENDUM.dwg

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NEVADA ENVIRONMENTAL RESPONSE TRUST SITE

UNIT 4 SOURCE AREA IN-SITU BIOREMEDIATION TREATABILITY STUDY
HENDERSON, NEVADA

INJECTION/ EXTRACTION AND MONITORING WELL LAYOUT

Project No.:	117-7502021-M21
Date:	May 10, 2022
Designed By:	AC

Figure No.

1

Tables

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Table 1
Well Construction Details
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well ID	Screened Lithology	Northing	Easting	Ground Surface Elevation[1]	Top of Casing Elevation	Construction Type	Casing Material	Screen Material	Slot Size	Filter Pack Gradation	Borehole Diameter	Borehole Total Depth	Well Diameter	Nominal Screen Length	Well Total Depth	Bottom of Screen	Top of Screen
				feet amsl	feet amsl				inches		inches	feet bgs[1]	inches	feet	feet bgs[1]	feet bgs[1]	feet bgs[1]
U4-E-01D	UMCf	26717332.49	828215.74	1805.50	1805.11	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	94.7	109.7
U4-E-01I	UMCf	26717330.42	828212.11	1805.40	1805.15	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	74.6	89.6
U4-E-02D	UMCf	26717338.47	828258.40	1805.55	1804.99	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	94.4	109.4
U4-E-02I	UMCf	26717338.14	828254.24	1805.51	1804.99	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	74.4	89.4
U4-E-04D	UMCf	26717288.90	828222.53	1805.49	1804.95	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-E-03D	UMCf	26717310.37	828241.13	1805.49	1804.94	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	113.0	4	15	111.1	110.1	95.1
U4-E-04I	UMCf	26717288.51	828217.91	1805.64	1805.03	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-E-05D	UMCf	26717295.64	828264.86	1805.48	1804.95	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-E-05I	UMCf	26717295.15	828260.95	1805.58	1804.72	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-E-06D	UMCf	26717253.44	828232.43	1805.44	1804.74	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	111.1	110.1	95.1
U4-E-06I	UMCf	26717252.90	828228.29	1805.47	1805.04	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.5	4	15	89.2	88.2	73.2
U4-E-07D	UMCf	26717258.48	828261.02	1805.62	1805.31	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	111.5	4	15	110.6	109.6	94.6
U4-E-07I	UMCf	26717257.68	828255.56	1805.62	1805.16	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.7	89.7	74.7
U4-E-08D	UMCf	26717240.82	828246.11	1805.45	1804.91	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	120.0	4	15	110.6	109.6	94.6
U4-E-09D	UMCf	26717225.92	828236.22	1805.45	1804.91	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	110.5	109.5	94.5
U4-E-09I	UMCf	26717225.46	828232.18	1805.47	1805.14	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	93.3	4	15	90.9	89.9	74.9
U4-E-10D	UMCf	26717229.55	828266.50	1805.66	1805.28	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	110.5	109.5	94.5
U4-E-10I	UMCf	26717229.15	828262.34	1805.71	1805.37	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.2	89.2	74.2
U4-MW-01I	UMCf	26717353.59	828209.51	1805.57	1805.14	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.7	86.7	76.7
U4-MW-01D	UMCf	26717353.51	828209.25	1805.57	1805.10		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.7	106.7	96.7
U4-MW-01S	UMCf	26717354.83	828216.42	1805.57	1805.02	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.0	2	10	64.7	64.7	54.7
U4-MW-01DD	UMCf	26717354.86	828216.87	1805.57	1805.09		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.9	129.9	119.9
U4-MW-02D	UMCf	26717315.33	828230.47	1805.50	1805.07	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-MW-02I	UMCf	26717319.45	828230.17	1805.47	1805.07	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-MW-03I	UMCf	26717359.79	828248.76	1805.61	1805.17	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.3	2	10	86.6	86.6	76.6
U4-MW-03D	UMCf	26717360.01	828249.20	1805.61	1805.18		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.6	106.6	96.6
U4-MW-03S	UMCf	26717360.79	828255.35	1805.56	1805.19	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.3	2	10	64.5	64.5	54.5
U4-MW-03DD	UMCf	26717360.84	828255.62	1805.56	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.7	129.7	119.7
U4-MW-04I	UMCf	26717313.50	828199.89	1805.49	1805.13	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.5	2	10	86.8	86.8	76.8
U4-MW-04D	UMCf	26717313.36	828199.55	1805.49	1805.15		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.0	107.0	97.0
U4-MW-05I	UMCf	26717311.18	828257.53	1805.52	1805.06	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.6	86.6	76.6
U4-MW-05D	UMCf	26717311.18	828257.89	1805.52	1805.05		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.2	108.2	98.2
U4-MW-06I	UMCf	26717314.46	828279.53	1805.52	1805.21	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.3	2	10	86.5	86.5	76.5
U4-MW-06D	UMCf	26717314.51	828279.82	1805.52	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.1	107.1	97.1
U4-MW-07I	UMCf	26717296.98	828242.85	1805.36	1805.16	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.2	2	10	86.8	86.8	76.8
U4-MW-07D	UMCf	26717296.68	828242.80	1805.36	1805.01		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.5	106.5	96.5
U4-MW-08I	UMCf	26717268.25	828229.36	1805.45	1804.97	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	88.0	88.0	78.0
U4-MW-08D	UMCf	26717268.30	828229.62	1805.45	1804.99		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.6	108.6	98.6
U4-MW-08S	UMCf	26717279.33	828226.78	1805.47	1804.94	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.2	2	10	64.9	64.9	54.9
U4-MW-08DD	UMCf	26717279.35	828227.22	1805.47	1804.95		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.8	129.8	119.8
U4-MW-09I	UMCf	26717273.70	828264.04	1805.62	1805.22	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.8	86.8	76.8
U4-MW-09D	UMCf	26717273.73	828264.40	1805.62	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.9	106.9	96.9
U4-MW-09S	UMCf	26717285.44	828262.62	1805.55	1805.12	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	132.0	2	10	65.3	65.3	55.3
U4-MW-09DD	UMCf	26717285.52	828263.00	1805.55	1805.12		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.8	129.8	119.8
U4-MW-10I	UMCf	26717234.83	828212.05	1805.55	1805.10	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.1	87.1	77.1
U4-MW-10D	UMCf	26717235.18	828212.26	1805.55	1805.07		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.9	106.9	96.9
U4-MW-11I	UMCf	26717240.19	828236.42	1805.41	1805.03	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.0	87.0	77.0
U4-MW-11D	UMCf	26717240.23	828236.77	1805.41	1804.96		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.4	107.4	97.4
U4-MW-12I	UMCf	26717231.25	828247.87	1805.47	1805.11	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.8	86.8	76.8
U4-MW-12D	UMCf	26717231.22	828248.29	1805.47	1805.12		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.1	107.1	97.1
U4-MW-13I	UMCf	26717242.66	828261.00	1805.64	1805.28	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.1	87.1	77.1
U4-MW-13D	UMCf	26717242.70	828261.37	1805.64	1805.35		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.2	108.2	98.2
U4-MW-14I	UMCf	26717249.26	828285.32	1805.43	1805.13	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.3	87.3	77.3
U4-MW-14D	UMCf	26717249.24	828285.84	1805.43	1805.05		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.3	107.3	97.3
U4-MW-15I	UMCf	26717212.34	828233.91	1805.48	1805.03	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	86.8	86.8	76.8
U4-MW-15D	UMCf	26717212.35	828234.41	1805.48	1804.97		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.0	106.0	96.0
U4-MW-15S	UMCf	26717212.89	828238.61	1805.44	1805.05	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	132.0	2	10	64.8	64.8	54.8
U4-MW-15DD	UMCf	26717212.87	828239.01	1805.44	1804.98		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	130.3	130.3	120.3
U4-MW-16I	UMCf	26717217.25	828266.62	1805.68	1805.36	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.5	2	10	87.0	87.0	77.0
U4-MW-16D	UMCf	26717217.40	828266.90	1805.68	1805.27		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.8	106.8	96.8
U4-MW-16S	UMCf	26717217.87	828271.70	1805.59	1805.24	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.0	2	10	64.8	64.8	54.8
U4-MW-16DD	UMCf	26717218.04	828271.95	1805.59	1805.32		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	130.8	130.8	120.8

Notes
amsl - above mean sea level
bgs - below ground surface
bTOC - below top of casing
PVC - polyvinyl chloride
UMCf - Upper Muddy Creek formation
1. Ground surface refers to the concrete floor of the Unit 4 basement, which is approximately 8 feet below the surrounding grade.
2. Well names including E indicate an extraction/injection well. Well names including MW indicate a monitoring well.

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Table 2
Summary of Groundwater Extraction Activities - November 2023
Unit 4 Source Area Bioremediation Treatability Study

Study Area	Start Time	Stop Time	Duration	Area 1 Intermediate						Area 2 Intermediate					
Well ID				U4-E-01I			U4-E-02I			U4-E-06I			U4-E-07I		
Date				Average Flow Rate	Volume Extracted	Cumulative Total Volume	Average Flow Rate	Volume Extracted	Cumulative Total Volume	Average Flow Rate	Volume Extracted	Cumulative Total Volume	Average Flow Rate	Volume Extracted	Cumulative Total Volume
			minutes	gpm	gallons	gallons	gpm	gallons	gallons	gpm	gallons	gallons	gpm	gallons	gallons
11/1/2023	6:45	15:00	495	0.9	459.81	181,946.19	0.3	130.84	152,205.70	0.1	33.79	124,658.53	0.1	66.04	67,101.87
11/2/2023	6:45	15:01	496	1.0	434.48	182,380.67	0.3	124.11	152,329.81	0.1	32.49	124,691.02	0.1	64.67	67,166.54
11/3/2023	6:45	15:00	495	0.9	371.81	182,752.48	0.2	113.79	152,443.60	0.1	47.28	124,738.30	0.1	39.16	67,205.70
11/4/2023	6:45	15:00	495	0.7	483.60	183,236.08	0.2	105.92	152,549.52	0.1	38.57	124,776.87	0.1	52.96	67,258.66
11/5/2023	6:45	15:00	495	0.8	475.40	183,711.48	0.2	106.08	152,655.60	0.1	36.91	124,813.78	0.04	18.99	67,277.65
11/6/2023	6:45	15:00	495	0.9	466.29	184,177.77	0.3	133.96	152,789.56	0.1	33.25	124,847.03	0.1	45.07	67,322.72
11/7/2023	6:45	15:00	495	0.9	434.75	184,612.52	0.3	143.55	152,933.11	0.1	27.90	124,874.93	0.1	40.40	67,363.12
11/8/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/9/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/10/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/12/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/13/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/14/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/15/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/16/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/17/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/18/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/19/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/20/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/21/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/22/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/23/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/24/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/25/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/26/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/27/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/28/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/29/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/30/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November 2023 Total				**3,126**			**858**			**250**			**327**		
Cumulative Total				**184,613**			**152,933**			**124,875**			**67,363**		

Notes:
gpm - gallons per minute
Extraction operations were ceased on November 8, 2023.

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Table 3
Summary of Injection Activities
Area 1 - November 2023
Unit 4 Source Area Bioremediation Treatability Study

Study Area				Area 1 Intermediate								Area 1 Deep				Area 1 Deep															
Well ID				U4-E-04I				U4-E-05I				U4-E-01D				U4-E-02D				U4-E-03D				U4-E-04D				U4-E-05D			
Date	Injection Start Time	Injection Stop Time	Duration[1]	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3,4]	Average Flow Rate	Maximum Injection Pressure
			minutes	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi
11/1/2023	6:40	14:07	396	425.35	330.04	1.9	19	444.34	342.88	2.0	16	179.71	148.03	0.8	22	169.3	121.65	0.7	31	166	116	0.7	30	184.46	133.56	0.8	27	164.45	118.48	0.7	39
11/2/2023	6:40	14:16	406	428.36	366.53	2.0	20	433.31	358.07	1.9	16	174.35	143.97	0.8	20	158.1	114.33	0.7	32	181	137	0.8	27	170.41	138.55	0.8	26	200.12	124.33	0.8	42
11/3/2023	6:40	14:19	410	423.55	355.68	1.9	18	450.52	348.67	1.9	17	172.24	145.02	0.8	25	180.4	96.16	0.7	32	172	125	0.7	30	177.66	127.12	0.7	24	171.22	125.78	0.7	40
11/4/2023	6:40	14:13	397	427.91	332.71	1.9	17	420.54	335.02	1.9	16	183.07	151.30	0.8	18	182.7	126.98	0.8	31	169	130	0.8	28	178.39	145.10	0.8	24	174.62	127.13	0.8	41
11/5/2023	6:40	14:20	418	419.75	351.82	1.8	18	443.59	359.20	1.9	16	187.96	154.51	0.8	18	176.3	121.62	0.7	32	196	157	0.8	24	184.87	136.02	0.8	24	190.18	113.25	0.7	41
11/6/2023	6:40	14:24	426	401.28	340.76	1.7	16	454.95	357.41	1.9	15	175.35	157.76	0.8	22	179.9	121.00	0.7	32	200	157	0.8	22	179.76	141.24	0.8	24	184.69	148.02	0.8	40
11/7/2023	6:40	14:14	412	429.38	336.96	1.9	16	408.97	334.94	1.8	18	184.30	156.59	0.8	24	192.3	130.42	0.8	32	172	147	0.8	21	174.73	135.88	0.8	24	168.29	128.33	0.7	40
11/8/2023	6:40	14:10	405	413.88	322.88	1.8	18	434.61	322.98	1.9	17	157.23	116.63	0.7	26	173.0	122.24	0.7	32	185	138	0.8	20	183.47	127.06	0.8	27	176.90	123.60	0.7	40
11/9/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/10/2023	6:40	14:22	414	442.97	356.48	1.9	18	426.13	359.86	1.9	21	170.70	138.57	0.7	24	172.7	125.06	0.7	30	179	137	0.8	22	184.54	137.86	0.8	28	155.98	128.35	0.7	40
11/11/2023	6:40	14:17	414	455.52	338.22	1.9	18	443.29	344.27	1.9	18	173.74	145.43	0.8	26	175.3	127.63	0.7	30	181	145	0.8	18	181.17	132.50	0.8	27	190.05	142.68	0.8	40
11/12/2023	6:40	14:21	408	426.55	346.54	1.9	18	459.69	320.13	1.9	15	174.76	142.67	0.8	25	179.2	130.43	0.8	32	193	136	0.8	19	177.53	139.79	0.8	27	188.26	139.23	0.8	36
11/13/2023	6:40	14:26	433	416.50	364.60	1.8	17	468.09	358.92	1.9	16	181.97	131.06	0.7	26	189.9	126.88	0.7	33	183	147	0.8	18	193.16	140.62	0.8	26	182.40	140.08	0.7	40
11/14/2023	6:40	14:27	427	426.75	341.66	1.8	17	443.63	347.60	1.9	16	195.39	141.37	0.8	26	168.9	135.35	0.7	32	188	145	0.8	20	170.66	140.09	0.7	26	185.08	122.86	0.7	41
11/15/2023	6:40	14:21	423	424.57	337.49	1.8	18	396.67	332.50	1.7	18	175.41	151.68	0.8	26	167.4	132.41	0.7	33	189	141	0.8	19	185.21	139.26	0.8	26	220.94	133.48	0.8	38
11/16/2023	4:40	12:16	410	428.84	342.57	1.9	16	423.94	353.62	1.9	15	190.82	136.04	0.8	26	179.9	133.08	0.8	33	195	141	0.8	20	175.68	137.15	0.8	26	178.06	129.77	0.8	38
11/17/2023	6:40	14:35	436	459.37	372.12	1.9	17	437.04	333.98	1.8	16	184.38	140.41	0.7	26	161.2	137.02	0.7	32	188	149	0.8	20	169.08	151.36	0.7	26	171.90	92.29	0.6	40
11/18/2023	6:40	14:09	409	428.23	368.64	1.9	18	443.47	359.65	2.0	15	199.84	157.66	0.9	26	174.4	119.72	0.7	32	180	151	0.8	20	175.39	143.94	0.8	26	172.73	121.07	0.7	40
11/19/2023	6:40	14:20	415	425.42	309.37	1.8	17	452.86	370.28	2.0	14	179.98	145.95	0.8	26	166.5	124.33	0.7	32	181	139	0.8	21	169.96	143.55	0.8	26	192.97	131.48	0.8	37
11/20/2023	6:40	14:18	418	437.09	328.07	1.8	18	433.70	347.08	1.9	16	177.81	142.23	0.8	26	152.8	127.72	0.7	32	188	144	0.8	22	182.35	133.54	0.8	26	176.84	131.36	0.7	37
11/21/2023	6:40	14:29	433	453.31	355.87	1.9	18	465.33	350.19	1.9	16	180.37	146.56	0.8	26	173.9	121.15	0.7	32	195	143	0.8	23	204.15	133.73	0.8	26	180.11	135.43	0.7	40
11/22/2023	6:40	14:45	434	443.46	375.37	1.9	16	429.78	350.83	1.8	14	189.31	146.60	0.8	26	179.3	132.32	0.7	31	186	148	0.8	24	186.52	131.23	0.7	26	175.78	146.32	0.7	39
11/23/2023	6:40	14:16	419	451.82	367.79	2.0	17	460.73	340.24	1.9	16	181.78	143.54	0.8	27	177.2	119.11	0.7	32	196	145	0.8	23	175.85	135.39	0.7	26	175.59	123.60	0.7	38
11/24/2023	6:40	14:29	419	431.55	341.37	1.8	17	412.58	361.82	1.8	14	170.74	146.72	0.8	27	167.8	132.07	0.7	32	166	123	0.7	30	174.44	133.13	0.7	26	182.20	137.92	0.8	36
11/25/2023	6:40	14:08	405	414.63	346.67	1.9	18	422.25	349.99	1.9	15	187.44	146.85	0.8	29	175.0	142.27	0.8	32	183	111	0.7	25	196.42	142.48	0.8	27	188.32	132.93	0.8	41
11/26/2023	6:40	14:22	427	443.48	339.35	1.8	17	436.35	348.99	1.8	14	193.17	144.20	0.8	30	176.0	127.93	0.7	32	179	141	0.8	24	181.94	140.21	0.8	26	183.82	136.52	0.8	40
11/27/2023	6:40	14:28	434	415.40	342.52	1.7	17	461.09	361.69	1.9	16	194.43	154.07	0.8	26	171.0	126.35	0.7	33	192	139	0.8	25	187.73	137.78	0.8	26	185.60	134.85	0.7	40
11/28/2023	5:40	13:48	453	443.40	354.45	1.8	16	391.66	344.11	1.6	14	187.35	143.09	0.7	29	164.1	124.90	0.6	32	167	146	0.7	24	179.47	129.79	0.7	27	172.21	134.34	0.7	38
11/29/2023	6:40	14:18	409	396.51	362.05	1.9	16	450.77	340.59	1.9	16	173.19	142.97	0.8	30	176.0	119.18	0.7	33	173	132	0.7	24	189.77	120.38	0.8	27	176.00	123.66	0.7	38
11/30/2023	6:40	14:20	407	420.62	354.12	1.9	18	435.75	344.79	1.9	16	160.88	145.09	0.8	29	159.7	117.41	0.7	33	191	133	0.8	25	177.10	127.84	0.7	27	178.02	131.63	0.8	37
November 2023 Total				**12,455**	**10,083**			**12,686**	**10,080**			**5,238**	**4,207**			**5,020**	**3,637**			**5,314**	**4,047**			**5,252**	**3,956**			**5,243**	**3,759**		
Cumulative Total				**112,402**	**86,412**			**102,119**	**87,361**			**36,457**	**164,062**			**34,023**	**160,260**			**6,669**	**5,136**			**46,654**	**170,135**			**44,298**	**167,020**		

Notes:
gpm - gallons per minute
psi - pounds per square inch
1. Injection duration indicates the total minutes of active injection per day, accounting for any downtime in injections that may have occurred throughout the day. Therefore, injection duration may be less than the difference in daily injection start and stop times indicated.
2. Carbon substrate solution is batch mixed. Batches of carbon substrate solution includes the following components in solution with Stabilized Lake Mead Water (SLMW): 2.5% molasses, 6.25% 0.5 Molar Sodium Bicarbonate Solution, 0.001% trace mineral solution, and 5 milligrams per liter Vitamin B12.
3. Distribution water solution is batch mixed. Batches of distribution water solution includes 0.0025 pounds of Vitamin C per gallon of Stabilized Lake Mead Water (SLMW).
4. Prior to April 6, 2023, injections into Area 1 Deep wells consisted of only Stabilized Lake Mead Water as part of the total dissolved solids (TDS)-reduction period of the treatability study water injection.
5. System operations were temporarily suspended to perform system maintenance on November 9, 2023.

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Table 4
Summary of Injection Activities
Area 2 - November 2023
Unit 4 Source Area Bioremediation Treatability Study

Study Area				Area 2 Intermediate								Area 2 Deep												Area 2 Deep			
Well ID				U4-E-09I				U4-E-10I				U4-E-06D				U4-E-08D				U4-E-09D				U4-E-010D			
Date	Injection Start Time	Injection Stop Time	Duration[1]	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected[2]	Volume Distribution Water Solution Injected[3]	Average Flow Rate	Maximum Injection Pressure
			minutes	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi
11/1/2023	6:40	14:07	412	119.68	103.17	0.5	19	119.49	104.31	0.5	24	121.46	83.19	0.5	30	105	88	0.5	17	116.75	112.84	0.6	25	85.89	92.90	0.4	21
11/2/2023	6:40	14:16	420	138.96	92.09	0.6	19	124.37	77.24	0.5	24	108.38	100.37	0.5	28	135	77	0.5	18	101.74	106.66	0.5	24	109.07	52.01	0.4	22
11/3/2023	6:40	14:19	422	118.13	99.40	0.5	18	122.67	93.91	0.5	24	101.74	97.01	0.5	28	113	88	0.5	18	88.45	90.20	0.4	26	110.97	88.85	0.5	21
11/4/2023	6:40	14:13	412	130.50	92.11	0.5	19	120.64	95.71	0.5	24	125.65	104.63	0.6	28	127	91	0.5	18	125.47	102.35	0.6	25	115.41	84.10	0.5	20
11/5/2023	6:40	14:20	437	100.00	58.36	0.4	20	132.28	67.92	0.5	24	120.30	69.90	0.4	27	117	90	0.5	18	109.60	101.97	0.5	28	96.17	64.54	0.4	22
11/6/2023	6:40	14:24	442	111.82	72.12	0.4	22	110.77	80.54	0.4	26	116.10	90.34	0.5	28	127	95	0.5	19	139.46	89.27	0.5	27	106.67	92.80	0.5	23
11/7/2023	6:40	14:14	426	100.00	90.30	0.4	23	99.88	76.20	0.4	28	122.81	98.77	0.5	29	125	84	0.5	20	134.41	92.89	0.5	27	88.69	85.57	0.4	22
11/8/2023	6:40	14:10	426	106.37	85.08	0.4	24	127.25	90.76	0.5	28	111.79	97.84	0.5	30	120	92	0.5	21	112.31	88.46	0.5	28	109.77	91.91	0.5	22
11/9/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/10/2023	6:40	14:22	434	111.75	73.60	0.4	22	123.12	73.43	0.5	27	135.81	71.67	0.5	29	117	88	0.5	21	114.46	85.00	0.5	29	111.28	88.52	0.5	22
11/11/2023	6:40	14:17	429	110.74	81.95	0.4	23	122.14	101.81	0.5	26	128.13	98.52	0.5	30	124	98	0.5	20	114.28	83.29	0.5	29	104.03	84.66	0.4	22
11/12/2023	6:40	14:21	431	100.84	89.98	0.4	22	127.36	100.42	0.5	24	115.16	88.89	0.5	31	116	89	0.5	18	117.39	100.57	0.5	29	94.31	88.14	0.4	21
11/13/2023	6:40	14:26	445	112.35	78.98	0.4	22	106.38	84.53	0.4	22	118.65	80.99	0.4	28	110	100	0.5	20	111.57	90.29	0.5	28	75.64	70.49	0.3	22
11/14/2023	6:40	14:27	446	122.75	87.35	0.5	22	135.95	83.40	0.5	22	109.35	81.49	0.4	27	131	108	0.5	18	124.56	92.49	0.5	28	107.30	67.29	0.4	22
11/15/2023	6:40	14:21	438	146.29	83.68	0.5	20	126.89	99.76	0.5	21	119.71	98.89	0.5	26	117	110	0.5	18	113.39	96.30	0.5	28	120.49	89.36	0.5	22
11/16/2023	4:40	12:16	426	116.71	101.03	0.5	20	131.32	92.42	0.5	20	96.10	94.06	0.4	27	133	94	0.5	19	124.01	101.93	0.5	27	52.75	90.15	0.3	21
11/17/2023	6:40	14:35	450	101.29	100.79	0.4	20	109.19	74.52	0.4	20	112.31	71.69	0.4	28	127	110	0.5	17	121.87	81.61	0.5	28	101.51	29.17	0.3	24
11/18/2023	6:40	14:09	423	126.61	110.36	0.6	20	119.40	95.60	0.5	20	116.23	97.06	0.5	28	116	110	0.5	22	123.32	112.05	0.6	29	91.38	80.22	0.4	22
11/19/2023	6:40	14:20	431	114.54	102.24	0.5	20	119.22	83.16	0.5	22	111.80	88.87	0.5	30	116	82	0.5	20	126.51	94.37	0.5	28	91.58	68.05	0.4	22
11/20/2023	6:40	14:18	431	113.76	77.17	0.4	20	114.11	96.87	0.5	22	76.39	91.09	0.4	26	132	88	0.5	20	145.37	101.47	0.6	29	84.92	80.18	0.4	22
11/21/2023	6:40	14:29	448	104.91	93.06	0.4	20	132.16	94.46	0.5	20	117.03	86.97	0.5	28	142	102	0.5	19	121.23	99.36	0.5	29	73.11	86.62	0.4	22
11/22/2023	6:40	14:45	462	124.78	107.91	0.5	18	143.32	104.98	0.5	20	126.16	63.38	0.4	28	139	97	0.5	20	116.87	79.22	0.4	30	90.27	66.73	0.3	24
11/23/2023	6:40	14:16	432	137.41	77.67	0.5	19	131.48	98.39	0.5	20	112.22	77.62	0.4	27	104	99	0.5	20	115.31	73.99	0.4	28	79.53	87.44	0.4	22
11/24/2023	6:40	14:29	433	135.27	84.17	0.5	19	118.33	82.71	0.5	21	133.29	99.61	0.5	27	121	89	0.5	20	138.39	92.15	0.5	28	121.36	84.20	0.5	22
11/25/2023	6:40	14:08	419	139.19	105.80	0.6	18	127.37	99.47	0.5	20	120.07	98.54	0.5	26	126	94	0.5	20	122.71	92.54	0.5	28	113.45	97.71	0.5	20
11/26/2023	6:40	14:22	440	120.57	102.43	0.5	18	124.52	97.39	0.5	21	132.47	63.23	0.4	26	109	104	0.5	21	121.74	89.34	0.5	27	113.83	52.93	0.4	19
11/27/2023	6:40	14:28	447	115.30	84.51	0.4	18	125.48	103.80	0.5	20	110.08	80.84	0.4	28	130	95	0.5	19	117.69	44.51	0.4	26	117.57	70.61	0.4	18
11/28/2023	5:40	13:48	467	92.62	77.44	0.4	18	109.82	94.63	0.4	19	256.35	67.40	0.7	32	119	90	0.4	19	107.17	103.05	0.5	27	96.22	56.20	0.3	22
11/29/2023	6:40	14:18	430	108.66	80.60	0.4	17	110.10	97.79	0.5	20	132.14	77.27	0.5	23	119	93	0.5	19	119.35	84.13	0.5	26	101.10	95.39	0.5	18
11/30/2023	6:40	14:20	429	112.90	106.64	0.5	18	119.91	90.91	0.5	20	128.26	82.80	0.5	24	123	94	0.5	20	128.50	85.13	0.5	26	105.87	77.01	0.4	20
November 2023 Total				**3,395**	**2,600**			**3,535**	**2,637**			**3,536**	**2,503**			**3,543**	**2,741**			**3,474**	**2,667**			**2,870**	**2,264**		
Cumulative Total				**132,134**	**105,855**			**133,142**	**106,861**			**98,038**	**70,398**			**29,560**	**23,441**			**98,985**	**71,071**			**96,048**	**69,606**		

Notes:
gpm - gallons per minute
psi - pounds per square inch
1. Injection duration indicates the total minutes of active injection per day, accounting for any downtime in injections that may have occurred throughout the day. Therefore, injection duration may be less than the difference in daily injection start and stop times indicated.
2. Carbon substrate solution is batch mixed. Batches of carbon substrate solution includes the following components in solution with Stabilized Lake Mead Water (SLMW): 2.5% molasses, 6.25% 0.5 Molar Sodium Bicarbonate Solution, 0.001% trace mineral solution, and 5 milligrams per liter Vitamin B12.
3. Distribution water solution is batch mixed. Batches of distribution water solution includes 0.0025 pounds of Vitamin C per gallon of Stabilized Lake Mead Water (SLMW).
4. System operations were temporarily suspended to perform system maintenance on November 9, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	3,080	12,800	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	2,850,000	26,900,000	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	3,110,000	21,100,000	<240,000	----	----	----	----	----	----	----	5,360,000	52,900	1,480,000	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	2,000,000	11,700,000	----	----	----	----	----	----	----	----	----	29,700	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	1,410,000	679	----	----	----	----	----	----	----	----	----	21,500	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	1,210,000	7,040,000	----	----	----	----	----	----	----	----	----	22,300	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	1,600,000	7,360,000	----	----	----	----	----	----	----	----	----	31,100 J+	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	886,000	4,550,000	----	----	----	----	----	----	----	----	----	15,000	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	955,000	6,010,000	<24,000	<117	<700	<33.3	109,000	109,000	<8,450	<8,450	1,480,000 J+	15,000 J-	388,000 J	<56.1	<5.15
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	1,340,000	6,790,000	<240,000	<117	<1,400	42.7 J	----	----	----	----	2,250,000	23,000	503,000	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	1,500,000	10,000,000	<240,000	<117	<1,400	64.2 J	----	----	----	----	2,290,000	23,200	513,000	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	1,280,000	7,880,000	<240,000	<117	<1,400	51.7 J	73,000	73,000	<8,450	<8,450	2,120,000	24,500 J-	469,000 J	143 J	<5.15
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	1,530,000	9,340,000	<240,000	<117	<1,400	<33.3	----	----	----	----	2,390,000	23,800	519,000	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	1,590,000	9,400,000	<24,000	<117	<1,400	84.9 J	----	----	----	----	1,870,000	16,200 J+	361,000 J	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	1,550,000	9,930,000	<24,000	<117	<1,400	38.4 J	79,000	79,000	<8,450	<8,450	2,410,000	26,800 J+	454,000 J	<56.1	<5.15
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	1,540,000	9,780,000	<24,000	<117	<700	<33.3	----	----	----	----	2,490,000	3,340	465,000	----	----
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	27,900	316,000	<2,400	----	----	----	----	----	----	----	234,000	2,360	1,220,000	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	30,800	326,000	<2,400	<117	<140	<33.3	139,000	<8,450	68,100	70,900	240,000	4,430	1,130,000	138 J	2.99 J
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	29,700	316,000	<2,400	<117	<140	50.4 J	126,000	<8,450	72,000	54,200	246,000	3,720 J	1,150,000	105 J	1.82 J
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	27,600	378,000	<2,400	<117	<140	<33.3	149,000	<8,450	82,400	66,800	281,000	6,040	1,150,000	60.6 J	2.01 J
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	91,200	381,000	<2,400	----	----	----	----	----	----	----	259,000	2,440	180,000	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	180,000	835,000	<2,400	<117	<140	<33.3	49,300	49,300	<8,450	<8,450	344,000	1,230	153,000	<56.1	<1.03
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	108,000	644,000	<2,400	<117	<140	<33.3	42,200	42,200	<8,450	<8,450	325,000	1,720	165,000	56.6 J	<1.03
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	457,000	505,000	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	75,100	564,000	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	2,500,000	19,700,000	<240000 R	----	----	----	----	----	----	----	4,560,000	45,200	1,020,000	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	41.5 J+	1,360	<24.0	<117	346	<33.3	140,000	140,000	<8,450	<8,450	108,000	357	229,000	<56.1	<1.03
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	219,000	1,670,000	<24,000	----	----	----	----	----	----	----	542,000	4,170	1,050,000	----	----
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	253,000	2,010,000	<24,000	----	----	----	----	----	----	----	706,000	6,420	1,030,000	----	----
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	394,000 J+	3,630,000	<24,000	<117	<560	<33.3	109,000	109,000	<8,450	<8,450	892,000	8,200	389,000	<56.1	<1.03
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	262,000	2,310,000	<24,000	----	----	----	----	----	----	----	693,000	----	----	----	----
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	262,000	2,590,000	<24,000	----	----	----	----	----	----	----	686,000	----	----	----	----
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	466,000	4,230,000	<24000 UJ	----	----	----	----	----	----	----	1,410,000	----	----	----	----
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	138,000	912,000	131,000	----	----	----	----	----	----	----	528,000	----	----	----	----
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	66,000	457,000	<24,000	----	----	----	----	----	----	----	347,000	----	----	----	----
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	24,800	197,000	500,000	----	----	----	----	----	----	----	334,000	----	250,000 J	----	----
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	54,700	497,000	103,000	----	----	----	----	----	----	----	375,000	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	1,040,000	5,060,000	<24,000	----	----	----	----	----	----	----	1,460,000	12,200	1,120,000	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	618 J+	2,490 J+	<240	<117	351	<33.3	140,000	140,000	<8,450	<8,450	109,000	311	234,000	<56.1	<1.03
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	428,000	2,390,000	<24000 R	----	----	----	----	----	----	----	842,000	7,430	1,020,000	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	75,800 J+	393,000	<2,400	<117	<140	116	143,000	143,000	<8,450	<8,450	218,000	374	253,000	<56.1	<1.03
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	274,000	1,140,000	<24,000	----	----	----	----	----	----	----	503,000	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	309,000	1,190,000	<24,000	----	----	----	----	----	----	----	604,000	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	194,000	913,000	64,100 J-	----	----	----	----	----	----	----	569,000	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	193,000	859,000	39,200 J	----	----	----	----	----	----	----	576,000	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	133,000	572,000	80,300	----	----	----	----	----	----	----	544,000	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	111,000	508,000	999,000	----	----	----	----	----	----	----	523,000	----	111,000	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	63,400	237,000	149,000	----	----	----	----	----	----	----	497,000	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	2,170,000	16,600,000	<24,000	----	----	----	----	----	----	----	4,310,000	48,700	1,420,000	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	1,320,000	8,100,000	<240,000	----	----	----	----	----	----	----	2,400,000	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	1,090,000	7,560,000	<240,000	----	----	----	----	----	----	----	1,950,000	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	1,110,000 J+	6,630,000	<240000 UJ	----	----	----	----	----	----	----	1,740,000	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	937,000	6,670,000	<240,000	----	----	----	----	----	----	----	1,730,000	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	948,000	6,890,000	<24,000	----	----	----	----	----	----	----	1,620,000	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	654,000 J-	6,260,000	<24,000	----	----	----	----	----	----	----	1,690,000	16,100	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	833,000 J+	6,370,000	<24,000	<117	<1,400	<33.3	131,000	131,000	<8,450	<8,450	1,700,000	12,100	591,000	<56.1	<5.15
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	948,000	6,990,000	<24,000	----	----	----	----	----	----	----	1,750,000	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	797,000	5,450,000	27,000 J	----	----	----	----	----	----	----	1,530,000	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	835,000	5,650,000	<240000 UJ	----	----	----	----	----	----	----	1,870,000	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	963,000	6,280,000	<240,000	----	----	----	----	----	----	----	2,180,000	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	934,000	6,410,000	<240,000	----	----	----	----	----	----	----	2,360,000	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	1,030,000	7,790,000	<24,000	----	----	----	----	----	----	----	2,280,000	----	537,000	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	1,100,000	7,760,000	<24,000	----	----	----	----	----	----	----	2,340,000	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,270,000	12,100,000	<24,000	----	----	----	----	----	----	----	2,640,000	27,800	508,000	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	29.6 J+	1,200	<24.0	<117	345	35.3 J	142,000	142,000	<8,450	<8,450	106,000	328	235,000	<56.1	<1.03
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	47,900	793,000	<2,400	----	----	----	----	----	----	----	321,000	3,940	1,090,000	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	1,020,000 J+	11,600,000	<240,000	<117	<1,400	<33.3	128,000	128,000	<8,450	<8,450	2,810,000	<480	709,000	<56.1	<5.15
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,900,000	11,600,000	<240,000	----	----	----	----	----	----	----	2,770,000	4,770	758,000	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	269	1,560	<24.0	304	636	49.9 J	151,000	151,000	<8,450	<8,450	110,000	<48.0	237,000	<56.1	<1.03
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	164,000	993,000	<24,000	----	----	----	----	----	----	----	400,000	3,290	1,100,000	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	181,000	1,030,000	<24,000	<117	<140	92.3 J	142,000	142,000	<8,450	<8,450	368,000	4,630	363,000	<56.1	<1.03
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	320,000	4,550,000	<24000 R	<117	<1,400	33.3 R	68,700	68,700	<8,450	<8,450	1,150,000	12,200	214,000	81.0 J	<1.03
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	36,400	660,000	<2,400	<117	<700	33.3 R	96,800	96,800	<8,450	<8,450	355,000	3,550	1,220,000	87.1 J	<1.03
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	35,900	553,000	<12,000	<117	<700	33.3 R	96,100	96,100	<8,450	<8,450	345,000	3,660	1,300,000	68.8 J	<1.03
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	367,000	4,900,000	<240,000	----	----	----	----	----	----	----	1,140,000	----	----	----	----
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	243,000	3,180,000	<240,000	----	----	----	----	----	----	----	895,000	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	133,000 J+	1,860,000	25,700 J	----	----	----	----	----	----	----	572,000	----	----	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	346,000	5,170,000 J-	<240,000	----	----	----	----	----	----	----	1,340,000	----	----	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	313,000	4,250,000	<24,000	----	----	----	----	----	----	----	1,200,000	----	----	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	145,000	1,550,000	63,600	----	----	----	----	----	----	----	753,000	<960 R	----	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	163,000	2,300,000	<24,000	----	----	----	----	----	----	----	905,000	----	----	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	490,000	7,840,000	<24,000	----	----	----	----	----	----	----	1,920,000	----	----	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	431,000	5,570,000	<240000 UJ	----	----	----	----	----	----	----	1,670,000	----	----	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	440,000	6,040,000	<240,000	----	----	----	----	----	----	----	1,680,000	----	----	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	461,000	6,900,000	<24,000	----	----	----	----	----	----	----	1,900,000	----	----	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	171,000	2,810,000	31,700 J	----	----	----	----	----	----	----	949,000	----	379,000	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	119,000	2,010,000	<24,000	----	----	----	----	----	----	----	766,000	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,700,000	18,500,000	<240,000	<117	<7,000	<33.3	120,000	----	----	----	3,780,000	56,100	965,000	<280	<10.3
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	301,000	4,470,000	<24,000	<117	<7,000	194 J+	179,000	----	----	----	723,000	10,200	1,120,000	117 J	1.17 J
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	948,000	7,420,000	<240,000	----	----	----	----	----	----	----	1,810,000	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	877,000	6,410,000	<240,000	----	----	----	----	----	----	----	1,580,000	----	----	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	891,000	6,320,000	<240000 UJ	----	----	----	----	----	----	----	1,490,000	----	----	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	855,000	7,100,000	531,000	----	----	----	----	----	----	----	1,720,000	----	----	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	858,000	7,680,000	<24,000	----	----	----	----	----	----	----	1,690,000	----	----	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	768,000 J-	7,090,000	<24,000	----	----	----	----	----	----	----	1,770,000	14,200	----	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	738,000	6,690,000	<24,000	----	----	----	----	----	----	----	1,630,000	----	----	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	561,000	5,320,000	<24,000	----	----	----	----	----	----	----	1,600,000	----	----	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	618,000	5,540,000	<24000 UJ	----	----	----	----	----	----	----	1,530,000	----	----	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	667,000	6,050,000	<24,000	----	----	----	----	----	----	----	1,750,000	----	----	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	672,000	5,870,000	<24,000	----	----	----	----	----	----	----	1,860,000	----	----	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	689,000	7,300,000	<24,000	----	----	----	----	----	----	----	2,080,000	----	685,000	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	687,000	7,380,000	<24,000	----	----	----	----	----	----	----	2,020,000	----	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,570,000	20,600,000	<240,000	<117	<7,000	<33.3	131,000	----	----	----	4,180,000	63,500	948,000	<280	<10.3
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	1,330,000	12,000,000	<240,000	----	----	----	----	----	----	----	2,780,000	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	1,200,000	15,000,000	<240,000	----	----	----	----	----	----	----	2,490,000	----	----	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	1,110,000 J+	9,590,000	<240000 UJ	----	----	----	----	----	----	----	2,210,000	----	----	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	1,140,000	10,900,000	<240,000	----	----	----	----	----	----	----	2,400,000	----	----	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	1,070,000	9,600,000	<240,000	----	----	----	----	----	----	----	2,140,000	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	1,130,000	8,690,000	<240,000	----	----	----	----	----	----	----	2,370,000	14,600	----	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	930,000	779,000	<24,000	----	----	----	----	----	----	----	2,140,000	----	----	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	910,000	8,830,000	<24,000	----	----	----	----	----	----	----	2,060,000	----	----	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	859,000	7,060,000	<240000 UJ	----	----	----	----	----	----	----	1,930,000	----	----	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	921,000	8,980,000	<24,000	----	----	----	----	----	----	----	2,010,000	----	----	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	464,000	7,850,000	<24,000	<117	<3,500	<33.3	76,100	76,100	<8,450	<8,450	1,710,000	19,200	475,000	106 J	<10.3
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	130,000	2,210,000	<24,000	<117	<1,400	52.3 J	105,000	105,000	<8,450	<8,450	638,000	9,440	1,100,000	<56.1	1.07 J
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	412,000	3,430,000	<24,000	<117	<1,400	33.3 R	59,100	51,600	<8,450	<8,450	895,000	11,200	550,000	102 J	<1.03
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	407,000	3,550,000	<24,000	<117	<1,400	33.3 R	114,000	114,000	<8,450	<8,450	911,000	10,400	711,000	115 J	<1.03
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	708,000	5,180,000	<24,000	----	----	----	----	----	----	----	1,040,000	5,360	437,000	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	647,000	6,010,000	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	1,140,000	4,300,000	<24,000	<117	<560	<33.3	126,000	126,000	<8,450	<8,450	955,000	8,720	429,000	<56.1	<1.03
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	469,000	3,100,000	<24000 UJ	<117	<280	40.0 J	78,100	78,100	<8,450	<8,450	723,000	2,400	385,000	<56.1	<10.3
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	429,000	3,000,000	<24,000	<117	<280	<33.3	85,200	85,200	<8,450	<8,450	727,000	6,890	356,000	<56.1	<5.15
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	29,800	217,000	<2,400	----	----	----	----	----	----	----	191,000	230	214,000	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	28,500	202,000	<2,400	----	----	----	----	----	----	----	191,000	259	214,000	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	307,000	2,140,000	<24,000	<117	<140	108	62,600	62,600	<8,450	<8,450	539,000	4,730	249,000	<56.1	<1.03
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	239,000	1,480,000	<24000 UJ	<117	<140	87.1 J	36,300	36,300	<8,450	<8,450	430,000	3,700	279,000	<56.1	<10.3
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	267,000	2,110,000	<24,000	<117	<140	<33.3	46,600	46,600	<8,450	<8,450	437,000	4,470 J+	242,000	<56.1	<1.03
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	410,000	3,510,000	<24,000	----	----	----	----	----	----	----	920,000	5,610	590,000	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	679,000	5,140,000	<24,000	<117	<280	<33.3	339,000	339,000	<8,450	<8,450	1,420,000	13,400	458,000 J	61.0 J	1.22 J
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	485,000	3,060,000	<24000 UJ	<117	<560	51.7 J	75,300	75,300	<8,450	<8,450	772,000	6,470	383,000	270 J+	<1.03
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	532,000	3,980,000	<24,000	<117	<280	<33.3	81,500	81,500	<8,450	<8,450	850,000	7,850	348,000	67.7 J	<5.15
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	37,300	312,000	<2,400	----	----	----	----	----	----	----	289,000	2,730	1,290,000	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	22,600	241,000	3,630 J	<117	<140 UJ	39.4 J	142,000	131,000	10,300 J	<8,450	261,000	5,680	1,190,000	56.8 J	<1.03
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	28,100	288,000	<2,400	<117	<140 UJ	37.6 J	129,000	119,000	9,840 J	<8,450	270,000	1,190 J-	1,170,000	<56.1	<1.03
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	21,300	251,000	<2,400	<117	<140 UJ	<33.3	138,000	126,000	12,100 J	<8,450	286,000	2,760 J-	1,200,000	63.4 J	<1.03
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	2,850,000	24,800,000	<240,000	----	----	----	----	----	----	----	6,150,000	72,300	993,000	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	3,530,000	28,400,000	----	----	----	----	----	----	----	----	----	84,600	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	3,790,000	27,900,000	----	----	----	----	----	----	----	----	----	81,900	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	3,590,000	23,500,000	----	----	----	----	----	----	----	----	----	73,900	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	3,140,000	23,800,000	----	----	----	----	----	----	----	----	----	63,000	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	3,220,000	21,700,000	----	----	----	----	----	----	----	----	----	70,200	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	2,190,000	19,700,000	<240,000	<117	<1,400	<33.3	126,000	126,000	<8,450	<8,450	4,810,000	53,100 J-	943,000	<56.1	<10.3
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	3,080,000	21,900,000	<240,000	<117	<5,600	64.6 J	----	----	----	----	5,540,000	68,100	1,210,000	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	2,720,000	25,300,000	<240,000	<117	<2800 R	55.1 J	----	----	----	----	5,200,000	64,000	1,140,000	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	2,820,000	17,800,000	<240,000	<117	<2,800	98.1 J	129,000	129,000	<8,450	<8,450	4,360,000	55,000	906,000	<280	<10.3
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	2,780,000	21,200,000	<240,000	<117	<2800 UJ	<33.3	----	----	----	----	5,070,000	<480	1,140,000	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	2,620,000	16,900,000	<240,000	<117	<1,400	<33.3	----	----	----	----	4,680,000	72,000	1,140,000	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	2,210,000	18,500,000	<480,000	<117	<2,800	148	140,000	140,000	<8,450	<8,450	4,350,000	54,700	1,010,000	84.2 J	<20.6
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	2,450,000	21,600,000	<240,000	<117	<2,800	<33.3	----	----	----	----	4,900,000	57,900	1,150,000	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	291,000	2,420,000	<24,000	----	----	----	----	----	----	----	808,000	9,670	1,200,000	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	891,000	5,380,000	----	----	----	----	----	----	----	----	----	15,300	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	1,190,000	7,270,000	----	----	----	----	----	----	----	----	----	23,800	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	1,200,000	6,610,000	----	----	----	----	----	----	----	----	----	20,600	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	103,000	707,000	----	----	----	----	----	----	----	----	----	<4800 R	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	105,000	737,000	----	----	----	----	----	----	----	----	----	<4800 R	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	619,000	4,490,000	----	----	----	----	----	----	----	----	----	13,300	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	620,000	4,410,000	----	----	----	----	----	----	----	----	----	13,100	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	1,490,000 J+	12,600,000	----	----	----	----	----	----	----	----	----	35,000	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	1,410,000 J+	12,000,000	----	----	----	----	----	----	----	----	----	37,500	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	1,300,000	12,000,000	<240,000	<117	<1,400	<33.3	311,000	311,000	<8,450	<8,450	3,130,000	33,700 J-	981,000	<56.1	<5.15
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	133,000 J	12,300,000	<240,000	<117	<1,400	<33.3	306,000	306,000	<8,450	<8,450	3,120,000	32,300 J-	935,000	<56.1	<5.15
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	33,000	211,000	<2,400	<117	1,780	34.1 J	----	----	----	----	237,000	208 J+	74,700	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	32,200	212,000	<2,400	<117	1,560	<33.3	----	----	----	----	240,000	222 J+	74,900	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	35,000	187,000	37,600	<117	894	38.4 J	----	----	----	----	521,000	<48.0	374,000	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	35,800	190,000	32,800	<117	1,030	43.2 J	----	----	----	----	510,000	<48.0	372,000	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	56,200	174,000	8,820 J-	<117	<140	60.1 J	1,130,000	1,130,000	<8,450	<8,450	611,000	1,790	267,000	<56.1	<1.03
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	57,500	170,000	9,030 J-	<117	<140	43.8 J	1,160,000	1,160,000	<8,450	<8,450	611,000	1,340	265,000	<56.1	<1.03
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	158	<120	33,900 J-	<117	1,400	<33.3 UJ	----	----	----	----	452,000	56.3 J	736 J	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	159	<240	37,300 J-	<117	1,400	35.4 J	----	----	----	----	457,000	56.0 J	761 J	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	435,000	3,240,000	<24,000	<117	<1,400	56.9 J	----	----	----	----	1,480,000	5,410	377,000	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	429,000	3,120,000	<24,000	<117	<700	<33.3	----	----	----	----	1,630,000	5,230	406,000	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	239,000	1,430,000	118,000 J+	<117	<140	<33.3	1,490,000	1,490,000	<8,450	<8,450	1,490,000	779 J	299,000	<56.1	<5.15
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	246,000	1,360,000	128,000 J+	<117	<140	34.8 J	1,490,000	1,490,000	<8,450	<8,450	1,490,000	<48.0	298,000	<56.1	<5.15
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	678,000	5,630,000	<24,000	<117	<700	<33.3	----	----	----	----	2,360,000	4,260	672,000	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	692,000	5,640,000	<24,000	<117	<700	<33.3	----	----	----	----	2,350,000	4,960	673,000	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	1,430,000	9,200,000	<240,000	----	----	----	----	----	----	----	2,110,000	22,400	534,000	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	997,000	7,490,000	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	1,070,000	6,830,000	<24,000	<117	<1,400	<33.3	62,000	62,000	<8,450	<8,450	1,550,000	16,100	363,000	76.8 J	<5.15
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	985,000	7,070,000	<24,000	<117	<1,400	<33.3	62,100	62,100	<8,450	<8,450	1,520,000	15,800	358,000	76.7 J	<5.15
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	1,050,000	5,910,000	<24,000	<117	<700	<33.3	62,800	62,800	<8,450	<8,450	1,330,000	11,000	337,000 J	<56.1	<5.15
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	1,300,000	7,370,000	<24,000	<117	<700	<33.3	130,000	130,000	<8,450	<8,450	1,690,000	21,700 J+	437,000 J	<56.1	<5.15
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	152,000	735,000	<2,400	----	----	----	----	----	----	----	319,000	1,180	255,000	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	5,060	24,200	<240	<117	<140	128	88,000	88,000	<8,450	<8,450	140,000	1,290	159,000	<56.1	<1.03
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	229	7,040	<120	<117	<140	121	81,800	81,800	<8,450	<8,450	134,000	447	163,000	<56.1	<1.03
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	1,720	6,610	<120	<117	<140	95.7 J	87,400	83,800	<8,450	<8,450	140,000 J-	1,300	170,000	<56.1	<1.03
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	207,000	1,200,000	<24,000	----	----	----	----	----	----	----	391,000	3,990 J	1,080,000	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	930,000	5,940,000	<24,000	<117	<700	<33.3	96,300	96,300	<8,450	<8,450	1,340,000	9,430	335,000	<56.1	<1.03
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	954,000	5,330,000	<24,000	<117	<1,400	46.2 J	73,900	73,900	<8,450	<8,450	1,290,000	13,400	373,000	144 J	<5.15
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	983,000	5,480,000	<24,000	<117	<1,400	<33.3	73,700	73,700	<8,450	<8,450	1,290,000	13,300	373,000	125 J	<5.15
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	1,270,000	6,400,000	<24,000	<117	<1,400	<33.3	136,000	136,000	<8,450	<8,450	1,600,000	17,900 J	402,000 J	19,800	<5.15
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	1,340,000	6,880,000	<24,000	<117	<1,400	<33.3	142,000	142,000	<8,450	<8,450	1,660,000	37,500 J	499,000 J	14,900	<5.15
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	26,500	262,000	<2,400	----	----	----	----	----	----	----	222,000	1,750	1,160,000	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	26,200	264,000	<2,400	----	----	----	----	----	----	----	215,000	1,680	1,180,000	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	54,600	389,000	<2,400	<117	<140	72.7 J	260,000	152,000	109,000	<8,450	241,000	4,110	1,040,000	<56.1	<1.03
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	57,800	431,000	<2,400	<117	<140	71.7 J	226,000	191,000	35,000	<8,450	259,000	3,030	1,010,000	<56.1	<1.03
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	46,400	359,000	<2,400	<117	<140	<33.3	358,000	319,000	38,900	<8,450	313,000	4,650	989,000	<56.1	<1.03
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	3,270,000	26,400,000	<240,000	----	----	----	----	----	----	----	5,690,000	53,500	1,160,000	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	427,000	3,370,000	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	42,200	2,770,000	<24,000	<117	<280	<33.3	169,000	169,000	<8,450	<8,450	680,000 J+	10,400	326,000 J	<56.1	<1.03
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	306,000	1,970,000	<24,000	<117	<560	<33.3	280,000	280,000	<8,450	<8,450	612,000	3,710 J	291,000	<56.1	<5.15
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	527,000	3,430,000	<24,000	<117	<280	<33.3	202,000	202,000	<8,450	<8,450	842,000	6,060	266,000	<56.1	<5.15
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	1,100,000	10,700,000	<24,000	----	----	----	----	----	----	----	2,460,000	23,300	1,150,000	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	1,880,000	7,880,000	<240,000	<117	<1,400	<33.3	111,000	111,000	<8,450	<8,450	2,080,000	25,300	591,000	<56.1	<5.15
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	735,000	6,020,000	<24,000	<117	<1,400	37.2 J	307,000	307,000	<8,450	<8,450	1,470,000	15,000 J-	411,000 J	<56.1	<5.15
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	1,540,000	13,500,000	<240,000	<117	<1,400	41.5 J	179,000	179,000	<8,450	<8,450	3,240,000	40,000 J+	729,000	<56.1	<10.3
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	2,240,000	13,600,000	<240,000	----	----	----	----	----	----	----	4,020,000	46,500	1,400,000	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	2,930,000	12,500,000	----	----	----	----	----	----	----	----	----	42,000	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	1,780,000	8,150,000	----	----	----	----	----	----	----	----	----	24,900	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	2,000,000 J+	7,730,000	----	----	----	----	----	----	----	----	----	27,600	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	1,720,000	6,020,000	----	----	----	----	----	----	----	----	----	27,200 J+	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	1,210,000	5,810,000	----	----	----	----	----	----	----	----	----	22,100	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	1,070,000	5,680,000	<24,000	<117	<1,400	73.2 J	132,000	132,000	<8,450	<8,450	1,630,000	17,200	558,000	<56.1	<5.15
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	757,000	3,130,000	<24,000	<117	<1,400	<33.3	----	----	----	----	1,160,000	14,200 J+	441,000 J	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	581,000	2,040,000	<24,000	<117	<140	66.8 J	----	----	----	----	1,230,000	2,620	439,000	----	----
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	379,000	1,170,000	<24,000	<117	<140	38.7 J	1,130,000	1,130,000	<8,450	<8,450	1,250,000	<240	305,000	<56.1	7.74 J
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	683,000	2,170,000	<24,000	<117	<140	<33.3	----	----	----	----	1,750,000	3,090	388,000	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	940,000	3,610,000	<24,000	<117	<560	<33.3	----	----	----	----	1,950,000	9,660	485,000	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	323,000	937,000	<24,000	<117	<140	<33.3	1,590,000	1,590,000	<8,450	<8,450	1,410,000	752 J	217,000	<56.1	8.82
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	654,000	2,740,000	24,500 J	<117	<700	<33.3	----	----	----	----	2,020,000	6,150	282,000	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	1,220,000	8,940,000	<24,000	----	----	----	----	----	----	----	2,380,000	26,000	1,300,000	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	2,760,000	12,200,000	----	----	----	----	----	----	----	----	----	40,500	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	2,180,000	10,700,000	----	----	----	----	----	----	----	----	----	37,200 J-	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	1,810,000	8,360,000	----	----	----	----	----	----	----	----	----	33,100	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	1,590,000	6,270,000	----	----	----	----	----	----	----	----	----	25,600 J+	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	1,240,000	6,080,000	----	----	----	----	----	----	----	----	----	21,000	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	1,020,000 J+	4,840,000	<24,000	<117	<1,400	60.9 J	216,000	216,000	<8,450	<8,450	1,500,000	11,600	641,000	107 J	<5.15
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	174,000	434,000	41,400	<117	<140	<33.3	----	----	----	----	631,000	<480	386,000	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	73,900	104,000	204,000	<117	<140	54.4 J	----	----	----	----	598,000	<480	283,000	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	4,030	19,700	80,600 J-	<117	2,000	46.2 J	1,820,000	1,820,000	<8,450	<8,450	710,000	<48.0	83,700	<56.1	12.9
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	563,000	1,510,000	38,000 J	<117	<140	<33.3	----	----	----	----	1,740,000	2,320	420,000	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	488,000	1,210,000	<24,000	<117	<140	100 J	----	----	----	----	1,850,000	1,070	410,000	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	443,000	6,170,000	<120,000	<117	<140	<33.3	2,010,000	2,010,000	<8,450	<8,450	1,980,000	<480	366,000	<56.1	<5.15
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	431,000	1,020,000	<24,000	<117	<140	2,680	----	----	----	----	2,240,000	840 J	358,000	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	4,270,000	17,900,000	<240,000	----	----	----	----	----	----	----	4,670,000	48,100	1,160,000	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	1,130,000 J+	7,290,000	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	405,000	7,000,000	<240,000	<117	<1,400	<33.3	101,000	101,000	<8,450	<8,450	1,890,000	20,800	501,000	<56.1	<1.03
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	1,350,000	5,310,000	<240,000	<117	<560	45.7 J	87,100	87,100	<8,450	<8,450	1,830,000	16,600 J-	467,000 J	89.9 J	<5.15
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	1,800,000	7,990,000	28,600 J	<117	<1,120	<33.3	870,000	870,000	<8,450	<8,450	2,460,000	15,000	455,000	<56.1	<5.15
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	201,000	801,000	<24,000	----	----	----	----	----	----	----	353,000	146 J+	967,000	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	1,810,000 J+	7,820,000	<240,000	<117	<1,400	<33.3	138,000	138,000	<8,450	<8,450	2,130,000	15,200	655,000	<56.1	<5.15
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	1,380,000	5,070,000	<240,000	<117	<1,400	50.1 J	237,000	237,000	<8,450	<8,450	2,100,000	14,800 J-	556,000	<56.1	<5.15
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	1,840,000	8,310,000	<24,000	<117	<1,120	<33.3	702,000	702,000	<8,450	<8,450	2,270,000	14,700	456,000 J	94.4 J	<5.15
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	471,000	5,210,000	<24,000	----	----	----	----	----	----	----	1,260,000	13,500	568,000	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	76,400	413,000	----	----	----	----	----	----	----	----	----	1,240	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	61,100	383,000	----	----	----	----	----	----	----	----	----	1,230	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	53,800	391,000	----	----	----	----	----	----	----	----	----	1,220	----	----	----
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	53,300	283,000	----	----	----	----	----	----	----	----	----	1,050	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	66,700	336,000	----	----	----	----	----	----	----	----	----	1,140 J+	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	43,000	263,000	----	----	----	----	----	----	----	----	----	1,030	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	400,000	278,000	<2,400	<117	<140	39.5 J	119,000	119,000	<8,450	<8,450	167,000	756	230,000	<56.1	<1.03
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	120,000	888,000	49,500 J	<117	<140	37.0 J	----	----	----	----	426,000	1,300	237,000	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	41,700	111,000	179,000	<117	1,570	<33.3	----	----	----	----	318,000	<48.0	67,300	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	76,400	305,000	74,400 J-	<117	777	38.2 J	1,480,000	1,480,000	<8,450	<8,450	620,000	500	71,600	<56.1	<1.03
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	656,000	5,770,000	<24,000	<117	<1,400	<33.3	----	----	----	----	1,950,000	8,830	596,000	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	548,000	4,600,000	28,000 J	<117	<1,400	<33.3	----	----	----	----	1,960,000	11,800 J+	543,000	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	500,000	4,320,000	<24,000	<117	<560	<33.3	1,290,000	1,290,000	<8,450	<8,450	1,750,000	<240	367,000	<56.1	<5.15
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	481,000	4,580,000	75,100	<117	<700	<33.3	----	----	----	----	2,060,000	5,160 J+	468,000	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	140,000	1,150,000	<24,000	----	----	----	----	----	----	----	463,000	4,200	1,190,000	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	69,100 J-	426,000	----	----	----	----	----	----	----	----	----	1,290	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	63,700	445,000	----	----	----	----	----	----	----	----	----	1,280	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	66,800	346,000	----	----	----	----	----	----	----	----	----	1,180	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	86,700	428,000	----	----	----	----	----	----	----	----	----	1,140 J+	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	51,000 J+	515,000	----	----	----	----	----	----	----	----	----	1,440	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	325,000	637,000	<2,400	<117	<140	<33.3	130,000	130,000	<8,450	<8,450	249,000	2,010	253,000	<56.1	<1.03
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	135,000	746,000	3,190 J	<117	<140	35.3 J	----	----	----	----	662,000	<480	379,000	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	1,810	1,130	80,000	<117	831	48.0 J	----	----	----	----	591,000	74.4 J	302,000	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	48.3	2,620	<120	<117	820	118 J+	1,450,000	1,450,000	<8,450	<8,450	788,000	<48.0 UJ	212,000	<56.1	<1.03
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	391,000	2,940,000	<24,000	<117	<140	<33.3	----	----	----	----	1,570,000	<240	537,000	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	261,000	1,740,000	43,200 J	<117	<140	<33.3	----	----	----	----	1,480,000	412 J	392,000	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	287,000	1,330,000	155,000 J+	<117	<140	<33.3	2,150,000	2,150,000	<8,450	<8,450	1,800,000	<240	366,000	<56.1	<5.15

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	213,000	1,170,000	205,000	<117	<140	<33.3	----	----	----	----	1,560,000	1,070 J+	293,000	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	1,640,000	2,450,000	<24,000	<117	<2,800	68.2 J	184,000	184,000	<8,450	<8,450	4,960,000	71,400	1,130,000	<280	<10.3
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	889,000	10,400,000	<240,000	<117	<1,400	63.8 J	219,000	219,000	<8,450	<8,450	2,730,000	26,500	603,000	<92.5	<5.15
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	821,000	9,450,000	<240,000	<117	<1,400	<33.3	919,000	919,000	<8,450	<8,450	2,780,000	27,700 J-	421,000 J	<56.1	<5.15
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	1,210,000	11,100,000	<240,000	<117	<2,800	66.6 J	545,000	545,000	<8,450	<8,450	3,330,000	21,700	486,000 J	102 J	<10.3
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	1,300,000	16,600,000	<240,000	<117	<1,400	<33.3	236,000	236,000	<8,450	<8,450	4,010,000	53,800	860,000	<56.1	<10.3
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	25,700	281,000	<2,400	<117	<140	146 J+	89,800	89,800	<8,450	<8,450	213,000	1,520	210,000	<56.1	<1.03
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	23,800	294,000	<2,400	<117	<140	133 J	84,300	84,300	<8,450	<8,450	227,000	1,610	230,000	<56.1	<1.03
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	8,820	55,300	<12,000	<117	<140	191 J-	111,000	111,000	<8,450	<8,450	175,000	282	179,000	<18.5	1.33 J
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	170,000	966,000	<24,000	<117	<140	162	57,900	57,900	<8,450	<8,450	406,000	1,360	163,000	<56.1	<1.03
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	146,000	806,000	<24,000	<117	<140	102 J+	55,200	55,200	<8,450	<8,450	368,000	691 J-	163,000	<56.1	<1.03
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	75,000	514,000	<2,400	<117	<140	89.2 J	78,200	78,200	<8,450	<8,450	262,000	1,390	160,000	<56.1	<1.03
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	152,000	2,550,000	<24,000	<117	<700	55.5 J	175,000	166,000	9,060 J	<8,450	768,000	7,610	1,160,000	92.7 J	<1.03
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	609,000	5,800,000	<240,000	<117	<700	46.0 J	164,000	164,000	<8,450	<8,450	1,660,000	19,200	941,000	<92.5	<5.15
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	566,000	4,980,000	<240,000	<117	<700	<33.3 UJ	----	----	----	----	1,530,000	17,000	948,000	<92.5	<5.15
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	872,000	9,870,000	<240,000	<117	<1400 R	<33.3	243,000	243,000	<8,450	<8,450	2,290,000	26,700 J-	796,000	<56.1	<5.15
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	243,000	2,360,000	<24,000	<117	<140 R	41.4 J	631,000	631,000	<8,450	<8,450	968,000	946 J	702,000	<56.1	<10.3
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	578,000	6,670,000	72,300 J+	<117	<560 R	<33.3	526,000	526,000	<8,450	<8,450	1,990,000	13,300 J-	710,000	68.2 J	<5.15
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	11,600	154,000	<2,400	<117	<140	<33.3	57,500	15,500 J	42,000	<8,450	227,000	3,430	1,280,000	<56.1	<1.03
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	5,150	52,300	<480	<117	755 J	77.4 J	417,000 J	417,000 J	<8,450	<8,450	222,000	1,410	1,050,000	<18.5	<1.03
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	5,740	55,200	<480	<117	226 J	74.1 J	299,000 J	299,000 J	<8,450	<8,450	217,000	1,460	1,070,000	<18.5	<1.03
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	98.0 J	2,860 J	<24.0	<117	639	243	1,150,000	1,150,000	<8,450	<8,450	192,000	<48.0	297,000	63.0 J	<1.03
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.300 UJ	<240 UJ	<240	<117	723	246	1,370,000	1,370,000	<8,450	<8,450	187,000	<48.0	250,000	<56.1	<1.03
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.300	<120	<120	<117	1,850 J	105 J+	1,460,000	1,460,000	<8,450	<8,450	189,000	<480	18,800 J	<56.1	<1.03
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.300	276	<120	<117	1,200 J	98.0 J	1,460,000	1,460,000	<8,450	<8,450	187,000	<480	2,640 J	<56.1	<1.03
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.300	1,350	<24.0	<117	1,450	53.0 J	1,680,000	1,680,000	<8,450	<8,450	195,000	57.9 J	1,540 J	<56.1	<1.03
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.300	1,370	<24.0	<117	1,600	71.1 J	1,690,000	1,690,000	<8,450	<8,450	196,000	50.7 J	1,780 J	<56.1	<10.3
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	1,770,000	14,600,000	<240,000	<117	<1,400	58.0 J	179,000	179,000	<8,450	<8,450	3,270,000	43,200	877,000	<56.1	<10.3
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	209,000 J+	1,480,000	<24000 UJ	<117 UJ	<280 UJ	<33.3 UJ	136,000	136,000	<8450 UJ	<8450 UJ	439,000	<4800 UJ	274,000 J	<18.5 UJ	<1.03 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	189,000	1,240,000	24,900	<117	<140 R	<33.3	905,000	905,000	<8,450	<8,450	909,000	756 J	200,000	59.0 J	<1.03
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	114,000	698,000	4,790 J	<117	<140	<33.3	955,000	955,000	<8,450	<8,450	865,000	2,090 J-	123,000	<56.1	<1.03
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	219,000	1,300,000	<24,000	<117	<140	<33.3	1,160,000	1,160,000	<8,450	<8,450	1,410,000	1,540	129,000	<56.1	8.48
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	25,200	110,000	<2,400	<117	<140	84.5 J	98,100	91,300	<8,450	<8,450	172,000	1,060	178,000	<56.1	<1.03
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	12,200 J+	48,600	<2400 UJ	<117 UJ	<140 UJ	46.8 J	83,000	83,000	<8450 UJ	<8450 UJ	159,000	963	179,000	<18.5 UJ	<1.03 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	88,700	387,000	<2,400	<117	<140	37.1 J	61,000	61,000	<8,450	<8,450	257,000	1,770	151,000	<56.1	<1.03
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	89,700	329,000	<2,400	<117	<140	50.2 J	66,300	66,300	<8,450	<8,450	245,000	1,520	148,000	<56.1	<1.03
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	143,000	464,000	3,710 J	<117	<140	<33.3	340,000	340,000	<8,450	<8,450	508,000	<48.0	106,000	<56.1	<1.03
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	78,700	439,000	<2,400	<117	<140	120 J+	109,000	109,000	<8,450	<8,450	242,000	3,120	1,100,000	<56.1	<1.03
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	448,000 J+	2,560,000	<240000 UJ	<117 UJ	<140 UJ	<33.3 UJ	133,000	133,000	<8450 UJ	<8450 UJ	715,000	7,720 J	431,000 J	<92.5 UJ	<5.15 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	340,000	2,090,000	<24,000	<117	<140	<33.3	723,000	723,000	<8,450	<8,450	946,000	2,140	292,000	<56.1	<1.03
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	198,000	519,000	<2,400	<117	<140	<33.3	1,040,000	1,040,000	<8,450	<8,450	1,100,000	1,280 J-	202,000	<56.1	1.05 J
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	316,000	1,780,000	<24,000	<117	<140	<33.3	1,110,000	1,110,000	<8,450	<8,450	1,430,000	1,620	183,000	<56.1	1.58 J
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	14,800	91,400	<2,400	<117	<140	76.5 J	141,000	123,000	17,900 J	<8,450	182,000	2,260	964,000	<56.1	<1.03
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	91,500	503,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	258,000	238,000	20,400	<8450 UJ	256,000	3,360	1,020,000	<18.5 UJ	<1.03 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	84,500	474,000	<2,400	<117	<140	44.7 J	265,000	249,000	15,300 J	<8,450	373,000	1,820	822,000	<56.1	<1.03
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.300	199 J	150,000 J-	<117	1,790	129 J+	2,290,000	2,280,000	<8,450	<8,450	161,000	<48.0	26,900	<56.1	<1.03
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.300	1,470 J+	<120	181 J	2,320	99.4 J	2,920,000	2,920,000	<8,450	<8,450	163,000	<48.0	3,600 J	<56.1	<10.3
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	118,000	2,180,000	<24,000	<117	<700	<33.3	93,000	93,000	<8,450	<8,450	706,000	4,090	340,000	<56.1	<1.03
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	82,300	956,000	<24,000	<117	<140	<33.3 UJ	60,800	60,800	<8,450	<8,450	383,000	1,720	180,000	<56.1	<1.03
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	10,600	74,700	101,000	<117 UJ	966 J+	<33.3	1,200,000	1,200,000	<8,450	<8,450	478,000	<48.0	74,500	<56.1	<1.03
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	789	4,000	<120	<117	776	<33.3	1,010,000	1,010,000	<8,450	<8,450	453,000	<48.0 UJ	2,780 J	<56.1	<1.03
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	15,900	164,000	<2,400	<117	937	<33.3	725,000	725,000	<8,450	<8,450	760,000	<48.0	174,000	<56.1	1.36 J
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	141,000	2,330,000	<24,000	<117	<1,400	65.7 J	187,000	187,000	<8,450	<8,450	936,000	8,520	1,300,000	<56.1	<1.03
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	8,680	96,300	<2,400	<117	<140	<33.3 UJ	144,000	144,000	<8,450	<8,450	219,000	1,200	1,180,000	<56.1	<1.03

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	14,700 J-	138,000	<2,400	<117	1,220 J+	<33.3	1,010,000	1,010,000	<8,450	<8,450	897,000	94.2 J	295,000	<56.1	<1.03
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	1,440	14,200	<240	<117	1,260	39.0 J	1,410,000	1,410,000	<8,450	<8,450	262,000	352 J	5,490	<56.1	<1.03
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	4,990	29,500	<240	314	3,060	<33.3	1,390,000	1,390,000	<8,450	<8,450	686,000	<48.0	273,000	<56.1	<1.03
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	1,290,000	20,100,000	<240,000	<117	<3,500	71.7 J	201,000	201,000	<8,450	<8,450	4,040,000	62,300	880,000	<280	<10.3
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	1,350,000	20,700,000	<120,000	<117	<700	118 J-	----	----	----	----	3,720,000	47,900	751,000	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	1,410,000	19,000,000	<240,000	<117	<2,800	42.1 J	----	----	----	----	4,260,000	55,600	886,000	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	1,380,000	18,400,000	<240,000	153 J	<2,800	<33.3	----	----	----	----	3,850,000	51,800	768,000	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	561,000	8,610,000	<240000 UJ	<117 UJ	<2800 UJ	97.7 J	279,000	279,000	<8450 UJ	<8450 UJ	1,750,000	14,700	482,000 J	<1850 UJ	<103 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	1,190,000	17,600,000	<240,000	<117	<2,800	<33.3	----	----	----	----	3,940,000	41,000	740,000	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	1,130,000	14,300,000	<240,000	<117	<1400 UJ	<33.3	----	----	----	----	3,660,000	47,200	746,000	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	996,000 J-	13,600,000	<240,000	<117	<1,400	<33.3	406,000	406,000	<8,450	<8,450	3,030,000	29,700	603,000	94.7 J	<5.15
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	64,300	9,540,000	<240,000	<117	<1400 R	64.3 J	----	----	----	----	2,330,000	27,400	448,000 J	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	617,000 J	9,600,000	<240,000	<117	<700 R	50.8 J	----	----	----	----	2,610,000	27,200	664,000	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	1,080,000	14,200,000	<240,000	<117	<1,400	46.9 J	286,000	286,000	<8,450	<8,450	3,420,000	27,700 J-	657,000	<56.1	<5.15
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	997,000	12,800,000	<240,000	<117	<2800 R	36.9 J	----	----	----	----	2,850,000 J+	24,600 J-	524,000	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	813,000	11,200,000	<240,000	<117	<700 R	<33.3 UJ	----	----	----	----	3,270,000	<480 R	662,000	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	825,000 J-	11,500,000	<240,000	<117	<1,120	<33.3	444,000	444,000	<8,450	<8,450	3,240,000	13,500	637,000	<56.1	<5.15
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	791,000	11,800,000	<240,000	<117	<1400 R	174 J+	----	----	----	----	3,050,000	18,700	586,000	----	----
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	98,700	1,550,000	<24000 R	<117	<1,400	210 J+	96,300	92,500	<8,450	<8,450	512,000	7,100	1,080,000	<56.1	<1.03
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	33,000	266,000	54,400	<117	968	739 J	----	----	----	----	328,000	<48.0	694,000	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	34,400	265,000	53,300	<117	792	35.9 J	----	----	----	----	328,000	<48.0	694,000	----	----
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	530	<2,400	66,800	<117	970 J	<33.3 UJ	----	----	----	----	363,000	<48.0	508,000	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	476	2,400 J	66,100	<117	1,230 J	102 J	----	----	----	----	362,000	<48.0	509,000	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	2,900 J	7,470 J	66,500	<117	1,100 J	<33.3	----	----	----	----	321,000	<48.0	273,000	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	1,800 J	3,470 J	84,800	<117	1,560 J	<33.3	----	----	----	----	316,000	<48.0	244,000	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.300 UJ	<2400 UJ	<2400 UJ	191 J	1,030 J	59.1 J	1,320,000	1,320,000	<8450 UJ	<8450 UJ	386,000	<48.0 UJ	27,000 J	<18.5 UJ	5.80
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	198 J	<2400 UJ	<2400 UJ	178 J	1,340 J	41.8 J	1,320,000	1,320,000	<8450 UJ	<8450 UJ	371,000	<48.0 UJ	42,600 J	<18.5 UJ	3.56 J
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	381	2,380	81.2 J+	124 J	1,160	<33.3	----	----	----	----	346,000	50.1 J	74,100	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	389	2,220	<24.0	120 J	1,050	<33.3	----	----	----	----	338,000	54.5 J	72,600	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	213,000	3,030,000	<24,000	572	<140	<33.3	----	----	----	----	1,000,000	7,230	160,000	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	264,000	3,530,000	<24,000	535	<140	33.4 J	----	----	----	----	1,090,000	8,170	185,000	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	70.0	<2,400	<2,400	<117 UJ	1,170	50.0 J	1,720,000	1,720,000	<8,450	<8,450	298,000	<48.0	979 J	<56.1	2.20 J
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	87.0	<2,400	<2,400	<117 UJ	1,270	63.6 J	1,750,000	1,750,000	<8,450	<8,450	292,000	<48.0	1,060 J	91.7 J	1.97 J
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	1,390	10,400 J	<120	<117	1,850 J	43.3 J	----	----	----	----	267,000	<48.0	17,300	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	1,590	17,100 J	<120	<117	1,130 J	36.6 J	----	----	----	----	282,000	<48.0	19,700	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	423	4,830 J	<240 UJ	<117	1,120	44.9 J	----	----	----	----	262,000	<48.0	7,200	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	478	3,070 J	<24.0	<117	1,150	<33.3	----	----	----	----	263,000	<48.0	7,860	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	23.4	<120	<120	<117	1,050 J	83.8 J	1,280,000	1,280,000	<8,450	<8,450	190,000	<48.0	53,500	<56.1	<1.03
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	28.6	<120	<120	<117	1,460 J	118	1,290,000	1,290,000	<8,450	<8,450	190,000	<48.0	52,200	<56.1	<1.03
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	1,340	9,920	<240	<117	1,530	96.7 J	----	----	----	----	227,000	<48.0	22,600	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	1,310	10,700	<240	<117	1,520	133	----	----	----	----	225,000	<48.0	22,500	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	343,000	3,460,000	<24,000	<117	<140	46.4 J	----	----	----	----	2,000,000	5,850	1,290,000	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	342,000	3,390,000	<24,000	<117	<140	<33.3	----	----	----	----	1,970,000	3,190	1,280,000	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	396,000	5,100,000	<24,000	243 J	<560	<33.3	666,000	666,000	<8,450	<8,450	2,030,000	5,990	1,070,000	<56.1	<5.15
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	391,000	4,920,000	<24,000	223 J	<560	<33.3	672,000	672,000	<8,450	<8,450	2,110,000	6,440	1,110,000	<56.1	<5.15
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	597,000	9,720,000	<24,000	<117	<280	<33.3	----	----	----	----	2,600,000	1,500	632,000	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	616,000	9,710,000	<24,000	<117	<560	<33.3	----	----	----	----	2,600,000	1,390	633,000	----	----
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	1,280,000	14,400,000	<24,000	<117	<3,500	67.4 J	138,000	138,000	<8,450	<8,450	3,380,000	61,000	1,130,000	115 J	<10.3
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	793,000	8,490,000	<120,000	<117	<1,400	161 J-	----	----	----	----	2,080,000	29,800	696,000	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	1,070,000	9,510,000	<240,000	<117	<700	48.9 J	----	----	----	----	2,150,000	32,400	846,000	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	1,030,000	9,430,000	<240,000	<117	<7,000	<33.3	----	----	----	----	2,060,000	28,700	842,000	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	1,060,000	6,990,000	<240,000	<117	<700	45.3 J	218,000	218,000	<8,450	<8,450	2,010,000	22,700	818,000	<92.5	<5.15
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	918,000	8,540,000	<240,000	<117	<2,800	<33.3	----	----	----	----	1,900,000	21,600	624,000	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	617,000 J+	8,230,000	<24,000	<117	<1,400	<33.3	----	----	----	----	1,840,000	21,700	537,000	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	567,000 J+	6,130,000	<24,000	<117	<700	<33.3	302,000	302,000	<8,450	<8,450	1,610,000	10,100	468,000	<56.1	<5.15
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	1,080,000	8,070,000	<240,000	<117	<1,400	<33.3	----	----	----	----	1,970,000	19,500	714,000	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	1,070,000	8,420,000	<240,000	118 J	<700	<33.3	----	----	----	----	2,110,000	30,700	907,000	----	----
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	814,000	6,910,000	<240,000	<117	<700	62.1 J	148,000	148,000	<8,450	<8,450	1,840,000	16,500 J-	506,000	93.0 J	<5.15
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	366,000	4,230,000	<24,000	<117	<560	36.7 J	----	----	----	----	1,170,000	8,640	276,000	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	357,000	4,010,000	<24,000	<117	<280	<33.3	----	----	----	----	1,220,000	<240 UJ	279,000	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	256,000	3,370,000	<24,000	<117	<280	<33.3	369,000	369,000	<8,450	<8,450	1,180,000	9,300 J	269,000 J	<56.1	1.14 J
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	218,000	2,520,000	<24,000	<117	<140	<33.3 UJ	----	----	----	----	1,320,000	1,680 J-	252,000	----	----
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	424,000	4,000,000	<24,000	<117	<1,400	68.0 J	147,000	147,000	<8,450	<8,450	967,000	7,700	1,230,000	<56.1	3.92 J
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	420,000	3,920,000	<24,000	<117	<1,400	104 J+	139,000	139,000	<8,450	<8,450	968,000	8,310	1,220,000	61.1 J	1.29 J
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	51,500	535,000	<2,400	<117	<140	271 J-	----	----	----	----	278,000	2,190	1,080,000	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	35,100	475,000 J	<240000 R	<117 UJ	<140 UJ	42.6 J	----	----	----	----	280,000	535	1,030,000	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	28,800	170,000	<2400 UJ	<117	<140 UJ	<33.3	----	----	----	----	283,000	383	989,000	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	6,800	26,800	<12,000	<117	629 J+	<33.3	592,000	592,000	<8,450	<8,450	----	----	----	<18.5	1.36 J
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	6,630	28,700	<12,000	<117	739 J+	<33.3	----	----	----	----	----	----	----	21.6 J	1.26 J
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	2,450	24,100	<2,400	<117	579	<33.3	----	----	----	----	197,000	83.5 J	44,500	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	1,720 J+	16,900	46,000	<117	878	<33.3	----	----	----	----	169,000	99.2 J	24,700	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	269	1,800	31,200	<117	1,220	<33.3	1,560,000	1,560,000	<8,450	<8,450	151,000	<48.0	3,350 J	<56.1	<1.03
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	2.13 J	<24.0	<24.0	<117	1,270	53.9 J	----	----	----	----	152,000	48.0 J	1,600 J	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	36,700	<240	<240 UJ	<117	1,050	98.7 J	----	----	----	----	143,000	<48.0	894 J	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	9.08 J-	202 J	<120	<117	1,610	86.9 J	1,810,000	1,810,000	<8,450	<8,450	144,000 J-	<48.0 UJ	1,770 J	<56.1	<1.03
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	469	3,660	<240	<117	1,470 J-	50.4 J	----	----	----	----	157,000	56.8 J	9,270	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	238,000	2,110,000	<24,000	<117	<140	<33.3	----	----	----	----	1,170,000	4,190	616,000	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	31,900	109,000	<2,400	<117	679	209 J-	1,150,000	1,150,000	<8,450	<8,450	610,000	395	348,000	<56.1	1.45 J
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	321	1,700	<240	195 J	1,530	<33.3 UJ	----	----	----	----	234,000	<48.0 R	9,860	----	----
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	1,330,000	14,700,000	<240,000	<117	<1,400	115 J+	128,000	128,000	<8,450	<8,450	3,130,000	60,700	662,000	375 J	<10.3
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	401,000	5,370,000	<24,000	<117	<280	<33.3 UJ	----	----	----	----	1,330,000	10,900	336,000 J	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	413,000	4,100,000	<120,000	<117	<560	<33.3	----	----	----	----	1,400,000	6,780 J	379,000 J	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	433,000	4,080,000	<240,000	<117	<280	<33.3	----	----	----	----	1,300,000	6,960	295,000	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	411,000	3,380,000	<240,000	257	<700	<33.3	190,000	190,000	<8,450	<8,450	1,190,000	9,910 J	288,000 J	<92.5	<5.15
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	383,000	3,950,000	<240,000	<117	<280	<33.3	----	----	----	----	984,000	10,300	289,000 J	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	374,000 J+	3,490,000	<24,000	<117	<560	<33.3	----	----	----	----	820,000	12,000	296,000 J	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	337,000	3,160,000	<24,000	<117	<280	193	107,000	107,000	<8,450	<8,450	699,000 J+	8,410 J	280,000 J	<56.1	<1.03
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	224,000	1,910,000	<24,000	<117	<140	<33.3	----	----	----	----	567,000	<4,800	241,000 J	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	207,000	1,660,000	<24,000	<117	<140	<33.3	----	----	----	----	595,000	15,200 J-	259,000	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	241,000	1,840,000	<24,000	<117	<140	33.7 J	202,000	202,000	<8,450	<8,450	747,000	3,030	252,000	<56.1	<1.03
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	224,000	1,770,000	<24,000	<117	<140	<33.3	----	----	----	----	855,000	2,840	244,000	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	277,000	2,460,000	<24,000	<117	<560	42.6 J	----	----	----	----	876,000	5,230	241,000	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	288,000	3,190,000	<24,000	<117	<560	<33.3	189,000	189,000	<8,450	<8,450	1,030,000	4,860	255,000	<56.1	<1.03
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	314,000	3,130,000	<24,000	<117	<700	<33.3	----	----	----	----	1,070,000	6,420	258,000	----	----
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	418,000	4,180,000	<24,000	<117	<1,400	109 J+	116,000	116,000	<8,450	<8,450	943,000	7,030	1,090,000	<56.1	<1.03
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	233,000	1,720,000	<12,000	<117	<280	79.5 J	----	----	----	----	487,000	9,130 J	1,040,000	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	212,000	1,410,000	<24,000	<117	<140	50.5 J	----	----	----	----	441,000	5,560	1,060,000	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	149,000	830,000	<24,000	<117	<140	<33.3	----	----	----	----	402,000	3,730	932,000	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	69,200	337,000	<24000 UJ	122 J	<140 UJ	<33.3 UJ	599,000	599,000	<8450 UJ	<8450 UJ	467,000	<48.0 UJ	545,000	<18.5 UJ	2.00 J
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	59,400	261,000	<24,000	<117	<140	75.6 J	----	----	----	----	447,000	360	433,000	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	117,000	790,000	<24,000	183 J	<140	<33.3	----	----	----	----	521,000	1,780	399,000	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	2,680 J+	12,500	<240	<117	959 J	66.8 J	1,100,000	1,100,000	<8,450	<8,450	341,000	<48.0	55,400	<56.1	1.14 J
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	1,350	4,660	<240	<117	848	54.7 J	----	----	----	----	287,000	<48.0	115,000	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	5,630	52,900	<240	582	1,360	122 J+	----	----	----	----	234,000	<48.0	77,800	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	9,360 J-	53,200	<2400 UJ	138 J	859	47.6 J	1,160,000	1,160,000	<8,450	<8,450	225,000	<48.0	97,300	<56.1	6.01
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	13,600	94,400	<240	122 J	1,090	50.5 J	----	----	----	----	229,000	135	90,200	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	353,000	2,600,000	<24,000	284	<560	41.8 J	----	----	----	----	890,000	4,960 J+	340,000	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	327,000	3,300,000	<24,000	130 J	<560	38.5 J	222,000	222,000	<8,450	<8,450	1,020,000	5,460	311,000	<56.1	3.62 J

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	355,000	3,620,000	<24,000	<117	<280	<33.3 UJ	----	----	----	----	1,090,000	5,720 J-	317,000	----	----
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	140,000	462,000	<12,000	<117	<140	33.3 R	101,000	101,000	<8,450	<8,450	349,000	729 J	2,560,000	<56.1	<1.03
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	207,000 J+	1,300,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	71,300	71,300	<8450 UJ	<8450 UJ	432,000	3,700	946,000	20.6 J	<1.03 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	159,000	1,260,000	<24,000	<117	<140	38.2 J	85,900	85,900	<8,450	<8,450	316,000	2,420	387,000	<56.1	<1.03
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	119,000	57,700	<24,000	<117	<140	<33.3	175,000	175,000	<8,450	<8,450	379,000	1,230	453,000	<56.1	<1.03
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	75,100	627,000	<2,400	<117	<140	<33.3	569,000	569,000	<8,450	<8,450	656,000	856	179,000	<56.1	<1.03
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	181,000	506,000	<2,400	<117	<140	173 J+	77,600	70,500	<8,450	<8,450	274,000	2,490	1,410,000	<56.1	<1.03
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	249,000	1,060,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	87,400	87,400	<8450 UJ	<8450 UJ	401,000	2,700	1,490,000	<18.5 UJ	<1.03 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	427,000	1,200,000	<24,000	<117	<140	56.8 J	87,300	87,300	<8,450	<8,450	346,000	2,510	597,000	<56.1	<1.03
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	243,000	752,000	<24,000	<117	<140	69.3 J	258,000	258,000	<8,450	<8,450	404,000	970	733,000	<56.1	<1.03
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	133,000	683,000	<2400 UJ	<117	<140	45.3 J	521,000	521,000	<8,450	<8,450	623,000	658	438,000	<56.1	<1.03
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	141,000	2,400,000	<24,000	<117	<700	63.7 J	112,000	112,000	<8,450	<8,450	749,000	3,170	410,000	149 J	<1.03
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	75,300	1,220,000	<24,000	<117	<140	<33.3 UJ	108,000	108,000	<8,450	<8,450	458,000	1,220	225,000	<56.1	<1.03
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	61,600	1,070,000	<24,000	<117	<140	68.9 J	77,100	77,100	<8,450	<8,450	403,000	2,030	196,000	<56.1	<1.03
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	80,000	1,500,000	<24,000	<117	<140	37.7 J	95,600	95,600	<8,450	<8,450	489,000	2,020 J	193,000	<56.1	<1.03
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	68,000	1,100,000	<24,000	<117	<140	<33.3	75,600	75,600	<8,450	<8,450	419,000	1,650	196,000	<56.1	<1.03
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	1,380	19,700	<2,400	<117	<140	<33.3	108,000	100,000	<8,450	<8,450	152,000	878	214,000	<56.1	<1.03
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	20.1	1,580	<240	142 J	<140	36.9 J	82,600	77,800	<8,450	<8,450	144,000	1,260	177,000	<56.1	<1.03
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	14.5	<240	<240	<117	<140	52.3 J	81,600	79,300	<8,450	<8,450	141,000	1,470	165,000	62.9 J	<1.03
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	22.0	<120	<120	<117	<140	45.5 J	85,500	85,500	<8,450	<8,450	138,000	1,340	169,000	<56.1	<1.03
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	21.2	126 J	<120	<117	<140	<33.3	82,200	82,200	<8,450	<8,450	143,000	1,590	174,000	<56.1	<1.03
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	86,400	1,190,000	<24,000	<117	<140	85.9 J	233,000	----	----	----	420,000	5,590	1,070,000	<56.1	<1.03
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	84,200	862,000	<24,000	<117	<140	45.5 J	486,000	486,000	<8,450	<8,450	500,000	827	875,000	<56.1	1.24 J
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	376 J	<240	179,000	<117	2,510 J+	45.7 J	1,440,000	1,440,000	<8,450	<8,450	189,000	<48.0	1,640 J	<56.1	<1.03
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	13.4	<120	<120	131 J	2,050	81.8 J	1,460,000	1,460,000	<8,450	<8,450	226,000	<48.0 UJ	<594	<56.1	<1.03
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	93,500	1,400,000	<24,000	213 J	<140	<33.3	734,000	734,000	<8,450	<8,450	938,000	<48.0	223,000	<56.1	<1.03
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	3,800	36,100	<24.0	<117	<140	74.6 J	100,000	100,000	<8,450	<8,450	178,000	2,750	1,190,000	112 J	<1.03
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	663	<24,000	70,700	<117	2,030	143 J-	650,000	650,000	<8,450	<8,450	137,000	132	212,000	186 J	<1.03
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	21.6 J-	<240	<2,400	<117	810	185	1,500,000	1,500,000	<8,450	<8,450	155,000	<480	14,700 J	<56.1	<1.03
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.300	<120	<120	<117	7,440	257 J+	2,360,000	2,360,000	<8,450	<8,450	121,000	<48.0	12,200	<56.1	<1.03
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.300	253 J	<240	257 J-	15,700 J-	232	4,130,000	4,130,000	<8,450	<8,450	136,000	5,550 J	<59,400	<56.1	<1.03
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	1,670,000	15,000,000	<240,000	<117	<2,800	33.3 R	119,000	119,000	<8,450	<8,450	3,030,000	39,300	722,000	<56.1	<10.3
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	974,000	5,970,000	<240,000	<117 UJ	<700	<33.3 UJ	259,000	259,000	<8,450	<8,450	1,740,000	17,100	573,000	<56.1	<1.03
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	476,000 J+	4,140,000	<24,000	<117	<700	37.5 J	657,000	657,000	<8,450	<8,450	1,490,000	10,500	205,000	<56.1	<5.15
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	1,170,000	8,530,000	<240,000	208 J	<1,400	88.1 J	554,000	554,000	<8,450	<8,450	2,180,000	25,200	377,000 J	378	<10.3
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	629,000	5,870,000	<24,000	208 J	<700	<33.3	483,000	483,000	<8,450	<8,450	1,460,000	15,200	217,000	<56.1	<5.15
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	77,900	396,000	<240	<117	<140	87.1 J	94,500	----	----	----	229,000	569	623,000	<56.1	<1.03
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	49,600	146,000	<24,000	<117	<140	<33.3 UJ	99,100	99,100	<8,450	<8,450	188,000	260	444,000	<56.1	<1.03
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	35,700	163,000	<2,400	<117	<140	<33.3	98,200	98,200	<8,450	<8,450	171,000	512	369,000	<56.1	<1.03
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	28,800	110,000	<2,400	<117	<140 UJ	<33.3	93,500	93,500	<8,450	<8,450	162,000	<48.0	361,000	<56.1	<1.03
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	24,200	105,000	<480	<117	<140	<33.3	97,900	97,900	<8,450	<8,450	166,000	728	336,000	<56.1	<1.03
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	366,000	1,820,000	<24,000	<117	<700	33.3 R	60,000	42,800	17,200 J	<8,450	546,000	6,600	979,000	<56.1	<1.03
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	205	<2,400	<24,000	<117	943	<33.3 UJ	1,030,000	1,030,000	<8,450	<8,450	147,000	72.8 J	195,000	<56.1	<1.03
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	263	<24,000	82,400	<117 UJ	956	<33.3 UJ	1,060,000	1,060,000	<8,450	<8,450	144,000	73.1 J	179,000	<56.1	<1.03
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.300	<24.0	109,000	<117	1,760 J-	35.3 J	1,770,000	1,770,000	<8,450	<8,450	120,000	<48.0	2,340 J	<56.1	<1.03
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.300	<24.0	107,000	<117 UJ	1,910 J-	37.5 J	1,770,000	1,770,000	<8,450	<8,450	120,000	<48.0	1,760 J	<56.1	<1.03
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.300	<120	<120 UJ	<117	1,530	48.2 J	1,670,000	1,670,000	<8,450	<8,450	133,000	49.8 J	<594	61.2 J	<1.03
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.300	<120	<120 UJ	<117	1,470	47.4 J	1,640,000	1,640,000	<8,450	<8,450	132,000	49.6 J	<594	<56.1	3.28 J
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	1,080,000	6,830,000	<24,000	174 J	<1,400	49.2 J	401,000	401,000	<8,450	<8,450	1,660,000	4,520	498,000	<56.1	<1.03
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	926,000	6,880,000	<24,000	172 J	<1,400	<33.3	396,000	396,000	<8,450	<8,450	1,690,000	3,660	501,000	<56.1	<1.03
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	9,400	64,100	<240	<117	<140	<33.3	64,800	----	----	----	173,000	2,700	1,150,000	<56.1	<1.03
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	9,860	64,100	<240	<117	<140	33.3 R	64,400	----	----	----	171,000	2,850	1,140,000	<56.1	<1.03
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	1,030 J+	<2400 UJ	<2400 R	<117 UJ	522	68.4 J	174,000	174,000	<8450 UJ	<8450 UJ	173,000	<48.0 UJ	988,000	<18.5 UJ	<1.03 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.300	<24,000	84,200	<117	944	253	1,770,000	1,770,000	<8,450	<8,450	107,000	<48.0	<594	<56.1	<1.03

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Anions by E300.0/SW9065A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.300	<240	<240 UJ	<117	1,790	260 J+	1,860,000	1,860,000	<8,450	<8,450	113,000	<48.0	861 J	<56.1	<1.03
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.300	1,680 J	254,000	<117	1,270	322	1,220,000	1,220,000	<8,450	<8,450	129,000	<48.0	34,700	<56.1	<1.03
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	<0.300	4,220 J-	<240	<117	325	46.9 J	----	----	----	----	----	384	221,000	----	----
U4-T3	10/13/2022	N	EM02	N/A	N/A	928,000	7,380,000	<240,000	----	----	----	----	----	----	----	1,890,000	----	----	----	----
U4-T3	11/3/2022	N	EM03	N/A	N/A	887,000	7,450,000	<240,000	----	----	----	----	----	----	----	1,780,000	----	----	----	----
U4-T3	12/6/2022	N	EM04	N/A	N/A	766,000	5,280,000	<240000 UJ	----	----	----	----	----	----	----	1,250,000	----	----	----	----
U4-T3	1/9/2023	N	EM05	N/A	N/A	886,000	7,910,000	<240,000	----	----	----	----	----	----	----	1,850,000	----	----	----	----
U4-T3	2/13/2023	N	EM06	N/A	N/A	877,000	7,800,000	<24,000	----	----	----	----	----	----	----	1,770,000	----	----	----	----
U4-T3	3/13/2023	N	EM07	N/A	N/A	815,000	7,400,000	<24,000	----	----	----	----	----	----	----	1,810,000	14,500	----	----	----
U4-T3	4/19/2023	N	EM08	N/A	N/A	406,000	2,880,000	<24,000	----	----	----	----	----	----	----	885,000	----	----	----	----
U4-T3	5/18/2023	N	EM09	N/A	N/A	498,000	4,200,000	<24,000	----	----	----	----	----	----	----	1,230,000	----	----	----	----
U4-T3	6/12/2023	N	EM10	N/A	N/A	488,000	3,720,000	<240000 UJ	----	----	----	----	----	----	----	1,240,000	----	----	----	----
U4-T3	7/11/2023	N	EM11	N/A	N/A	451,000	3,990,000	<24,000	----	----	----	----	----	----	----	1,260,000	----	----	----	----
U4-T3	8/10/2023	N	EM12	N/A	N/A	252,000	2,110,000	30,400 J	----	----	----	----	----	----	----	879,000	----	----	----	----
U4-T3	9/11/2023	N	EM13	N/A	N/A	217,000	1,990,000	54,900 J+	----	----	----	----	----	----	----	836,000	----	292,000	----	----
U4-T3	10/16/2023	N	EM14	N/A	N/A	149,000	1,090,000	29,300 J	----	----	----	----	----	----	----	597,000	----	----	----	----

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	12.4	75.8	<0.330	<0.750	500,000	20,700	<0.840	<7.55	<18.0	<4.24	235,000	2.11 J	8.60	<4.08	----
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	9.84 J	117	<0.330	<0.750	775,000	35,400	<0.840	<7.55	<18.0	<4.24	380,000	3.41 J	7.87	<4.08	----
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	6.38 J	119	<0.330	<0.750	856,000	28,200	<0.840	25.0	<18.0	4.50 J	396,000	<0.934	10.2	<4.08	----
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	49.8	28.8	<0.330	<0.150	30,600	1,520	<0.840	1.58 J	<18.0	<0.849	155 J	<0.934	24.2	<0.816	----
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	60.3	7.04	<0.330	<0.150	22,200	1,760	1.83 J	2.35 J	<18.0	<0.849	149 J	<0.934	23.4	<0.816	----
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	47.6	20.1	<0.330	<0.150	25,400	1,640	<0.840	1.75 J	<18.0	1.05 J	142 J	2.49 J	21.7	1.01 J	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	4.03	661	<0.330	<0.150	382,000	91.0	<0.840	1.88 J	44.5 J	<0.849	21,100	21.9	7.34	<0.816	----
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	7.37	338	<0.330	<0.150	225,000	26.2	<0.840	<1.51	<18.0	<0.849	22,600	<0.934	5.67	6.46	----
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	1.52 J	133	<0.330	<0.150	84,300	3.28 J	<0.840	2.98 J	<18.0	<0.849	28,500	3.24 J	5.79	1.55 J	----
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	15.1	49.5	<0.330	<0.150	370,000	16,400	<0.840	<1.51	24.9 J	2.57	183,000	9.17 J	7.93	1.50 J	----
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	1.39 J	138	<0.330	<0.150	82,600	9.61 J	<0.840	2.84 J	33.4 J	<0.849	28,000	5.58 J	5.60	7.62	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	18.2	58.1	<0.330	<0.150	87,500	2,140	<0.840	<1.51	182	<0.849	34,100	25.4	6.14	<0.816	----
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	21.2	65.5	<0.330	<0.750	383,000	34,800	<0.840	16.8 J	<18.0	<4.24	190,000	3.76 J	13.1	<4.08	----
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	1.61 J	138	<0.330	<0.150	82,200	<1.40	<0.840	3.27 J	342	<0.849	27,900	4.47 J	4.87 J	4.33	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	18.6	82.7	<0.330	<0.750	872,000	58,500	<0.840	<7.55	20.6 J	<4.24	414,000	20.2	13.6	78.0	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	4.08	156	<0.330	<0.150	80,300	1.57 J	0.903 J	3.65 J	23.0 J	<0.849	27,900	253	5.45	7.12	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	32.9	30.3	<0.330	<0.150	59,400	7,780	<0.840	5.23	<18.0	<0.849	28,600	9.92 J	9.77	58.2	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	5.21	187 J	<0.330	<0.150	515,000 J	11,900 J	<0.840	<1.51	<18.0	<0.849	255,000 J	19.9	3.31 J	5.53	25.3 J
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	32.9	34.2	<0.330	<0.150	223,000	2,270	<0.840	2.20 J	<18.0	<0.849	88,400	8.86 J	13.6	<0.816	45.1 J
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	32.6	33.8	<0.330	<0.150	222,000	2,260	<0.840	3.02 J	<18.0	<0.849	87,900	8.46 J	13.9	<0.816	46.2 J
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	12.2 J	135	<1.65	<1.50	1,450,000	79,000	<4.20	<15.1	<90.0	<8.49	634,000	22.5 J	8.85 J	<8.16	<91.5
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	72.5	29.6 J+	<0.330	<0.150	157,000	15,100	<0.840	2.99 J	<18.0	<0.849	66,000	8.86 J	18.0	1.14 J	194 J
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	5.36 J	143	<1.65	<1.50	1,670,000	92,600	<4.20	<15.1	<90.0	<8.49	737,000	54.7	10.2 J	<8.16	<91.5
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	9.35 J	106	<0.330	<1.50	832,000	27,200	<0.840	<15.1	18.8 J	<8.49	360,000	23.2	<5.80	<8.16	172 J
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	30.8	27.1	<0.330	<0.150	215,000	9,660	<0.840	6.53	<18.0	<0.849	91,600	21.6	13.2	2.61	199 J
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	6.71	112	<0.330	<0.150	436,000	9,680	<0.840	<1.51	<18.0	<0.849	165,000	7.51 J	8.19	20.5	34.0 J
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	19.6	34.7	<0.330	<0.150	307,000	16,100	<0.840	4.02 J	<18.0	<0.849	133,000	7.93 J	11.6	2.29	<18.3
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	7.27	40.6	<0.330	<0.150	110,000	4,860	<0.840	6.39	<18.0	<0.849	62,300	<0.934	<1.16	<0.816	----
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	7.99 J	158	0.722 J	<1.50	421,000	19,800	<0.840	<15.1	<18.0	<8.49	240,000 J+	2.25 J	5.02 J+	<8.16	----
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	7.50 J	132	<0.330	<0.750	423,000	17,500	<0.840	8.15 J	<18.0	<4.24	230,000	3.88 J	4.70 J	<4.08	----
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	9.69	117	<0.330	<0.150	276,000	8,120	<0.840	3.13 J	<18.0	<0.849	125,000	11.3 J+	6.64	<0.816	----
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	4.73 J	109	<0.330	<1.50	246,000	9,010	<0.840	<15.1	<18.0	<8.49	108,000 J+	3.52 J	3.58 J	<8.16	----
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	5.37	119	<0.330	<0.150	290,000	9,630	<0.840	<1.51	<18.0	<0.849	126,000	8.70 J	5.18	<0.816	----
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	8.10	48.9	<0.330	<0.150	156,000	5,440	<0.840	7.21	<18.0	1.06 J	85,700	4.20 J	<1.16	<0.816	----
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	6.24	124	<0.330	<0.150	444,000	19,200	<0.840	4.18 J	<18.0 UJ	<0.849	252,000	1.32 J	5.17	2.49	----
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	6.96 J	131	<0.330	<0.750	548,000	18,700	2.50 J	8.54 J	32.0 J	<4.24	304,000	1.96 J	5.64	<4.08	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	57.0	12.1	<0.330	<0.150	15,200	1,290	<0.840	5.26	66.4 J	<0.849	4,240	<0.934	24.4	<0.816	----
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	52.7	13.3 J+	<0.330	<0.150	17,100	1,530	<0.840	<1.51	43.8 J	<0.849	3,920 J+	82.4	24.6	172	----
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	50.6	11.9	<0.330	<0.150	17,000	1,510	<0.840	<1.51	<18.0	<0.849	4,790	0.987 J	26.5	<0.816	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	6.71 J	142	<0.330	<1.50	1,230,000	94,700	<0.840	<15.1	<18.0	<8.49	636,000	5.23 J	16.0	<8.16	----
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	8.58 J	115	<1.65	<1.50	1,130,000	96,900	<4.20	<15.1	<90.0	<8.49	599,000 J+	4.80 J	14.7 J	<8.16	----
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	8.17 J	102	<0.330	<3.00	1,080,000	107,000	24.4 J	<30.2	27.3 J	<17.0	525,000	3.39 J	16.4	<16.3	----
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	23.8	96.6	<0.330	<0.750	581,000	61,100	<0.840	<7.55	<18.0	<4.24	294,000	221	23.4	103	----
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	23.3	97.1	<0.330	<0.750	555,000	61,000	<0.840	<7.55	<18.0	<4.24	289,000	229	23.8	99.2	----
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	60.7	72.6	<0.330	<0.150	129,000	515	2.84 J	4.33 J	236 J+	<0.849 UJ	82,700	972	7.65	46.0	----
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	60.1	69.8	<0.330	<0.150	124,000	491	2.71 J	7.48	214 J+	4.08 J	79,800	943	7.12	46.1	----
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	66.5	421	<0.330	<0.750	254,000	2,410	6.69 J	<7.55	322	<4.24	202,000	2,330	22.4	104	----
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	65.9	416	<0.330	<0.750	250,000	2,190	5.73 J	<7.55	346	4.25 J	199,000	2,310	20.9	105	----
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	7.03 J	138	<0.330	<0.750	692,000	28,100	<0.840	<7.55	<18.0	<4.24	369,000	8.20 J	4.49 J	<4.08	----
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	7.05 J	137	<0.330	<0.750	684,000	28,200	<0.840	<7.55	<18.0	4.90 J	369,000	2.65 J	5.12	<4.08	----
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	7.58 J	118	<0.330	<0.750	634,000	28,300	<0.840	<7.55	<18.0	<4.24	332,000	1.55 J	4.90 J	<4.08	----
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	6.25 J	130	<0.330	<0.750	681,000	31,400	<0.840	17.8 J	<18.0	<4.24	354,000	<0.934	6.42	<4.08	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	12.6	24.1	<0.330	<0.150	30,700	64.2	<0.840	<1.51	<18.0	<0.849	16,400	3.34 J	8.98	<0.816	----
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	12.7	25.8	<0.330	<0.150	30,700	48.5	<0.840	<1.51	<18.0	<0.849	16,600	1.74 J	8.83 J+	1.35 J	----
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	11.0	24.1	<0.330	<0.150	30,800	27.6	<0.840	<1.51	83.8 J	<0.849	16,000	3.27 J	8.47	1.26 J	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	7.08	121	<0.330	<0.150	600,000	25,400	<0.840	<1.51	<18.0	<0.849	325,000	5.11 J	5.12	<0.816	----
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	10.3	93.6	<0.330	<0.750	514,000	23,500	<0.840	<7.55	<18.0	<4.24	274,000	1.63 J	6.28	<4.08	----
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	11.3	95.9	<0.330	<0.750	529,000	24,400	<0.840	<7.55	<18.0	<4.24	284,000	1.57 J	7.16	<4.08	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	19.9	170	1.45 J	<0.750	717,000	27,800	7.31 J	9.56 J	5,590	9.18 J	458,000	416	3.18 J	8.15 J	----
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	18.2	157	1.05 J	<0.750	698,000	27,900	6.45 J	9.01 J	4,580	10.3 J+	434,000	312	3.98 J	7.49 J	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	122	10.8	<0.330	<0.150	4,160	2,290	<0.840	<1.51	<18.0	<0.849	584 J	3.04 J	20.8	<0.816	----
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	99.2	13.6	<0.330	<0.150	7,570	2,620	<0.840	<1.51	<18.0	<0.849	16,800	<0.934	21.4	<0.816	----
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	116	11.5	<0.330	<0.150	5,300	1,860	<0.840	<1.51	<18.0	1.51 J	1,230	1.29 J	26.2	1.23 J	----
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	23.4	10.5	<0.330	<0.150	43,100	2,740	<0.840	<1.51	<18.0	<0.849	23,700	1.08 J	<1.16	<0.816	----
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	23.9	50.3	<0.330	<0.750	166,000	11,100	2.01 J	<7.55	<18.0	<4.24	92,600	8.64 J	3.74 J	<4.08	----
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	10.8	93.1	<0.330	<0.750	314,000	17,200	<0.840	8.84 J	<18.0	<4.24	164,000	73.2	5.53	<4.08	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	15.1	17.4	<0.330	<0.750	141,000	7,070	<0.840	19.3 J	<18.0	<4.24	71,500	<0.934	1.55 J	<4.08	----
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	18.1	84.5	<0.330	<0.750	483,000	28,200	<0.840	<7.55	<18.0	<4.24	256,000	17.1	3.55 J	<4.08	----
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	12.5 J	132	<0.330	<1.50	1,240,000	58,800	<0.840	37.7 J	<18.0	<8.49	607,000	10.7	9.54	<8.16	----
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	34.2	60.8	<0.330	<0.750	258,000	28,700	<0.840	<7.55	<18.0	<4.24	129,000	2.45 J	15.8	<4.08	----
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	78.5	110	<0.330	<0.750	156,000	6,510	<0.840	<7.55	<18.0	<4.24	108,000	432	17.0	6.24 J	----
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	82.1	129	<0.330	<0.150	154,000	3,000	1.88 J	<1.51	<18.0	<0.849	137,000	714	12.0	7.62	----
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	41.1	57.4	<0.330	<0.750	234,000	30,300	<0.840	<7.55	490	<4.24	117,000	9.99 J	22.5	<4.08	----
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	200	367	<0.330	<0.150	116,000	468	<0.840	<1.51	742	<0.849	81,600	609	4.70 J	11.8	----
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	132	171	1.32 J	<0.750	162,000	991	4.93 J	10.7 J	<18.0	6.99 J	166,000	470	59.2	17.3	----
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	9.68	19.8	<0.330	<0.150	121,000	7,300	<0.840	<1.51	<18.0	<0.849	62,500	1.26 J	<1.16	<0.816	----
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	9.97 J	97.1	<0.330	<0.750	686,000	38,400	<0.840	18.1 J	<18.0	<4.24	370,000	10.4	6.49	<4.08	----
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	20.4	227	3.85	<0.750	748,000	30,100	3.39 J	15.7 J	20.9 J	<4.24	455,000	209	80.8	<4.08	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	17.0	78.4	<0.330	<0.750	642,000	40,000	<0.840	<7.55	<18.0	<4.24	322,000	3.27 J	13.6	<4.08	----
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	28.4	94.6	<0.330	<0.750	612,000	40,100	<0.840	22.5 J	<18.0	<4.24	352,000	37.1	10.8	<4.08	----
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	33.4	123	<0.330	<0.750	687,000	33,500	<0.840	<7.55	146	<4.24	420,000	102	9.96	<4.08	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	6.14	26.5	<0.330	<0.150	84,500	931	<0.840	<1.51	86.5 J	<0.849	39,700	1.27 J	3.84 J	<0.816	----
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	26.3	529	<0.330	<0.150	342,000	1,700	5.04 J	1.55 J	<18.0	<0.849	204,000 J+	2,920	3.64 J	32.4	----
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	32.9	140	2.31	<0.750	360,000	16,100	5.81 J	14.0 J	<18.0	<4.24	249,000	614	69.3	6.87 J	----
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	7.70	32.6	<0.330	<0.150	93,500	2,670	<0.840	<1.51	29.1 J	<0.849	46,800	0.976 J	3.33 J	0.924 J	----
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	76.2	256	<0.330	<0.150	159,000	161	3.08 J	<1.51	638	<0.849	108,000	971	2.53 J	6.14 J+	----
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	91.6	167	1.39 J	<0.750	188,000	4,220	6.58 J	12.6 J	<18.0	<4.24	218,000	600	57.7	22.7	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	10.8 J	144	<1.65	<1.50	1,610,000	112,000	<4.20	<15.1	<90.0	<8.49	707,000	37.2 J	11.9 J	<8.16	<91.5
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	8.66 J	81.9 J+	<0.950	<0.750	665,000	49,000	<0.298	<7.55	<140	<4.24	330,000	11.7 J	3.10 J	<4.08	----
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	17.0	131	<0.330	<0.750	532,000	40,100	<0.840	<7.55	<18.0	<4.24	378,000	40.2 J+	4.72 J	<4.08	----
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	15.1 J	147	<0.330	<1.50	719,000	56,200	<0.840	<15.1	<18.0	<8.49	542,000 J+	68.9	5.34 J+	<8.16	----
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	10.1 J	122	5.16	<1.50	1,100,000	90,000	9.79 J	31.5 J	<18.0	<8.49	557,000	39.7	117	<8.16	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	10.9	19.0	<0.330	<0.150	58,200	764	<0.840	<1.51	<18.0	<0.849	28,400	14.7	9.57	1.49 J	110 J
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	11.1	19.2	<0.330	<0.150	58,000	780	<0.840	<1.51	<18.0	<0.849	28,400	14.6	9.89	1.44 J	107 J
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	10.8	21.3	<0.190	<0.150	45,600	56.7	0.145 J	<1.51	<28.1	<0.849	23,100	31.7	10.9	3.15	----
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	6.32	90.8	<0.330	<0.150	167,000	1,300	<0.840	2.67 J	<18.0	0.963 J	92,600	2.52 J	4.92 J	1.72 J	----
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	6.79	78.6	1.14 J	<0.150	139,000	1,220	1.76 J	<1.51	18.3 J	<0.849	80,800	19.3	8.85	17.2 J+	----
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	6.97	43.8	<0.330	<0.150	82,400	504	<0.840	<1.51	40.2 J	1.42 J	45,200	2.85 J	8.49	1.61 J	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	43.1	20.6	<0.330	<0.150	107,000	8,950	<0.840	1.90 J	<18.0	<0.849	44,400	5.20 J	18.7	0.820 J	25.4 J
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	37.2	51.8 J+	<0.950	<0.750	355,000	31,400	1.54 J	<7.55	<140	<4.24	166,000	29.6	12.8 J	113	----
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	37.3	49.4 J+	<0.950	<0.750	349,000	31,000	1.41 J	<7.55	<140	<4.24	163,000	28.6	12.7 J	106	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	28.5	87.0	<0.330	<0.750	538,000	48,700	<0.840	<7.55	<18.0	<4.24	288,000	13.6 J+	16.2	29.8	----
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	39.7	26.7	<0.330	<1.50	129,000	11,200	<0.840	<15.1	<18.0	<8.49	78,400 J+	23.4	11.1 J+	9.78 J	----
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	45.6	62.2	2.30	<0.750	307,000	30,500	3.48 J	13.8 J	<18.0	<4.24	210,000	35.6	77.0	14.9	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	14.5	25.0	<0.330	<0.150	165,000	519	<0.840	<1.51	26.0 J	<0.849	3,570	<0.934	20.1	<0.816	<18.3
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	77.3	20.0	<0.190	<0.150	68,400	284	0.0886 J	<1.51	31.9 J	<0.849	30,800	10.2	20.4	3.02	----
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	76.3	19.4	<0.190	<0.150	67,600	275	0.0711 J	<1.51	39.7 J	<0.849	30,800	10.5	20.0	2.30	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	43.0	184	<0.330	<0.150	73,900	10.3	<0.840	<1.51	38.3 J	<0.849	61,700	428	3.71 J	1.37 J	----
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	42.3	174	<0.330	<0.150	68,900	8.64 J	<0.840	<1.51	54.4 J	<0.849	55,500	406	4.57 J	1.59 J	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	68.1 J	324	<0.330	<0.150	91,400	10.0 J	<0.840	<1.51	81.2 J	<0.849	68,300 J+	1,310	2.92 J	2.34	----
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	35.7 J	323	<0.330	<0.150	91,700	9.09 J	<0.840	<1.51	84.9 J	<0.849	66,600 J+	1,300	1.59 J	2.34	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	31.4	335	0.836 J	<0.150	118,000	25.4 J	2.00 J	<1.51	1,480	6.72	88,500	2,800	35.5	2.03	----
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	41.3	335	0.893 J	<1.50	117,000	15.2 J	1.94 J	<15.1	1,360	<8.49	87,600	2,750	35.9	<8.16	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	7.44 J	14.2	<0.330	<1.50	123,000	5,930	<0.840	<15.1	<18.0	<8.49	532,000	4.62 J	<1.16	<8.16	<18.3
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	33.5	50.7	<0.190 UJ	<0.150 UJ	145,000	7,460	0.202 J	<1.51 UJ	<28.1 UJ	<0.849 UJ	71,500	5.78	6.30	11.1	----
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	25.6	152	<0.330	<0.150	235,000	3,650	<0.840	1.58 J	30.6 J	<0.849	136,000	71.7	1.39 J	10.6	----
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	69.6	151	<0.330	<0.150	204,000	1,830	4.15 J	<1.51	<18.0	<0.849	144,000	536	8.71	13.9 J+	----
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	28.8	457	<0.330	<0.150	318,000	2,950	1.21 J	<1.51	80.7 J	<0.849	241,000	979	10.0	9.23	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	10.2	27.6	<0.330	<0.150	41,300	154	<0.840	3.53 J	18.0 J	<0.849	20,000	7.39 J	9.61	<0.816	221 J
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	11.7	28.5	<0.190 UJ	<0.150 UJ	39,300	137	<0.0596 UJ	<1.51 UJ	<28.1 UJ	<0.849 UJ	21,100	1.17 J	9.02	<0.816 UJ	----
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	9.50	65.3	<0.330	<0.150	76,600	199	<0.840	<1.51	<18.0	<0.849	43,200	2.54 J	5.69	7.63	----
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	7.53	64.8	<0.330	<0.150	81,500	117	<0.840	<1.51	<18.0	<0.849	45,600	6.67 J	6.80 J+	53.7	----
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	6.26	188	1.25 J	<0.150	167,000	13.8	5.65 J	<1.51	107	<0.849	97,000	300	40.7	32.1	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	24.8	16.6	<0.330	<0.150	114,000	2,350	<0.840	2.16 J	<18.0	<0.849	42,300	4.58 J	13.2	0.971 J	172 J
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	20.0	44.2	<0.950 UJ	<0.750 UJ	218,000	13,400	0.835 J	8.06 J	<140 UJ	<4.24 UJ	100,000	21.9 J	7.84 J	83.7	----
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	25.5	89.2	<0.330	<0.150	266,000	8,400	<0.840	<1.51	22.6 J	<0.849	153,000	44.5	3.36 J	105	----
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	33.0	107	<0.330	<0.150	224,000	2,550	2.84 J	<1.51	35.7 J	<0.849	160,000	251	4.93 J	32.4	----
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	30.1	281	<0.330	<0.150	328,000	5,550	<0.840	<1.51	<18.0	<0.849	251,000	458	8.86	23.7	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	46.2	17.5	<0.330	<0.150	72,400	398	<0.840	1.69 J	141	<0.849	30,200	5.72 J	19.0	<0.816	168 J
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	56.2	10.2	<0.190 UJ	<0.150 UJ	17,700	2,780	<0.0596 UJ	<1.51 UJ	<28.1 UJ	<0.849 UJ	7,810	1.21 J	14.0	1.83 J	----
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	46.3	17.1	<0.330	<0.150	15,100	2,360	<0.840	<1.51	25.0 J	1.12 J	7,010	4.65 J	27.9	1.63 J	----
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	113	88.3	<0.330	<0.150	18,200	45.2	<0.840	<1.51	96.5 J	<0.849	11,600	186	8.50 J+	14.6	----
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	123	402	0.397 J	<1.50	36,300	120	2.28 J	<15.1	586	<8.49	30,500	515	36.4	<8.16	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	8.78	58.7	<0.330	<0.150	275,000	5,290	<0.840	<1.51	<18.0	<0.849	134,000	23.5	8.67	<0.816	32.2 J
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	7.91	106	<0.330	<0.150	165,000	3,310	<0.840	<1.51	<18.0	<0.849	87,500	2.32 J	3.34 J	<0.816	----
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	33.0	413	<0.330	<0.150	230,000	196	1.20 J	2.98 J	421	<0.849	184,000	2,160	3.54 J	11.9	----
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	49.8	1,010	<0.330	<0.150	187,000	45.6	0.983 J	<1.51	502	<0.849	164,000	2,470	1.71 J	3.57 J+	----
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	11.2	783	1.31 J	<0.150	197,000	12.7	1.73 J	<1.51	2,470	<0.849	178,000	1,910	66.3	7.78	----
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	12.6	35.2	<0.330	0.369 J	278,000	5,960	<0.840	2.97 J	27.9 J	<0.849	135,000	25.2	17.8	1.08 J	194 J
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	42.8	13.3	<0.330	<0.150	180,000	490	<0.840	<1.51	<18.0	<0.849	87,800	34.4	16.9	<0.816	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	37.7	187	<0.330	<0.150	208,000	23.9	1.35 J	<1.51	266	1.14 J	157,000	917	11.2	58.9	----
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	19.4	697	<0.330	<0.150	159,000	45.1	<0.840	<1.51	1,070	<0.849	119,000	3,120	1.25 J	1.44 J	----
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	37.4	897	1.54 J	<0.150	225,000	38.7	2.53 J	2.78 J	15,200	<0.849	184,000	4,630	47.6	4.72	----
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	6.16 J	151	<1.65	<1.50	1,530,000	92,800	<4.20	<15.1	<90.0	<8.49	652,000	68.0	17.8 J	<8.16	315 J
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<18.0 UJ	107 J	<19.0 UJ	<15.0 UJ	1,200,000	75,700	<5.96 UJ	35.1 J	<2810 UJ	<84.9 UJ	601,000	<70.4 UJ	<34.8 UJ	<8.16 UJ	----
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	14.6	133	<0.330	<0.750	925,000	58,900	<0.840	<7.55	25.8 J	<4.24	499,000	88.2	9.80	<4.08	----
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	11.2 J+	131	0.381 J	<0.750	1,140,000	85,700	<8.40	32.6	<18.0	<4.24	596,000	136	11.7	<4.08	----
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	10.6	110	4.28	<0.750	851,000	58,400	19.5 J	22.4 J	20.0 J	<4.24	526,000	90.1	97.3	<4.08	----
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	17.5	24.6	<0.330	<0.150	161,000	6,040	<0.840	1.60 J	40.5 J	<0.849	47,100	10.4	18.7	1.07 J	202 J
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	112	459	<0.190 UJ	<0.150 UJ	140,000	77.4	0.243 J	<1.51 UJ	134	<0.849 UJ	89,300	577	2.21 J	3.32	----
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	96.5	463	<0.190 UJ	<0.150 UJ	140,000	76.1	0.242 J	<1.51 UJ	128	<0.849 UJ	88,400	564	1.46 J	2.79	----
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	63.1	554 J	<0.330	<0.150	158,000 J	54.2 J	<0.840	<1.51	271 J+	<0.849	117,000 J	1,250 J	<1.16	1.86 J	----
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	59.2	375 J	<0.330	<0.150	105,000 J	37.1 J	<0.840	<1.51	295 J+	<0.849	78,000 J	831 J	<1.16	1.87 J	----
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	53.5	449	<0.330	<0.150	133,000	40.6	<0.840	<1.51 UJ	607	<0.849	107,000	1,240	2.49 J	1.94 J	----
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	51.0	445	<0.330	<0.150	134,000	40.2	<0.840	11.4 J	629	<0.849	105,000	1,230	1.89 J	1.75 J	----
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	8.23 J	195	2.76	<0.750	501,000	2,820	17.6	17.6 J	18.0 J	<4.24	373,000	2,400	82.6	80.7	----
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	7.62 J	203	2.87	<0.750	515,000	2,820	17.8	17.6 J	<18.0	<4.24	385,000	2,440	81.2	82.1	----
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	6.66 J	115	<0.330	<1.50	1,230,000	72,500	<4.20	<15.1	92.3 J	<8.49	501,000	59.4	15.8 J	<8.16	365 J
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	14.8	64.9 J+	<0.950	<0.750	662,000	48,500	<0.298	<7.55	<140	<4.24	300,000	23.4 J	8.18 J	<4.08	----
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	15.0	98.4	<0.330	<0.750	596,000	32,900	<0.840	<7.55	29.5 J	<4.24	286,000	37.2	7.27	<4.08	----
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	9.72 J	97.4	<0.330	<0.750	646,000	37,600	<0.840	18.2 J	<18.0	<4.24	334,000	79.3	8.08	<4.08	----
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	8.71	96.9	<0.330	<0.150	397,000	11,900	<0.840	<1.51	<18.0	<0.849	232,000	50.0 J+	5.17	1.11 J	----
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	14.6	48.2	<0.330	2.51 J	317,000	17,200	<0.840	3.24 J	18.3 J	2.29	126,000	44.1	17.6	4.10 J	122 J
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	12.6	47.3	<0.330	<0.150 UJ	314,000	16,700	<0.840	2.11 J	41.4 J	<0.849	125,000	44.4	17.7	1.90 J	265 J+
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	108	20.7	<0.190	<0.150	86,600	63.3	0.171 J	<1.51	<28.1	<0.849	44,500	264	15.7	2.09	----
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	108	20.7	<0.190	<0.150	86,400	64.8	0.173 J	<1.51	41.2 J	<0.849	44,600	264	16.2	3.19	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	47.2	439	<0.330	<0.150	127,000	15.9	1.39 J	<7.55	243	<0.849	89,200	1,200	1.40 J	<4.08	----
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	46.5	564	<0.330	<0.150	141,000	25.7	<0.840	<1.51	1,420	<0.849	121,000	1,920	<1.16	1.81 J	----
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	5.09	99.2	<0.330	<0.150	154,000	20.0	<0.840	<1.51	32.3 J	<0.849	121,000	1,080	146	4.28	----
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	5.43 J	173	<1.65	<1.50	1,520,000	55,300	<4.20	<15.1	<90.0	<8.49	664,000	32.9 J	9.95 J	<8.16	140 J
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	7.37 J	100	<0.950	<0.750	494,000	17,900	<0.298	<7.55	<140	<4.24	276,000	92.8	2.40 J	<4.08	----
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	5.75	76.8	<0.330	<0.150	303,000	12,900	<0.840	<1.51	<18.0	<0.849	150,000	40.4 J+	4.44 J	0.893 J	----
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	6.27	69.5	<0.330	<0.150	261,000	9,000	<0.840	1.84 J	<18.0	<0.849	146,000	44.0	2.60 J	0.858 J	----
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	6.15	92.8	<0.330	<0.150	364,000	12,500	1.97 J	5.42	<18.0	3.07 J+	211,000	51.6	3.59 J	1.42 J	----
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	12.6	43.5	<0.330	<0.150	395,000	20,300	<0.840	<1.51	<18.0	<0.849	169,000	28.6	13.8	1.80 J	132 J
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	79.2	19.6	<0.190 UJ	<0.150 UJ	100,000	892	0.138 J	<1.51 UJ	32.3 J	<0.849 UJ	48,300	161	9.01	2.47	----
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	74.9	239	<0.330	0.223 J	66,300	255	<0.840	<1.51	52.5 J	<0.849	44,100	228	5.96	2.33	----
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	73.1	395	<0.330	<0.150	61,700	151	<0.840	<1.51	500	<0.849	54,900	381	12.0 J+	3.27	----
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	20.6	127	<0.330	<0.150	341,000	12,600	3.13 J	<1.51	<18.0	3.32 J+	210,000	197	4.85 J	2.18	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	21.3	33.5	<0.330	<0.150	561,000	308	<0.840	3.44 J	<18.0	<0.849	152,000	79.2	41.2	9.04	<18.3
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	14.6	56.2	<0.190 UJ	<0.150 UJ	395,000	6,790	<0.0596 UJ	<1.51 UJ	40.3 J	1.09 J	128,000	21.5	5.90	<0.816 UJ	----
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	13.2	52.1	<0.330	<0.150	181,000	4,500	<0.840	3.77 J	65.8 J	<0.849	71,500	14.2 J+	3.16 J	<0.816	----
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	14.4	49.1	<0.330	<0.150	224,000	4,270	<0.840	<1.51	<18.0	<0.849	85,000	17.7	4.70 J	<0.816	----
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	15.3	191	<0.330	<0.150	219,000	2,540	<0.840	5.59	<18.0	<0.849	126,000	283	7.16	3.52	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	16.6	23.1	<0.330	<0.150	237,000	2,150	<0.840	<1.51	<18.0	<0.849	52,400	19.0	16.2	1.09 J	191 J
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	17.1	49.4	<0.190 UJ	<0.150 UJ	524,000	4,710	0.0650 J	<1.51 UJ	<28.1 UJ	<0.849 UJ	139,000	32.4	9.57	1.12 J	----
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	14.1	49.1	<0.330	<0.150	250,000	4,510	<0.840	<1.51	<18.0	<0.849	79,600	11.1 J+	5.22	<0.816	----
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	17.7	129	<0.330	<0.150	263,000	700	<0.840	1.54 J	<18.0	<0.849	115,000	214	7.41 J+	8.26	----
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	20.7	63.8	<0.330	<0.150	296,000	2,060	<0.840	1.60 J	<18.0	<0.849	123,000	85.8	5.72	5.21	----
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	9.66	56.0	<0.330	<0.150	338,000	4,940	<0.840	<1.51	21.8 J	<0.849	157,000	26.1	9.77	0.944 J	<18.3
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	10.6	49.7	<0.330	<0.150	208,000	3,170	<0.840	<1.51	<18.0	<0.849	92,400	10.3	6.33	<0.816	----
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	8.49	56.3	<0.330	<0.150	156,000	3,210	<0.840	2.97 J	<18.0	<0.849	80,100	5.33 J	6.57	<0.816	----
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	9.43	61.7	<0.330	<0.150	197,000	3,870	<0.840	<1.51	<18.0	<0.849	99,200	25.2	7.40	<0.816	----
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	10.0	50.3	1.26 J	<0.150	185,000	3,310	1.23 J	<1.51	<18.0	<0.849	89,900	10.3	45.5	5.43	----
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	18.8	21.3	<0.330	<0.150	34,000	64.4	<0.840	2.23 J	162	<0.849	15,400	2.57 J	10.4	2.78	<18.3
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	16.8	25.2	<0.330	<0.150	32,300	16.3	<0.840	<1.51	<18.0	<0.849	16,800	5.61 J	7.88	31.6	----
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	13.4	25.3	<0.330	<0.150	30,600	13.8	<0.840	1.53 J	45.7 J	4.52 J+	17,300	7.24 J	8.41	44.8	----
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	8.61	24.1	<0.330	<0.150	32,300	7.06 J	<0.840	<1.51	29.4 J	<0.849	17,000 J+	14.9 J+	12.7 J+	57.6	----
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	13.7	22.6	<0.330	<0.150	28,400	3.78 J	<0.840	<1.51	40.0 J	<0.849	16,000	5.65 J	9.31	17.7	----
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	31.1	20.5 J+	<0.330	<0.150	127,000	5,510	<0.840	<1.51	24.4 J	<0.849	56,500	14.9	17.8	<0.816	25.2 J
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	44.9	24.9	<0.330	<0.150	163,000	5,040	<0.840	<1.51	<18.0	<0.849	73,800	61.8	11.5	2.11	----
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	39.0	874	<0.330	<0.150	194,000	108	<0.840	<1.51	7,360	<0.849	137,000	4,380	<1.16	2.63	----
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	83.2	629	<0.330	<0.150	178,000	89.2	1.25 J	<1.51	5,050	<0.849	136,000	3,610	<1.16	2.53 J+	----
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	26.8	509	<0.330	<0.150	180,000	42.6	1.59 J	<1.51	143	<0.849	145,000	1,240	32.2	50.1	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	35.0	21.0	<0.330	<0.150	166,000 J	268 J	<0.840	<1.51	95.9 J	<0.849	50,100 J	2.61 J	19.2	<0.816	50.3 J
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	49.4	419	<0.330	<0.150	197,000	16.9	<0.840	<1.51	3,440	<0.849	61,300	465	1.18 J	2.37	----
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	44.0	217	<0.330	<0.150	94,100	9.67 J	1.30 J	<7.55	<18.0	<0.849	56,900	267	<1.16	<4.08	----
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	40.4	360	<0.330	0.278 J	96,700	9.11 J	<0.840	<1.51	154 J+	<0.849	69,600 J+	354	<1.16	1.34 J	----
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	80.5	694	<0.330	<0.150	135,000	11.0	<0.840	<1.51	1,790	1.22 J	120,000	1,190	2.44 J	3.15	----
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	7.23 J	191	<0.330	<1.50	474,000	12,600	<0.840	<15.1	<18.0	<8.49	240,000	12.4	4.62 J	<8.16	<18.3
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	1.92 J	94.1	<0.330	<0.150	149,000	27,600	<0.840	<1.51	<18.0	<0.849	318,000	25.7	11.8	<0.816 UJ	----
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	10.3	137	<0.330	<0.750	601,000	16,800	<0.840	<7.55	<18.0	<4.24	326,000	114	5.53	<4.08	----
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	17.5 J	227	<0.330	<1.50	816,000	39,300	<0.840	<15.1	<18.0	<8.49	502,000 J+	286	7.04 J+	<8.16	----
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	12.7	137	<0.330	<0.750	596,000	17,700	<0.840	15.1 J	21.7 J	<4.24	340,000	199	8.47	7.75 J	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	20.0	24.7 J+	<0.330	<0.150	114,000	922	<0.840	2.29 J	25.5 J	<0.849	48,200	11.0	13.8	0.870 J	<18.3
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	21.7	23.1	<0.330	<0.150	77,200	203	<0.840	<1.51	<18.0	<0.849	36,000	7.25 J	12.6	<0.816	----
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	23.8	23.5	<0.330	<0.150	67,600	167	<0.840	2.22 J	<18.0	<0.849	33,400	4.46 J	10.4	2.13	----
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	24.5	22.7	<0.330	<0.150	60,000	192	<0.840	3.20 J	<18.0	<0.849	28,800 J+	2.70 J	12.0 J+	<0.816	----
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	23.7	21.6	<0.330	<0.150	54,700	146	<0.840	1.68 J	<18.0	<0.849	25,900	3.25 J	11.0	2.56	----
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	11.2	38.6	<0.330	<0.150	231,000	8,620	<0.840	<1.51	<18.0	<0.849	76,200	2.20 J	13.7	<0.816	<18.3
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	69.5	182	<0.330	<0.150	153,000	10.9	<0.840	<1.51	33.5 J	<0.849	85,400	629	5.24	7.02	----
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	52.5	184	<0.330	<0.150	147,000	11.4	<0.840	<1.51	33.8 J	<0.849	86,100	634	5.43	4.10 J	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	59.2	652	<0.330	<0.150	264,000	19.0	1.47 J	<1.51	3,540	1.23 J	229,000	4,580	<1.16	6.94	----
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	58.9	650	<0.330	<0.150	264,000	18.7	1.01 J	<1.51	3,530	<0.849	229,000	4,600	1.59 J	6.97	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	83.7	459	<0.330	<0.150	215,000	16.8	<0.840	1.67 J	5,740	<0.849 UJ	199,000	4,650	<1.16	8.25	----
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	83.0	459	<0.330	<0.150	217,000	14.7	<0.840	2.48 J	5,810	4.76 J	202,000	4,640	<1.16	8.37	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	8.62	408	<0.330	0.162 J	515,000	13,800	6.06 J	3.78 J	18.7 J	2.11 J+	473,000	2,590	25.9	77.3	----
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	8.52	408	<0.330	<0.150	509,000	13,800	5.81 J	3.43 J	20.4 J	<0.849	472,000	2,590	26.9	75.6	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	20.9	22.2 J+	<0.330	<0.150	169,000	427	<0.840	<1.51	<18.0	<0.849	37,500	2.69 J	18.3	<0.816	28.9 J
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	21.2	22.5 J+	<0.330	<0.150	168,000	426	<0.840	<1.51	<18.0	<0.849	37,700	2.07 J	18.4	<0.816	25.5 J
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	37.5	18.0	<0.190 UJ	<0.150 UJ	136,000	77.3	0.147 J	<1.51 UJ	<28.1 UJ	<0.849 UJ	57,200	19.9	40.2	<0.816 UJ	----
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	61.8	260	<0.330	<0.150	203,000	6.40 J	<0.840	<1.51	10,700	<0.849	151,000	1,240	<1.16	<4.08	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020
						Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	72.6	462	<0.330	<0.150	254,000	13.3 J+	<0.840	<1.51	12,500	<0.849	203,000 J+	2,430	<1.16	3.19	----
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	170	183	<0.330	<0.150	86,400	6.78 J	1.28 J	<1.51	4,050	1.26 J	93,200	720	<1.16	2.79	----
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	12/6/2022	N	EM04	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	1/9/2023	N	EM05	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	2/13/2023	N	EM06	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	3/13/2023	N	EM07	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	4/19/2023	N	EM08	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	5/18/2023	N	EM09	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	6/12/2023	N	EM10	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	7/11/2023	N	EM11	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	8/10/2023	N	EM12	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	9/11/2023	N	EM13	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	10/16/2023	N	EM14	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	0.956	1.80	0.0 U	22.9	8.02	190	0.0 U
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	34.552	0.56	0.0 U	140.6	6.99	120	0.0 U
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	42.112	1.63	0.0 U	212.1	7.36	100	0.0 U
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	16.998	4.13	----	172.0	7.19	280	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	18.268	4.61	----	118.7	7.71	250	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	19.870	4.83	----	123.6	7.38	100	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	9.502	5.52	----	132.4	7.49	250	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	10.973	6.27	----	184.3	8.08	80	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	33,800	4.45 J	<0.350	1,700,000	<0.605	6.02 J	11.3 J	<15.1	12.924	8.09	0.0 U	129.4	7.57	70	0.0 U
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	17.375	0.57	0.0 U	106.3	7.44	120	0.0 U
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	19.858	4.58	0.0 U	147.1	7.40	140	0.0 U
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	60,000	4.63 J	<0.350	2,690,000	<0.605	5.71	<4.99	<15.1	19.291	3.85	0.0 U	221.0	7.55	270	0.0 U
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	17.476	5.11	0.0 U	285.2	7.83	120	0.0 U
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	22.933	3.58	0 U	129.1	7.53	75	0 U
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	53,600	3.17 J	<0.350	2,520,000	<0.605	9.66	<4.99	<15.1	18.1	1.48	0 U	-27.3	7.22	130	0 U
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	----	----	----	----	----	----	19.504	0.11	0 U	-7.9	6.59	180	0 U
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	----	----	----	----	----	5.163	5.64	0.0 U	44.4	10.69	100	0.0 U
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	31,400	2.90	<0.0700	815,000	<0.121	0.164 J	88.6	3.06 J	3.539	2.45	0.0 U	14.4	11.12	0	0.0 U
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	18,800	3.26	<0.0700	836,000	<0.121	0.184 J	82.9	9.60 J	4.110	1.37	0.0 U	112.5	10.40	300	0.0 U
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	24,800	2.73	<0.0700	772,000	<0.121	<0.0789	75.2	<3.02	4.01	0.65	0 U	25	10.46	180	0 U
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	----	----	----	----	----	2.053	5.66	0.0 U	142.6	8.13	100	0.0 U
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	23,700	1.89 J	<0.0700	307,000	<0.121	0.682 J	<4.99	<3.02	1.095	1.94	0.0 U	142.0	8.10	20	0.0 U
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	11,600	1.75 J	<0.0700	195,000	<0.121	1.93	9.74 J	10.5 J	3.971	-4.01	0 U	363.8	7.32	60	0 U
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	2.393	3.04	0.0 U	36.4	8.03	60	0.0 U
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	2.198	1.87	0.0 U	175.7	7.89	100	0.0 U
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	----	----	----	----	----	----	42.734	0.85	0.0 U	167.3	7.78	100	0.0 U
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	5,180	2.33 J+	<0.0700	109,000	<0.121	4.22	<4.99	31.6	1.180	7.21	0.0 U	172.0	8.08	100	0.0 U
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	0.072	9.17	0.0 U	120.6	8.70	100	0.0 U
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	23,900	2.79 J+	<0.0700	1,240,000	<0.121	13.1	11.1 J	6.82 J	8.100	8.18	0.0 U	138.0	7.74	100	0.0 U
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	6.667	0.56	----	41.1	7.06	----	----
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	19.499	-8.13	----	92.8	6.87	----	----
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	5.467	6.43	----	234.8	6.65	----	----
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	4.658	2.89	----	-164.3	6.15	----	----
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	0.158	2.53	----	-105.1	6.85	----	----
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	3.207	0.47	----	-377.9	5.96	----	----
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	3.439	2.71	----	-147.9	5.45	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	----	----	9.255	0.62	0.0 U	129.9	7.36	130	0.0 U
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	5,090	2.54 J+	0.250 J	107,000	<0.121	4.17	<4.99	39.1	1.040	5.47	0.0 U	36.0	7.96	100	0.0 U
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	9.309	4.25	0.0 U	190.6	8.46	105	0.0 U
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	7,080	2.28 J+	0.161 J	310,000	<0.121	8.65	11.2 J	109	1.211	5.22	0.0 U	162.8	7.49	50	0.0 U
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	5.027	0.34	----	-84.5	7.19	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	59.186	15.52	----	10.9	8.30	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	5.989	5.67	----	-127.4	6.82	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	5.684	5.14	----	-26.8	7.10	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	3.161	4.11	----	-1.6	7.04	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	2.626	0.82	----	-204.4	6.43	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	5.429	3.75	----	-170.1	6.29	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	36.139	0.68	0.0 U	96.0	7.14	200	0.0 U
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	16.802	4.86	----	109.3	7.34	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	11.752	6.10	----	198.2	7.40	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	9.776	7.80	----	117.4	7.79	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	11.469	7.00	----	83.8	7.44	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	39,600	4.70 J	<0.350	2,730,000	<0.605	13.7	11.5 J	<15.1	13.740	5.37	0.0 U	76.6	7.30	120	0.0 U
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	11.829	0.51	----	-58.5	6.55	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	121.248	17.27	----	51.7	6.26	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	16.419	6.77	----	180.8	6.40	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	16.930	2.16	----	154.2	6.62	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	9.19	3.25	----	246.9	9.01	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	17.112	1.28	----	95.6	6.58	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	10.941	3.51	----	81.8	6.15	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	22.249	1.29	0.0 U	34.2	7.19	70	0.0 U
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	5,050	1.98 J	<0.0700	106,000	<0.121	4.19	<4.99	35.1	0.999	6.07	0.0 U	48.3	8.06	100	0.0 U
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	4.524	0.84	0.0 U	-18.2	8.40	70	0.0 U
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	65,500	6.52 J	<0.350	4,390,000	<0.605	10.1	6.22 J	<15.1	22.410	4.33	0.0 U	83.0	7.42	0	0.0 U
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	26.037	3.43	0.0 U	177.7	7.33	100	0.0 U
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	5,590	1.43 J	<0.0700	102,000	<0.121	3.57	<4.99	90.4	0.537	1.78	0.0 U	116.2	7.65	30	0.0 U
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	5.209	0.59	0.0 U	101.8	8.45	100	0.0 U
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	11,800	1.85 J	<0.0700	698,000	<0.121	13.2	16.6 J	10.1 J	8.778	7.39	0.0 U	56.3	7.92	90	0.0 U
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	32,800 J	2.53	<0.0700	1,310,000	<0.121	5.59	<4.99	5.24 J	9.911	2.39	0.0 U	138.8	7.24	90	0.0 U
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	23,300	2.37	<0.0700	624,000	<0.121	7.83	17.4 J	4.73 J	4.282	2.10	0.0 U	128.1	7.47	90	0.0 U
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	23,200	2.53	<0.0700	622,000	<0.121	7.85	15.5 J	5.71 J	----	----	----	----	----	----	----
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	5.809	2.83	----	-204.0	6.62	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	3.965	55.80	----	111.2	6.81	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	8.481	6.55	----	-78.1	6.72	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	1.755	2.06	----	5.2	5.87	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	8.065	0.62	----	137.4	6.39	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	13.700	2.61	----	68.3	7.63	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	15.651	5.52	----	259.0	6.56	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	14.385	2.42	----	83.3	6.39	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	11.976	2.61	----	77.8	5.77	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	3.76	2.52	----	-110.2	6.1	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	7.728	2.43	----	-129.9	6.18	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	74,800	9.10 J	<0.700	5,760,000	<1.21	5.33 J	<25.0	<30.2	28.599	1.02	0.0 U	134.9	7.20	100	0.0 U
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	23,400	3.34	<0.0700	1,610,000	<0.121	9.05	45.7	3.42 J	6.791	2.78	0.0 U	164.9	8.12	100	0.0 U
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	14.508	4.32	----	191.3	7.16	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	13.019	2.90	----	29.1	7.20	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	7.227	4.15	----	90.9	7.45	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	12.582	6.63	----	28.0	7.84	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	5.774	3.04	----	90.3	7.05	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	12.284	0.26	----	138.8	6.73	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	7.144	2.56	----	120.1	7.60	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	14.175	2.72	----	225.2	6.92	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	14.819	1.95	----	220.3	6.87	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	24.122	1.8	----	121.4	6.03	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	6.764	1.89	----	107.1	6.68	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----	16.492	1.98	----	74.9	6.56	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	82,200	7.15 J	<0.700	6,200,000	<1.21	7.00 J	<25.0	<30.2	31.747	1.11	0.0 U	185.4	7.17	100	0.0 U
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	22.510	2.00	----	-21.2	6.86	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	17.697	3.19	----	140.3	7.03	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	10.120	58.00	----	94.3	7.21	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	16.329	6.82	----	139.4	7.51	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	13.288	2.58	----	188.9	6.86	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	15747.000	0.26	----	52.0	6.45	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	13.979	3.62	----	138.5	7.13	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	18.024	2.95	----	271.2	6.93	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----	16.343	1.76	----	307.9	6.95	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	46,900	3.01 J	<0.700	1,840,000	<1.21	5.49 J	7.06 J	<30.2	16.373	1.12	0.0 U	131.3	7.20	100	0.0 U
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	25,300	2.47	<0.0700	1,100,000	<0.121	9.29	16.8 J	3.75 J	6.980	5.93	0.0 U	42.3	7.51	100	0.0 U
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	29,700	2.51	<0.0700	1,120,000	<0.121	1.64	6.53 J	<3.02	8.624	0.77	0.0 U	200.4	8.07	100	0.0 U
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	26,000	2.58	<0.0700	1,410,000	<0.121	10.6	14.5 J	7.05 J	9.367	1.04	0.0 U	223.7	7.20	100	0.0 U
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----	11.556	0.72	0.0 U	130.5	7.14	130	0.0 U
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----	7.060	11.76	----	190.0	7.35	60	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	5,630	3.03	<0.0700	165,000	<0.121	3.18	<4.99	<3.02	12.024	5.68	0.0 U	164.9	7.53	80	0.0 U
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	26,500	148	<0.700	769,000	<1.21	3.51	6.20 J	<30.2	7.279	5.89	0.0 U	217.9	7.51	360	0.0 U
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	27,600	1.74 J	<0.350	729,000	<0.605	4.02 J	6.62 J	<15.1	6.26	5.35	0 U	171.4	7.5	50	0 U
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----	1.873	0.81	0.0 U	70.8	7.75	100	0.0 U
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	21,800	1.92 J	<0.0700	377,000	<0.121	2.59	<4.99	<3.02	6.737	2.84	0.0 U	61.8	7.33	100	0.0 U
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	23,300	82.9	<0.700	421,000	<1.21	1.09	<4.99	<30.2	4.786	3.56	0.0 U	171.6	7.59	320	0.0 U
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	25,300	2.05	<0.0700	425,000	<0.121	1.65	<4.99	12.8 J	4.64	2.03	0 U	145.3	7.45	90	0 U
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----	----	9.209	0.67	0.0 U	103.3	7.70	220	0.0 U
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	7,270	3.38	0.146 J	213,000	0.148 J	3.88	<4.99	<3.02	16.598	7.69	0.0 U	137.9	7.59	110	0.0 U
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	27,400	2.52	<0.0700	779,000	<0.121	3.83	<4.99	11.4 J	7.447	5.80	0.0 U	159.7	7.60	480	0.0 U
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	31,100	2.68 J	<0.350	873,000	<0.605	5.11	<4.99	<15.1	7.818	4.76	0 U	133.7	7.49	50	0 U
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----	----	4.903	4.81	0.0 U	99.5	8.75	220	0.0 U
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	17,500	2.64	<0.0700	859,000	<0.121	2.66	66.7	<3.02	4.199	5.90	0.0 U	-4.5	8.44	100	0.0 U
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	18,800	3.01	<0.0700	854,000	<0.121	2.22	67.6	<3.02	4.283	4.21	0.0 U	164.7	8.57	420	0.0 U
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	19,300	2.67	<0.0700	907,000	<0.121	3.16	68.2	<3.02	3.367	0.79	0 U	83.9	8.6	90	0 U
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	47.936	0.74	0.0 U	206.4	7.25	100	0.0 U
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	82.713	0.99	----	202.1	7.14	280	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	61.099	0.93	----	114.9	7.21	150	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	41.262	1.18	----	139.7	7.32	100	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	28.405	1.73	----	124.2	7.31	250	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	25.274	2.04	----	199.9	7.39	210	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	94,100	7.47 J	1.64 J	6,650,000	<1.21	3.50 J	<4.99	<30.2	38.385	2.05	0.0 U	178.4	7.26	100	0.0 U
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	37.915	0.18	0.0 U	42.5	7.15	120	0.0 U
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	35.930	2.52	0.0 U	94.9	7.25	120	0.0 U
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	82,700	51.6	0.800 J	7,010,000	<1.21	53.6	<25.0	<30.2	35.233	7.26	0.0 U	154.1	7.28	100	0.0 U
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	40.985	1.73	0.0 U	117.3	7.25	220	0.0 U
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	38.61	2.22	0 U	133.6	7.33	200	0 U
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	110,000	6.05 J	<1.40	7,670,000	<2.42	4.70 J	<4.99	<60.4	33.003	1.98	0 U	150.9	7.38	300	0 U
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	38.108	1.6	0 U	161.6	7.19	180	0 U
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	8.827	3.75	0.0 U	159.8	8.09	100	0.0 U
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	20.389	0.98	----	172.7	7.07	280	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	17.936	0.44	----	148.7	6.86	200	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	1.625	1.11	----	168.4	6.91	100	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	22.789	1.09	----	232.8	6.61	100	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	73,000	6.92 J	<0.350	4,660,000	<0.605	19.3	8.84 J	<15.1	27.205	0.39	0.0 U	129.0	6.43	105	0.0 U
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	71,300	4.91 J	<0.350	4,660,000	<0.605	18.7	12.3 J	<15.1	----	----	----	----	----	----	----
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	3.331	0.04	0.0 U	8.1	6.31	130	0.0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	3.966	1.00	0.0 U	135.2	6.57	140	0.0 U
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	19,000	0.654 J	<0.0700	836,000	<0.121	60.1	18.9 J	12.9 J	4.378	1.99	0.0 U	110.4	6.57	60	0.0 U
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	18,400	0.552 J	<0.0700	810,000	<0.121	62.5	18.3 J	15.9 J	----	----	----	----	----	----	----
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	4.126	0.21	1.0	-196.8	6.37	330	2.0
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	12.098	1.33	0 U	47.7	6.36	50	0 U
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	34,700	<1.50	<0.350	1,630,000	<0.605	65.1	34.5	<15.1	8.481	0.14	0 U	128.6	6.31	270	0 U
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	34,000	1.65 J	<0.350	1,600,000	<0.605	63.9	34.0	<15.1	----	----	----	----	----	----	----
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	15.953	0.24	0 U	136.3	6.61	210	0 U
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----	----	----	----	----	----	19.006	2.71	0.0 U	209.7	7.29	100	0.0 U
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	----	----	----	----	----	----	----	7.848	5.12	----	168.2	7.47	60	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	35,900	1.88 J	<0.350	1,840,000	<0.605	2.41 J	<4.99	<15.1	797.196	3.67	0.0 U	76.1	7.37	100	0.0 U
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	35,900	3.11 J	<0.350	1,890,000	<0.605	2.52 J	<4.99	<15.1	----	----	----	----	----	----	----
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	36,600	3.02 J	<0.350	1,820,000	<0.605	2.67	<25.0	<15.1	12.408	7.77	0.0 U	277.6	7.31	270	0.0 U
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	39,000	2.48 J	<0.350	2,000,000	<0.605	19.6	<4.99	<15.1	12.23	-1.53	0 U	198.5	6.9	270	0 U
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----	----	2.756	1.07	0.0 U	220.6	7.54	100	0.0 U
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	6,600	1.83 J	<0.0700	145,000	<0.121	2.55	7.92 J	<3.02	1.855	2.71	0.0 U	35.0	8.22	110	0.0 U
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	6,690	1.57 J	<0.0700	143,000	<0.121	2.35	11.0 J	<3.02	1.081	1.55	0.0 U	185.0	8.22	200	0.0 U
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	6,230	1.36 J	<0.0700	138,000	<0.121	2.53	8.13 J	3.18 J	0.855	-1.23	0 U	189.8	8.45	270	0 U
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	6.055	1.28	0.0 U	57.0	8.02	60	0.0 U
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	37,100	2.88 J+	0.0987 J	1,590,000	0.158 J	4.09	<4.99	<3.02	22.711	4.02	0.0 U	95.9	7.44	100	0.0 U
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	36,500	3.33 J	<0.350	1,540,000	<0.605	3.39 J	8.63 J	<15.1	12.632	4.07	0.0 U	230.1	7.54	210	0.0 U
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	38,100	3.25 J	<0.350	1,640,000	<0.605	3.43 J	7.62 J	<15.1	----	----	----	----	----	----	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	43,500	2.90 J	0.501 J	1,910,000	<0.605	13.0	16.6 J	36.4 J	13.726	2.78	0 U	157.1	7.16	100	0 U
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	42,700	2.59 J	0.414 J	1,900,000	<0.605	11.9	14.1 J	27.8 J	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----	4.716	9.18	0.0 U	105.4	9.74	195	0.0 U
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	11,100	3.27 J+	<0.0700	892,000	<0.121	6.81	159	<3.02	7.108	3.63	0.0 U	-0.9	9.48	100	0.0 U
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	12,000	2.90	<0.0700	971,000	<0.121	5.87	105	<3.02	4.357	0.56	0.0 U	171.1	8.84	240	0.0 U
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	10,400	2.07	<0.0700	881,000	<0.121	13.0	127	<3.02	3.313	-1.93	0 U	-20	8.81	300	0 U
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----	50.188	0.90	0.0 U	76.7	7.01	200	0.0 U
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----	5.802	7.81	----	185.1	7.60	60	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	2,920	2.08	<0.0700	205,000	<0.121	9.80	<4.99	<3.02	5.697	7.32	0.0 U	43.3	7.80	120	0.0 U
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	16,200	2.08 J	<0.350	965,000	<0.605	15.5	11.8 J	<15.1	5.920	0.79	0.0 U	22.8	7.20	60	0.0 U
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	23,500	1.70 J	<0.350	1,330,000	<0.605	14.8	5.26 J	50.2 J	8.782	2.88	0 U	279.6	6.88	50	0 U
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	22.833	0.68	0.0 U	49.8	7.36	100	0.0 U
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	6,810	2.95 J	<0.350	482,000	<0.605	7.91	<4.99	<15.1	15.330	5.23	0.0 U	144.6	7.43	200	0.0 U
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	34,800	4.23 J	<0.350	2,010,000	<0.605	22.0	6.74 J	<15.1	12.208	1.12	0.0 U	96.3	6.90	110	0.0 U
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	60,900	4.06 J	<0.700	4,020,000	<1.21	30.1	<4.99	<30.2	27.215	0.72	0 U	168.9	6.83	240	0 U
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	39.740	0.77	0.0 U	146.1	7.03	100	0.0 U
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	24.933	3.56	----	190.6	7.02	280	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	17.012	4.46	----	121.3	7.64	140	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	16.306	4.72	----	143.6	7.59	0	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	10.893	5.62	----	187.0	7.27	250	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	5.665	7.00	----	190.5	7.55	80	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	34,300	<1.50	<0.350	2,670,000	<0.605	13.1	11.8 J	<15.1	13.970	5.77	0.0 U	57.4	7.45	100	0.0 U
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	8.597	0.09	0.0 U	36.1	7.31	100	0.0 U
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	22.381	-39.98	0.0 U	133.6	5.83	150	0.0 U
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	26,000	2.13 J	<0.350	1,810,000	<0.605	93.9	<4.99	<15.1	6.646	0.78	0.0 U	133.4	6.48	90	0.0 U
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	11.868	0.37	0.0 U	182.4	6.42	220	0.0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	14.812	1.44	0 U	100.2	6.71	50	0 U
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	27,000	0.894 J	<0.0700	1,680,000	0.257 J	117	<4.99	12.8 J	9.152	0.08	0 U	99.9	6.21	200	0 U
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	10.688	0.77	0 U	104.5	6.41	140	0 U
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	20.080	0.87	0.0 U	140.1	7.54	100	0.0 U
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	24.065	2.94	----	205.5	7.04	280	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	21.533	3.08	----	130.9	7.57	240	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	0.258	6.78	----	132.0	7.34	100	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	12.599	4.84	----	192.5	7.29	250	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	5.446	5.76	----	179.4	7.53	80	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	36,600	3.42 J	<0.350	2,700,000	<0.605	16.0	21.8	<15.1	23.991	6.62	0.5	77.0	7.65	100	0.0 U
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	5.477	0.92	0.0 U	-3.0	7.08	130	0.0 U
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	13.468	-1.10	0.0 U	-31.5	5.71	150	0.0 U
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	20,900	0.461 J	<0.0700	1,810,000	<0.121	96.4	24.8	9.57 J	4.781	0.37	0.5	-156.7	6.57	60	0.2
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	10.427	0.14	0.0 U	141.8	6.71	300	0.0 U
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	12.637	1.39	0 U	107.5	6.74	50	0 U
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	33,200	<1.50	<0.350	2,130,000	<0.605	163	21.9	20.6 J	10.838	0.08	0 U	126.6	6.36	240	0 U
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	9.508	7.01	0 U	99.1	6.95	120	0 U
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	0.0 U	----	----	----	0.0 U
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	16.354	5.93	----	198.6	7.34	80	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	7,760	3.38	0.293 J	530,000	0.144 J	6.77	<4.99	<3.02	9.930	5.41	0.0 U	196.2	7.10	120	0.0 U
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	47,800	2.38 J	<0.350	3,030,000	<0.605	7.14	<49.9	16.2 J	10.958	5.42	0.0 U	140.6	7.26	90	0.0 U
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	48,700	2.50 J	<0.350	2,900,000	<0.605	74.5	<4.99	16.4 J	20.472	0.84	0 U	23.9	6.08	50	0 U
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	----	----	----	----	----	6.356	0.75	0.0 U	132.2	8.14	100	0.0 U
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	51,200	6.26 J	<0.350	3,280,000	<0.605	9.11	11.5 J	<15.1	4.941	6.89	0.0 U	120.3	7.90	0	0.0 U
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	52,400	3.90 J	<0.350	3,300,000	<0.605	31.8	<49.9	15.5 J	6.217	8.13	0.0 U	94.8	8.27	50	0.0 U
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	50,900	2.82 J	<0.350	3,330,000	<0.605	87.3	<25.0	24.4 J	20.743	0.68	0 U	31.2	6.42	50	0 U
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	10.924	4.48	0.0 U	182.2	7.48	100	0.0 U
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	2.057	6.89	----	93.5	7.79	50	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	1.730	6.43	----	111.1	7.85	200	----
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	1.462	8.66	----	106.4	7.83	100	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	1.736	11.30	----	105.0	7.74	120	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	1.217	9.30	----	161.8	7.79	90	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	5,290	1.91 J	<0.0700	189,000	<0.121	7.45	<4.99	<3.02	0.029	7.54	0.0 U	140.8	7.92	105	0.0 U
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	4.642	0.05	0.0 U	-393.7	6.15	120	0.0 U
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	37.585	44.89	0.0 U	47.7	5.65	150	0.0 U
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	15,100 J+	5.68	<0.0700	537,000	0.168 J	3.74 J	8.40 J	<3.02	4.893	1.10	0.0 U	108.0	6.37	60	0.0 U
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	16.019	0.37	0.0 U	162.4	6.70	400	0.0 U
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	14.895	2.61	0 U	128.8	6.46	200	0 U
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	36,300	<1.50	<0.350	2,250,000	<0.605	128	8.03 J	<15.1	13.126	0.06	0 U	174.6	6.3	200	0 U
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----	11.854	1.09	0 U	124.7	6.6	120	0 U
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	5.556	0.59	0.0 U	158.2	7.86	100	0.0 U
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	2.078	6.24	----	135.0	7.86	50	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	1.794	6.05	----	141.5	7.93	180	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	1.562	8.32	----	96.7	7.97	100	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	1.955	9.11	----	104.4	7.82	150	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	1.786	8.45	----	124.7	7.66	80	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	7,190	1.39 J	<0.0700	314,000	<0.121	8.83	5.92 J	5.20 J	6.144	7.27	0.0 U	83.7	7.72	100	0.2
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	4.708	0.07	0.0 U	-161.7	6.53	130	0.0 U
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	42.407	48.03	1.0	-80.3	6.08	150	0.0 U
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	16,500	0.349 J	<0.0700	946,000	<0.121	62.7	10.3 J	<3.02	4.631	0.23	1.0	-262.2	6.78	60	0.4
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	10.648	0.37	0.0 U	133.1	6.53	210	0.0 U
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	10.453	3.21	0 U	99.4	6.44	75	0 U
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	32,700	<1.50	<0.350	2,130,000	<0.605	218	22.2	18.6 J	11.049	0.1	0 U	156.1	6.31	240	0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	8.236	0.87	0 U	96.4	6.51	140	0 U
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	102,000	7.61 J	<0.700	7,950,000	<1.21	10.1	<25.0	<30.2	43.677	1.07	0.0 U	166.4	6.92	100	0.0 U
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	43,000	4.50 J	<0.350	3,880,000	<0.605	24.7	6.96 J	<15.1	15.745	1.70	0.0 U	52.2	6.62	250	0.0 U
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	49,900	6.98 J	<0.350	3,810,000	<0.605	103	<4.99	<15.1	15.242	1.42	0.0 U	174.5	6.38	0	0.0 U
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	61,800	4.01 J	0.863 J	4,800,000	<1.21	96.5	<4.99	<30.2	26.142	2.23	0.0 U	126.1	6.54	100	0.0 U
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	90,900	3.93 J	<0.700	6,620,000	<1.21	39.1	<4.99	<30.2	50.933	-1.16	0 U	263.7	6.48	300	0 U
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	11,000	2.68	<0.0700	258,000	<0.121	3.24	10.4 J	<3.02	1.774	0.95	0.0 U	5.0	7.70	70	0.0 U
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	11,100	2.31	<0.0700	258,000	<0.121	3.20	9.34 J	<3.02	----	----	----	----	----	----	----
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	9,950	2.00	<0.0700	179,000	<0.121	3.17	8.61	23.0 J	1.034	1.20	0.0 U	138.4	7.44	200	0.0 U
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	15,400	2.01	<0.0700	359,000	<0.121	2.28	<4.99	<3.02	7.824	2.01	0.0 U	63.2	7.54	80	0.0 U
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	15,400	1.85 J	<0.0700	330,000	0.830 J	2.36	8.83 J	<3.02	2.973	2.71	0.0 U	46.7	6.77	50	0.0 U
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	11,300	1.50 J	<0.0700	230,000	<0.121	2.91	7.29 J	<3.02	1.655	-1.71	0 U	290.1	7.54	180	0 U
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	23,000	2.69	<0.0700	1,300,000	<0.121	6.55	23.5	3.30 J	8.786	1.97	0.0 U	183.3	7.71	100	0.0 U
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	36,600	3.16 J	<0.350	2,570,000	<0.605	23.7	18.2 J	<15.1	8.950	2.32	0.0 U	137.7	7.48	250	0.0 U
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	36,200	3.40 J	<0.350	2,540,000	<0.605	23.2	18.3 J	<15.1	----	----	----	----	----	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	55,900	6.53 J	<0.350	3,640,000	<0.605	41.3	11.9 J	<15.1	7.198	2.29	0.0 U	157.8	6.95	35	0.0 U
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	25,100	<3.00	<0.700	1,580,000	1.43 J	75.9	16.6 J	<30.2	8.097	1.90	0.0 U	13.5	7.06	50	0.0 U
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	42,800	2.03 J	<0.350	2,860,000	<0.605	109	10.5 J	<15.1	22.556	-1.3	0 U	216.1	6.72	360	0 U
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	20,400	2.19	<0.0700	580,000	<0.121	0.591 J	47.5	<3.02	3.391	3.42	0.0 U	79.6	9.96	285	0.0 U
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	18,200	1.95 J	<0.0700	624,000	<0.121	13.4	49.2	<3.02	2.838	2.17	0.0 U	40.0	8.08	250	0.0 U
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	17,900	1.80 J	<0.0700	612,000	<0.121	13.2	48.5	4.34 J	----	----	----	----	----	----	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	17,800	<0.300	<0.0700	464,000	<0.121	11.8	5.34 J	<3.02	0.027	7.40	0.0 U	-138.1	7.85	60	0.2
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	16,900	<0.300	<0.0700	467,000	<0.121	13.7	5.55 J	<3.02	----	----	----	----	----	----	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	15,900	<0.300	<0.0700	551,000	<0.121	18.7	8.86 J	<3.02	2.956	0.72	0.0 U	-258.8	7.13	100	2.0
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	15,800	<0.300	<0.0700	554,000	<0.121	18.0	9.37 J	<3.02	----	----	----	----	----	----	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	18,500	<0.300	<0.0700	527,000	<0.121	8.27	22.2	9.25 J	4.902	-1.41	0 U	-184.8	6.65	300	0 U
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	17,400	<3.00	<0.700	517,000	<1.21	8.89 J	22.4	<30.2	----	----	----	----	----	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	6,610	3.90 J	<0.700	475,000	<1.21	10.2	<4.99	165 J	25.834	1.79	0.0 U	36.4	7.03	100	0.0 U
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	12,100	1.98 J	<0.0700 UJ	680,000	<0.121 UJ	9.26	23.1	<3.02 UJ	3.375	6.84	0.0 U	104.4	7.69	200	0.0 U
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	17,400	1.73 J	<0.0700	879,000	<0.121	48.7	8.91 J	<3.02	4.632	1.55	0.0 U	-81.6	6.58	0	0.0 U
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	19,700	0.834 J	<0.0700	821,000	0.147 J	62.1	8.47 J	<3.02	5.788	1.36	0.0 U	2.5	6.50	100	0.0 U
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	24,800	0.867 J	<0.0700	1,140,000	0.195 J	86.5	<4.99	14.3 J	7.12	1.59	0 U	-170.2	6.4	180	0 U
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	7,460	1.98 J	<0.0700	181,000	<0.121	2.98	9.16 J	3.03 J	1.339	1.49	0.0 U	144.1	7.81	100	0.0 U
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	7,030	1.86 J	<0.0700 UJ	162,000	<0.121 UJ	3.11	10.6	<3.02 UJ	1.036	1.23	0.0 U	63.9	7.85	250	0.0 U
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	9,310	2.06	<0.0700	199,000	<0.121	2.36	9.68 J	<3.02	1.698	4.64	0.0 U	146.4	7.90	70	0.0 U
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	10,000	2.18	<0.0700	214,000	<0.121	2.86	8.61 J	<3.02	1.722	3.91	0.0 U	-41.8	8.18	100	0.0 U
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	14,900	1.29 J	<0.0700	319,000	<0.121	7.89	<4.99	4.42 J	5.041	-1.2	0 U	160	6.36	210	0 U
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	19,300	2.24	<0.0700	588,000	<0.121	5.48	19.1 J	<3.02	3.354	10.37	0.0 U	8.8	7.57	120	0.0 U
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	20,600	2.26 J	<0.350 UJ	1,150,000	<0.605 UJ	10.8	10.7 J	<15.1 UJ	4.939	5.28	0.0 U	124.5	7.49	250	0.0 U
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	21,400	1.80 J	<0.0700	1,140,000	<0.121	60.5	9.36 J	<3.02	16.829	0.37	0.7	-149.7	6.48	105	0.0 U
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	23,300	1.04 J	<0.0700	966,000	<0.121	83.1	12.0 J	<3.02	6.158	1.16	0.0 U	112.1	6.32	200	0.0 U
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	27,100	1.06 J	<0.0700	1,280,000	0.188 J	86.2	<4.99	14.9 J	7.94	0.34	0 U	-130.8	6.44	300	0 U
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	14,000	2.13	<0.0700	461,000	<0.121	6.57	36.3	<3.02	2.893	4.00	0.0 U	179.7	8.27	160	0.0 U
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	9,350	2.30	<0.0700 UJ	841,000	<0.121 UJ	4.45	67.2	<3.02 UJ	3.158	5.76	0.0 U	73.5	8.69	250	0.0 U
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	9,940	2.10	<0.0700	780,000	<0.121	9.84	61.6	8.34 J	3.822	1.29	0.0 U	97.1	8.96	200	0.0 U
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	13,400	<0.300	<0.0700	1,500,000	1.23 J	81.8	48.1	9.78 J	4.352	0.69	0.0 U	-300.0	7.24	100	2.0
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	16,600	<3.00	<0.700	1,530,000	<1.21	10.1	34.9	<30.2	8.97	-1.46	0.5	-170.8	6.79	300	0.3
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	24,200	2.14	<0.0700	626,000	<0.121	9.13	8.78 J	3.53 J	5.411	0.91	0.0 U	206.3	7.33	100	0.0 U
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	15,500	2.22	<0.0700	----	<0.121	5.41	7.55 J	<3.02	2.690	3.80	0.0 U	70.0	7.73	100	0.0 U
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	18,100	0.811 J	<0.0700	303,000	<0.121	95.1	<4.99	7.73 J	542.825	0.85	0.5	-107.9	6.38	100	0.0 U
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	18,000	0.312 J	<0.0700	300,000	<0.121	25.4	<4.99	<3.02	3.761	0.26	1.0	-202.3	6.59	200	0.1
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	19,800	0.441 J	<0.0700	362,000	0.332 J	130	5.23 J	3.27 J	3.965	1	3	-29.7	6.66	50	0 U
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	31,700	2.88	<0.0700	995,000	0.490 J	6.45	9.70 J	4.88 J	7.650	0.90	0.0 U	183.9	7.68	100	0.0 U
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	17,000	2.24	<0.0700	----	<0.121	11.5	16.8 J	<3.02	2.740	0.62	0.0 U	9.6	7.73	100	0.0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	22,400	0.803 J	<0.0700	586,000	<0.121	0.368 J	10.7 J	10.4 J	735.012	3.48	0.0 U	25.5	6.62	100	0.0 U
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	20,200	<0.300	<0.0700	465,000	<0.121	5.72	23.8	<3.02	3.790	0.34	3.0	-173.2	6.54	200	0.6
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	22,900	<0.300	<0.0700	571,000	<0.121	42.9	17.0 J	4.53 J	4.813	0.57	6	-70.6	6.46	50	0.2
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	86,800	6.05 J	<0.700	5,920,000	<1.21	5.93 J	<25.0	<30.2	31.458	0.75	0.0 U	194.9	7.12	100	0.0 U
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	49.507	1.26	0.0 U	49.2	7.38	100	0.0 U
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	49.047	1.30	0.0 U	5.2	7.07	250	0.0 U
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	25.648	1.17	0.0 U	-20.2	7.07	150	0.0 U
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	60,900 J	<30.0 UJ	<7.00 UJ	5,170,000	<12.1 UJ	32.5 J	<66.4 UJ	<302 UJ	5.464	1.37	0.0 U	156.0	6.76	0	0.0 U
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	25.673	0.68	0.0 U	87.9	6.46	120	0.0 U
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	20.311	1.11	0.0 U	120.7	6.27	200	0.0 U
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	62,800	4.91 J	<0.350	4,620,000	<0.605	40.9	<4.99	<15.1	24.191	1.15	0.0 U	46.8	6.50	100	0.0 U
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	18.366	0.11	0.0 U	42.3	6.36	100	0.0 U
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	26.832	1.06	0.0 U	155.6	5.79	140	0.0 U
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	80,500	5.86 J	0.357 J	5,770,000	0.739 J	37.0	<49.9	29.6 J	13.654	1.92	0.0 U	54.6	6.71	100	0.0 U
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	19.620	0.72	0.0 U	254.6	6.88	140	0.0 U
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	24.679	0.37	0 U	-278.7	6.41	240	0 U
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	64,400	3.40 J	<0.350	4,240,000	0.844 J	70.5	<4.99	21.4 J	22.158	1.2	0 U	-2.9	6.49	60	0 U
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----	26.749	0.26	0 U	76.7	6.22	150	0 U
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	26,900	2.57	<0.0700	924,000	<0.121	3.18	14.2 J	<3.02	7.803	1.01	0.0 U	123.8	7.72	110	0.0 U
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	5.582	10.67	0.0 U	-17.7	6.92	100	0.0 U
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	2.413	1.08	0.0 U	-117.1	6.58	250	0.0 U
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	3.179	0.82	0.0 U	-266.8	6.57	180	0.6
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	22,800	<0.300 UJ	<0.0700 UJ	609,000	<0.121 UJ	37.6	21.7	<3.02 UJ	3.016	2.77	0.5	-294.3	7.16	0	0.6
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	23,200	3.38	<0.0700 UJ	595,000	<0.121 UJ	38.2	21.2	<3.02 UJ	----	----	----	----	----	----	----
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	3.038	7.09	0.0 U	-240.4	7.70	150	0.0 U
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	9.120	0.83	0.0 U	-236.7	6.75	200	0.0 U
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	23,000 J	0.614 J	<0.0700	602,000 J	<0.121	14.1	19.2 J	<3.02	3.476	0.45	0.0 U	-241.6	6.86	100	0.8
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	15,200 J	<0.300	<0.0700	398,000 J	<0.121	13.7	10.2 J	4.87 J	----	----	----	----	----	----	----
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	3.218	0.53	0.0 U	-141.1	6.69	120	0.5
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	3.152	0.28	0.0 U	-267.3	6.73	200	0.0 U
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	19,900	0.379 J	<0.0700	495,000	<0.121	9.57	23.2	<3.02	3.350	1.03	1.0	-79.7	6.70	100	2.0
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	20,000	<0.300	<0.0700	498,000	<0.121	9.57	22.3	<3.02	----	----	----	----	----	----	----
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	3.282	0.19	0.2	-243.1	6.68	300	2.4
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	11.584	0.33	0.6	119.4	6.13	240	0 U
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	50,600	5.48 J	<0.350	2,050,000	<0.605	242	<4.99	213 J+	15.082	0.86	0 U	261.3	6.3	50	0 U
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	51,700	7.34 J	<0.350	2,090,000	<0.605	246	<4.99	212 J+	----	----	----	----	----	----	----
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	29.354	0.77	0 U	181.1	6.33	140	0 U
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	83,300	6.13 J	<0.700	4,920,000	<1.21	10.8	<4.99	<30.2	32.048	0.90	0.0 U	90.8	6.98	100	0.0 U
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	17.403	5.30	0.0 U	183.7	7.31	100	0.0 U
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	11.998	2.16	0.0 U	193.7	7.02	250	0.0 U
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	9.367	1.89	0.0 U	145.9	7.12	250	0.0 U
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	43,100	3.67 J	<0.350	3,260,000	<0.605	23.3	9.35 J	20.1 J	15.505	2.44	0.0 U	41.1	7.21	100	0.0 U
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	9.215	1.80	0.0 U	94.5	6.98	250	0.0 U
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	16.607	1.11	0.0 U	42.6	6.93	210	0.0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	44,100	4.79 J	<0.350	2,610,000	<0.605	13.7	8.65 J	<15.1	12.160	1.14	0.0 U	72.1	7.06	100	0.0 U
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	18.271	10.22	0.0 U	73.8	7.66	120	0.0 U
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	27.758	1.10	0.0 U	99.8	6.14	150	0.0 U
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	49,400	3.24 J	<0.350	2,850,000	<0.605	13.4	<49.9	19.1 J	14.311	0.66	0.0 U	225.8	7.11	180	0.0 U
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	13.058	1.09	0.0 U	149.3	6.95	120	0.0 U
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	9.089	0.87	0 U	177.1	6.74	120	0 U
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	27,800	1.94 J	<0.0700	1,150,000	0.201 J	56.9	<25.0	15.4 J	9.274	0.83	0 U	257.9	6.63	60	0 U
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	8.087	0.4	0 U	136.9	6.3	180	0 U
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	35,700	5.65 J	0.454 J	1,720,000	2.39	9.47	9.09 J	<3.02	11.234	1.32	----	35.2	7.74	100	----
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	35,500	3.39 J	<0.0700	1,690,000	<0.121	7.29	6.67 J	<3.02	----	----	----	----	----	----	----
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	3.677	0.92	0.0 U	121.6	7.60	140	0.0 U
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	2.587	1.25	0.0 U	190.1	7.30	280	0.0 U
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	1.684	1.15	0.0 U	95.4	7.23	180	0.0 U
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	16,700	0.587 J	<0.0700	490,000	<0.121	41.0	6.05	<3.02	2.533	1.36	0.0 U	-290.6	7.38	80	0.6
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	16,800	0.457 J	<0.0700	499,000	<0.121	41.4	6.27	<3.02	----	----	----	----	----	----	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	0.0 U	----	----	----	0.0 U
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	3.485	0.76	0.0 U	-291.6	6.89	210	0.0 U
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	23,800	0.309 J	<0.0700	591,000	<0.121	15.5	13.0 J	<15.1	2.868	0.28	0.5	-279.2	6.90	100	1.4
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	3.160	0.35	0.0 U	-233.8	7.15	130	0.4
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	5.078	0.72	0.5	-107.3	6.19	160	0.4
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	20,400	<0.300	<0.0700	628,000	0.831 J	12.9	19.9 J	4.77 J	3.243	0.35	0.0 U	-162.1	7.01	200	0.0 U
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	3.411	2.36	0.0 U	-71.0	7.01	140	0.4
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	8.021	1.05	0 U	9.8	6.17	140	0 U
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	26,100	0.954 J	<0.0700	742,000	<0.121	257	<4.99	15.9 J	5.619	0.68	0 U	-81.5	6.69	50	0 U
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	3.377	0.09	3.5	-185.5	6.79	150	0.4
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	71,200	4.11 J	<0.700	3,990,000	<1.21	10.8	<25.0	<30.2	32.518	0.90	0.0 U	136.1	6.94	100	0.0 U
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	11.793	0.96	0.0 U	-329.7	6.65	100	0.0 U
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	11.124	1.77	0.0 U	-147.3	6.57	50	0.0 U
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	5.404	1.67	0.0 U	26.5	6.45	250	0.0 U
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	26,600	2.64 J	<0.350	1,170,000	<0.605	34.4	4.77 J	<15.1	7.937	2.99	0.0 U	122.7	6.70	80	0.0 U
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	4.505	1.39	0.0 U	60.0	6.88	250	0.0 U
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	8.150	1.44	0.0 U	65.4	6.90	210	0.0 U
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	22,300	2.57	0.289 J	849,000	0.310 J	13.2	6.57 J	13.0 J	5.920	2.07	0.0 U	172.0	7.19	100	0.0 U
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	4.930	0.14	0.0 U	74.2	7.35	120	0.0 U
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	7.513	1.34	0.0 U	115.2	6.74	140	0.0 U
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	21,200	2.16	<0.0700	790,000	0.240 J	35.0	<4.99	<3.02	6.112	0.61	0.0 U	101.0	7.03	180	0.0 U
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	6.603	0.50	0.0 U	154.1	6.92	480	0.0 U
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	11.972	1.24	0 U	328	6.37	----	0 U
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	29,500	1.80 J	<0.0700	929,000	0.342 J	30.2	5.22 J	6.85 J	7.059	1.65	0 U	255.6	6.9	50	0 U
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	9.096	0.63	0 U	129.4	6.72	180	0 U
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	33,100	3.62	<0.0700	1,640,000	<0.121	7.29	9.14 J	<3.02	11.607	2.38	0.0 U	127.9	7.42	100	0.0 U
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	5.667	2.79	0.0 U	96.9	7.52	100	0.0 U
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	6.053	1.93	0.0 U	110.0	7.58	50	0.0 U
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	2.675	2.64	0.0 U	141.8	7.46	250	0.0 U
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	16,700	1.08 J	<0.0700 UJ	759,000	<0.121 UJ	38.3	7.72	<3.02 UJ	3.613	1.73	0.0 U	-292.7	7.58	100	0.1
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	2.079	1.19	0.0 U	-245.9	7.13	250	0.0 U
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	3.065	0.61	0.0 U	-309.2	7.19	200	0.0 U
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	13,800	<0.300	<0.0700	655,000	<0.121	19.8	<4.99	<3.02	1.654	0.98	0.0 U	-313.7	7.44	0	0.0 U
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	2.452	0.02	0.0 U	-303.7	7.07	130	0.4
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	4.125	0.52	0.0 U	-123.7	6.73	160	0.4
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	15,300	<0.300	<0.0700	606,000	<0.121	27.5	12.0 J	<3.02	3.300	0.32	0.0 U	-73.9	7.04	180	0.0 U
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	3.564	2.68	0.2	135.1	7.11	440	0.0 U
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	14.898	0.97	0 U	309.3	6.8	140	0 U
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	30,400	2.04	<0.0700	1,060,000	<0.121	30.7	<4.99	9.22 J	8.29	1.69	0 U	227	7	50	0 U

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	----	----	----	----	----	----	----	8.605	0.64	0 U	91	6.92	180	0 U
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	25,400	3.31	<0.0700	673,000	<0.121	18.5	22.2	<3.02	5.770	0.87	0.0 U	161.5	7.20	100	0.0 U
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	19,100	2.46	<0.0700 UJ	469,000	0.156 J	8.22	14.1	<3.02 UJ	4.415	2.55	0.0 U	75.3	7.39	80	0.0 U
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	14,500	1.69 J	<0.0700	373,000	<0.121	8.52	9.49 J	6.57 J	181.910	1.08	0.0 U	143.2	7.47	100	0.0 U
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	16,800	1.85 J	<0.0700	420,000	<0.121	23.0	<4.99	<3.02	4.035	0.82	0.0 U	119.7	7.08	180	0.0 U
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	18,000	1.93 J	<0.0700	425,000	<0.121	47.7	9.33 J	5.36 J	3.694	1.94	0 U	273.2	6.53	50	0 U
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	25,400	2.53	<0.0700	596,000	<0.121	4.68	13.3 J	<3.02	5.720	0.77	0.0 U	110.5	8.07	150	0.0 U
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	22,000	2.86	<0.0700 UJ	518,000	0.243 J	15.3	14.3	<3.02 UJ	4.279	2.18	0.0 U	63.8	7.41	80	0.0 U
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	16,700	1.98 J	<0.0700	413,000	<0.121	11.3	13.6 J	<3.02	213.617	0.55	0.0 U	166.5	7.45	130	0.0 U
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	21,000	1.67 J	<0.0700	553,000	<0.121	36.8	12.4 J	<3.02	4.589	0.61	0.0 U	174.8	7.01	200	0.0 U
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	20,100	1.13 J	<0.0700	450,000	<0.121	55.6	10.2 J	8.92 J	4.131	0.73	0 U	238.2	6.83	90	0 U
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	25,500	2.38	<0.0700	646,000	0.186 J	13.6	8.06 J	<3.02	5.015	1.02	0.0 U	209.2	7.09	100	0.0 U
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	18,700	2.23	<0.0700	436,000	<0.121	11.6	7.40 J	<3.02	2.298	15.40	0.0 U	168.4	7.52	200	0.0 U
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	15,400	2.33	<0.0700	318,000	<0.121	6.45	8.42 J	<3.02	2.799	0.93	0.0 U	127.9	7.39	200	0.0 U
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	20,900	2.44	<0.0700	415,000	<0.121	10.1	11.3 J	<3.02	5.069	0.61	0.0 U	36.2	7.16	180	0.0 U
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	17,400	1.90 J	<0.0700	358,000	<0.121	6.81	9.95 J	3.80 J	3.276	1.03	0 U	31.4	7.55	50	0 U
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	6,830	2.15	<0.0700	159,000	<0.121	4.23	17.9 J	<3.02	0.999	2.14	0.0 U	123.8	8.36	100	0.0 U
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	6,430	1.91 J	<0.0700	----	<0.121	3.37	12.9 J	<3.02	0.666	2.14	0.0 U	-139.8	8.59	250	0.0 U
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	6,510	1.89 J	<0.0700	137,000	<0.121	3.10	11.8 J	<3.02	0.888	1.96	0.0 U	104.0	9.13	100	0.0 U
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	6,460 J+	2.25	<0.0700	138,000	<0.121	2.81	6.34 J	<3.02	1.027	0.94	0.0 U	20.5	8.36	180	0.0 U
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	6,150	1.70 J	<0.0700	130,000	<0.121	3.64	13.1 J	<3.02	0.905	2.24	0 U	-32	8.48	50	0 U
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	22,300	2.64	<0.0700	897,000	<0.121	6.59	18.7 J	<3.02	5.348	1.45	0.0 U	125.1	7.95	150	0.0 U
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	22,500	2.82	0.105 J	976,000	0.663 J	52.3	14.2 J	<3.02	2.972	1.05	0.0 U	161.9	6.87	250	0.0 U
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	16,200	<0.300	<0.0700	387,000	<0.121	69.9	65.7	6.91 J	473.418	0.66	0.4	-173.7	6.17	120	6.0
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	18,700	<0.300	<0.0700	448,000	<0.121	5.30	31.2	5.29 J	3.653	0.38	5.5	-124.6	6.30	180	0.0 U
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	25,200	2.07	<0.0700	1,010,000	<0.121	95.8	13.3 J	16.5 J	6.172	1.16	0 U	7	6.57	50	0 U
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	15,200 J	2.71	<0.0700	387,000 J	<0.121	4.94	23.5	<3.02	2.466	5.73	0.0 U	165.2	8.11	200	0.0 U
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	33,300	0.690 J	<0.0700	277,000	<0.121	6.64	21.0	<3.02	1.328	0.91	0.0 U	-309.1	5.99	250	0.0 U
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	18,700	<0.300	<0.0700	299,000	<0.121	1.92	14.4 J	<15.1	1.687	1.02	0.0 U	-307.8	7.07	0	0.0 U
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	20,100	<0.300	0.0721 J	421,000	0.259 J	2.57	8.42 J	<3.02	2.659	0.19	0.0 U	-211.4	6.94	200	0.0 U
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	25,800	<0.300	0.0732 J	478,000	<0.121	3.32	13.9 J	8.39 J	2.629	0.25	0 U	-165.9	6.53	50	0 U
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	30,600	5.89 J	<0.700	1,210,000	<1.21	6.64 J	<4.99	44.4 J	27.119	4.03	0.0 U	165.2	7.15	100	0.0 U
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	8,140	0.707 J	<0.0700	522,000	<0.121	5.45	<4.99	<3.02	14.259	2.61	0.0 U	63.9	7.13	80	0.0 U
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	39,200	5.22 J	<0.350	1,750,000	<0.605	18.7	6.38 J	<15.1	9.893	2.42	0.0 U	134.5	6.47	100	0.0 U
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	52,500	3.17 J	<0.700	2,970,000	<1.21	35.6	5.43 J	<30.2	23.075	1.17	0.0 U	212.9	6.65	180	0.0 U
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	37,400	<1.50	<0.350	1,800,000	<0.605	24.8	7.10 J	<15.1	18.739	-7.04	0 U	367.1	6.59	240	0 U
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	12,500	3.05	<0.0700	390,000	<0.121	7.68	18.9 J	5.37 J	2.380	1.10	0.0 U	121.7	7.62	100	0.0 U
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	10,300	2.31	<0.0700	----	<0.121	7.92	14.0 J	<3.02	1.722	1.93	0.0 U	43.7	7.71	100	0.0 U
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	9,810	1.97 J	<0.0700	246,000	<0.121	7.16	15.9 J	3.04 J	1.622	2.67	0.0 U	-32.6	7.56	100	0.0 U
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	10,000 J+	2.26	<0.0700	227,000	<0.121	6.69	21.9	<3.02	1.625	0.95	0.0 U	44.0	7.78	180	0.0 U
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	8,270	1.76 J	<0.0700	199,000	<0.121	7.28	19.3 J	3.51 J	1.398	1.21	0 U	-27.1	7.75	60	0 U
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	30,800	2.58	<0.0700	968,000	<0.121	2.26	<4.99	3.91 J	6.673	8.63	0.0 U	129.8	8.36	200	0.0 U
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	25,600	<0.300	<0.0700	----	<0.121	65.4	7.90 J	6.02 J	2.618	1.36	0.0 U	-277.0	7.32	60	0.5
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	24,600	<0.300	<0.0700	----	<0.121	62.1	5.85 J	<3.02	----	----	----	----	----	----	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	25,600	<0.300	<0.0700	342,000	<0.121	20.1	18.4 J	<3.02	0.020	8.09	----	-54.8	7.33	100	----
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	25,500	<0.300	<0.0700	342,000	<0.121	18.7	23.0	<3.02	----	----	----	----	----	----	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	17,500	<0.300	<0.0700	276,000	<0.121	13.7	19.6 J	5.25 J	3.244	1.03	5.5	-65.3	6.76	200	0.1
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	17,600	<0.300	<0.0700	280,000	0.282 J	13.0	21.3	8.93 J	----	----	----	----	----	----	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	51,000	3.86	<0.0700	1,990,000	0.152 J	108	<4.99	10.2 J	14.244	0.85	0 U	120.2	6.61	50	0 U
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	49,700	3.61	<0.0700	1,980,000	0.142 J	107	<4.99	<3.02	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	18,500	2.47	<0.0700	409,000	<0.121	3.64	15.4 J	<3.02	2.712	4.29	0.0 U	136.6	8.80	200	0.0 U
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	18,300	2.96	<0.0700	405,000	<0.121	3.66	14.3 J	<3.02	----	----	----	----	----	----	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	16,000	1.13 J	<0.0700 UJ	386,000	<0.121 UJ	12.5	7.59	<3.02 UJ	2.562	1.29	0.0 U	24.7	8.01	120	0.0 U
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	21,100	0.408 J	0.100 J	567,000	<0.121	0.247 J	7.88 J	<15.1	3.549	0.71	6.0	-159.7	6.65	100	0.4

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	Dissolved Metals by SW6010B/SW 6020	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS
						Potassium	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential	pH	Purge Rate	Sulfide
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mS/cm	mg/L	mg/L	mV	SU	mL/min	mg/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	20,200	<0.300	<0.0700	455,000	<0.121	0.234 J	8.63 J	<3.02	3.772	0.40	7.0	-105.2	6.67	200	0.6
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	14,000	<0.300	<0.0700	362,000	<0.121	0.266 J	<4.99	<3.02	2.498	1.55	2	-84.7	7.14	60	2.5
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02	N/A	N/A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03	N/A	N/A	----	----	----	----	----	----	----	----	16.618	2.05	----	-60.4	6.51	----	----
U4-T3	12/6/2022	N	EM04	N/A	N/A	----	----	----	----	----	----	----	----	10.943	3.89	----	-8.5	6.72	----	----
U4-T3	1/9/2023	N	EM05	N/A	N/A	----	----	----	----	----	----	----	----	10.447	5.03	----	111.4	7.05	----	----
U4-T3	2/13/2023	N	EM06	N/A	N/A	----	----	----	----	----	----	----	----	13.131	7.12	----	159.2	7.44	----	----
U4-T3	3/13/2023	N	EM07	N/A	N/A	----	----	----	----	----	----	----	----	9.552	6.11	----	197.0	7.43	----	----
U4-T3	4/19/2023	N	EM08	N/A	N/A	----	----	----	----	----	----	----	----	6.951	0.42	----	-27.7	6.94	----	----
U4-T3	5/18/2023	N	EM09	N/A	N/A	----	----	----	----	----	----	----	----	17.125	3.18	----	49.6	5.71	----	----
U4-T3	6/12/2023	N	EM10	N/A	N/A	----	----	----	----	----	----	----	----	13.126	6.38	----	225.9	6.88	----	----
U4-T3	7/11/2023	N	EM11	N/A	N/A	----	----	----	----	----	----	----	----	0.029	1.56	----	-61.3	6.54	----	----
U4-T3	8/10/2023	N	EM12	N/A	N/A	----	----	----	----	----	----	----	----	4.655	2.7	----	-73.1	6.74	----	----
U4-T3	9/11/2023	N	EM13	N/A	N/A	----	----	----	----	----	----	----	----	6.711	1.03	----	-247	6.23	----	----
U4-T3	10/16/2023	N	EM14	N/A	N/A	----	----	----	----	----	----	----	----	4.54	0.53	----	-216.9	6.05	----	----

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	26.9	22.0	----	----	----	712,000	<150	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	27.5	60.6	----	----	----	54,000,000	77,000	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	26.3	17.1	----	----	----	39,900,000	96,900 J-	1,410 J+	----	----	----	----	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	24.9	58.8	----	----	----	25,800,000	57,600	3,660 J+	----	----	----	----	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	24.1	33.2	----	----	----	18,700,000	39,500	1,030 J+	----	----	----	----	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	22.0	17.3	----	----	----	15,000,000 J	32,300	1,720 J+	----	----	----	----	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	23.0	50.5	----	----	----	22,400,000	43,900	1,240 J+	----	----	----	----	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	23.4	21.0	----	----	----	9,740,000	42,700	1,130 J+	----	----	----	----	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	23.8	21.3	<4.07	<4.26	<2.91	15,300,000	23,100	1,660 J+	<6.1 UJ	28 J	<5.8 UJ	630 J	<5.8 UJ	<5.6 UJ	<5.3 UJ
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	24.3	32.6	----	----	----	18,500,000	34,100	1,460 J+	----	----	----	----	----	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	29.7	9.1	----	----	----	19,900,000	34,200	1,540 J+	----	----	----	----	----	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	27.4	47.1	<4.07	<4.26	49.1	20,400,000	16,600	957 J	----	----	----	----	----	----	----
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	30.3	19.4	----	----	----	18,000,000	43,900 J-	1,540	----	----	----	----	----	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	33.6	16.5	----	----	----	21,500,000	30,800	1,140 J+	----	----	----	----	----	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	27.7	144.9	<4.07	<4.26	5,540	12,500,000	31,600	963 J	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	29.2 J
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	27.9	55.6	----	----	----	19,800,000 J-	28,500	13,900	----	----	----	----	----	----	----
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	30.5	18.3	----	----	----	2,330,000 J	1,510 J-	1,590 J+	----	----	----	----	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	23.5	10.4	<4.07	<4.26	<2.91	2,490,000	1,590	3,420 J+	----	----	----	----	----	----	----
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	27.1	203.3	<4.07	<4.26	233	2,690,000	1,780	1,290 J+	----	----	----	----	----	----	----
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	28.7	84.9	<4.07	<4.26	1,410	2,330,000	1,740	1,430 J+	----	----	----	----	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	29.6	9.9	----	----	----	1,410,000	32.5 J	520 J	----	----	----	----	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	21.5	9.8	<4.07	<4.26	<2.91	2,590,000	45.8	1,020 J+	----	----	----	----	----	----	----
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	36	2	<4.07	<4.26	12.8	2,110,000	23.5	1,480	----	----	----	----	----	----	----
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	25.2	21.0	----	----	----	2,130,000	598	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	25.1	12.0	----	----	----	1,600,000	1,350	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	26.2	8.7	----	----	----	43,600,000	87,000 J-	1,030 J+	----	----	----	----	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	21.8	9.1	<4.07	<4.26	<2.91	606,000	1.43	36,400	----	----	----	----	----	----	----
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	26.5	2.7	----	----	----	4,770,000 J	6,190 J-	2,420 J+	----	----	----	----	----	----	----
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	2,770,000 J	7,860 J-	2,670 J+	----	----	----	----	----	----	----
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	23.0	14.8	<4.07	<4.26	<2.91	6,170,000	16,300	2,230 J+	----	----	----	----	----	----	----
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	23.3	3.9	----	----	----	4,720,000	9,830	12,700	----	----	----	----	----	----	----
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	30.7	12.3	----	----	----	6,020,000	9,400 J-	34,200	----	----	----	----	----	----	----
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	28.8	1.8	----	----	----	8,260,000	17,400	94,200	----	----	----	----	----	----	----
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	29.2	147.7	----	----	----	3,590,000	<30.0	968,000	----	----	----	----	----	----	----
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	34.9	234.5	----	----	----	2,020,000	0.992	217,000	----	----	----	----	----	----	----
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	29.5	1311.9	----	----	----	7,010,000	22.3	3,310,000	----	----	----	----	----	----	----
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	27.9	2139.2	----	----	----	4,630,000 J-	10.1	3,350,000	----	----	----	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	27.0	2.0	----	----	----	10,800,000	17,400	1,540 J+	----	----	----	----	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	21.6	14.7	<4.07	<4.26	<2.91	625,000	7.77	2,720 J+	----	----	----	----	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	24.6	9.8	----	----	----	4,130,000	8,910 J-	1,240 J+	----	----	----	----	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	19.2	7.6	<4.07	<4.26	<2.91	1,340,000	1,980 J-	3,580 J+	----	----	----	----	----	----	----
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	24.3	56.6	----	----	----	3,830,000	6,860	53,000	----	----	----	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	32.0	28.2	----	----	----	3,440,000	5,730	125,000	----	----	----	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	28.1	3.8	----	----	----	3,940,000	2,190	312,000	----	----	----	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	28.7	12.3	----	----	----	4,560,000	3,130	315,000 J-	----	----	----	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	33.7	204.8	----	----	----	3,810,000	1.16	626,000 J-	----	----	----	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	32.5	175.6	----	----	----	4,850,000	11.0	845,000 J-	----	----	----	----	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	29.4	54.2	----	----	----	4,660,000 J-	4.10	535 J	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	28.6	33.2	----	----	----	34,400,000	77,900 J-	1,660 J+	----	----	----	----	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	18,900,000 J-	48,700	971 J	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	17.8	225.3	----	----	----	15,400,000	44,000	1,710 J+	----	----	----	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	22.1	1.8	----	----	----	16,000,000	37,000 J-	1,380 J+	----	----	----	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	21.2	0.0	----	----	----	9,860,000	36,100	1,410 J+	----	----	----	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	22.4	0.1	----	----	----	12,000,000	34,100	1,260 J+	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	11,700,000	35,600	1,920 J+	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	23.7	33.0	<4.07	<4.26	683	12,200,000	35,400	1,520 J+	----	----	----	----	----	----	----
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	21.7	62.2	----	----	----	12,600,000	35,400	83,500	----	----	----	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	30.3	35.2	----	----	----	8,660,000	28,600	213,000	----	----	----	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	28.6	9.5	----	----	----	12,000,000	35,500	123,000	----	----	----	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	30.3	181.7	----	----	----	15,400,000	38,500	28,700	----	----	----	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	34	159.1	----	----	----	15,600,000	36,200	12,200	----	----	----	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	33.9	371.6	----	----	----	15,500,000	35,700	34,500	----	----	----	----	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	30.4	329.6	----	----	----	17,100,000 J-	35,100	122,000	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	25.5	15.1	----	----	----	24,000,000	37,500 J-	1,380 J+	----	----	----	----	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	21.1	13.7	<4.07	<4.26	<2.91	640,000	0.538	3,170 J+	----	----	----	----	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	27.4	28.9	----	----	----	3,430,000	3,380 J-	863 J	----	----	----	----	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	22.2	15.0	<4.07	<4.26	32.4	20,900,000	60,300	1,580 J+	----	----	----	----	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	28.8	45.2	----	----	----	28,400,000	47,900 J-	1,070 J+	----	----	----	----	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	18.5	56.5	<4.07	<4.26	45.8 J+	641,000	0.272 J	2,450 J+	----	----	----	----	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	28.4	10.5	----	----	----	4,070,000	5,710 J-	1,110 J+	----	----	----	----	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	23.0	31.5	<4.07	<4.26	<2.91	2,690,000	8,200	2,960 J+	----	----	----	----	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	23.5	37.2	<4.07	<4.26	<2.91	9,590,000	10,800	605 J	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	25.8	11.6	<4.07	<4.26	<2.91	3,220,000	2,420	863 J	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	<4.07	<4.26	<2.91	3,150,000	3,210	909 J	----	----	----	----	----	----	----
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	9,760,000 J-	9,930	221,000	----	----	----	----	----	----	----
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----	----	----	5,900,000	3,080	659,000	----	----	----	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	23.2	38.3	----	----	----	6,870,000	1,860 J-	69,200	----	----	----	----	----	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	23.0	4.4	----	----	----	7,540,000	17,700	117,000	----	----	----	----	----	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	23.0	75.8	----	----	----	7,500,000	158 J-	516,000	----	----	----	----	----	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	15.5	29.5	----	----	----	4,760,000	34.3 J-	399,000	----	----	----	----	----	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	25.4	64.2	----	----	----	4,860,000	1,190	198,000	----	----	----	----	----	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	33.7	59.0	----	----	----	18,800,000	37,200	29,900	----	----	----	----	----	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	26.4	60.6	----	----	----	11,600,000	25,300	66,900 J-	----	----	----	----	----	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	30.3	244.0	----	----	----	13,200,000	22,800	10,600	----	----	----	----	----	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	27.5	29.3	----	----	----	11,700,000	28,200	54,700	----	----	----	----	----	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	32.3	165	----	----	----	7,360,000	7.42	1,270,000	----	----	----	----	----	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	31.4	534.4	----	----	----	6,000,000 J-	30.1	486,000	----	----	----	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	18.5	16.0	<4.07	<4.26	<2.91	37,900,000	76,300 J-	3,200 J	----	----	----	----	----	----	----
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	20.2	2.8	<4.07	<4.26	<2.91	6,860,000	12,200 J	2,760 J	----	----	----	----	----	----	----
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----	----	----	17,000,000	48,700	12,500	----	----	----	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	22.3	21294.5	----	----	----	12,800,000	42,300 J-	18,800	----	----	----	----	----	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	24.0	3.7	----	----	----	15,000,000	38,500	17,100	----	----	----	----	----	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	21.9	0.2	----	----	----	11,800,000	39,800	4,110	----	----	----	----	----	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	21.8	1.1	----	----	----	13,100,000	43,200	10,100	----	----	----	----	----	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	24.2	79.0	----	----	----	12,500,000	41,600	6,770	----	----	----	----	----	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	23.9	12.1	----	----	----	12,300,000	35,400	8,630	----	----	----	----	----	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	34.0	189.9	----	----	----	12,800,000	31,700	6,020	----	----	----	----	----	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	27.4	8.7	----	----	----	9,840,000	29,400	7,650 J+	----	----	----	----	----	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	34.4	398.2	----	----	----	11,300,000	33,100	11,400	----	----	----	----	----	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	28.5	274.4	----	----	----	12,200,000	30,400	10,700	----	----	----	----	----	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	33.3	246.8	----	----	----	15,900,000	36,500	15,700	----	----	----	----	----	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	30.4	597.3	----	----	----	15,200,000 J-	37,600	13,800	----	----	----	----	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	20.2	3.6	<4.07	<4.26	<2.91	39,500,000	85,100 J-	3,170 J	----	----	----	----	----	----	----
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----	----	----	24,000,000	69,700	2,450	----	----	----	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	21.8	24.9	----	----	----	22,800,000	60,100 J-	2,770 J+	----	----	----	----	----	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	23.8	-0.4	----	----	----	23,600,000	52,600 J-	2,490 J+	----	----	----	----	----	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	21.7	0.0	----	----	----	14,100,000	52,500	2,610 J+	----	----	----	----	----	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	21.7	11.6	----	----	----	15,800,000	51,000	2,770	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	24.5	72.7	----	----	----	16,100,000	47,800	3,510 J+	----	----	----	----	----	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	24.2	2.4	----	----	----	17,200,000	42,700	3,960	----	----	----	----	----	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	33.3	149.7	----	----	----	18,900,000	37,700	5,820 J+	----	----	----	----	----	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	27.4	10.9	----	----	----	16,600,000	36,800	3,530	----	----	----	----	----	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	31.1	3385.4	----	----	----	16,500,000	42,100	3,900 J+	----	----	----	----	----	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	26.7	5.2	<4.07	<4.26	<2.91	7,500,000	26,400 J-	875 J	----	----	----	----	----	----	----
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	25.0	53.8	<4.07	<4.26	<2.91	5,550,000	13,000	1,280 J	----	----	----	----	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	23.0	13.1	<4.07	<4.26	<2.91	3,940,000	9,360	766 J	----	----	----	----	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	21.6	17.0	<4.07	<4.26	<2.91	3,690,000	17,000	1,790 J	----	----	----	----	----	----	----
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	30.0	7.9	----	----	----	7,230,000	16,500 J-	952 J	----	----	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	22.9	55.9	----	----	----	----	31,700	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	22.7	543.3	<4.07	<4.26	<2.91	11,300,000	26,300	768 J	----	----	----	----	----	----	----
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	26.1	437.1	<4.07	<4.26	<2.91	7,810,000	19,500	742 J	----	----	----	----	----	----	----
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	29.3	110.3	<4.07	<4.26	<2.91	3,940,000	18,300	456 J	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	33.3	27.7	----	----	----	1,040,000	477 J	1,120 J+	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	1,020,000	458 J	1,080 J+	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	24.7	56.4	<4.07	<4.26	<2.91	3,960,000	11,400	1,100 J+	----	----	----	----	----	----	----
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	31.4	73.2	<4.07	<4.26	<2.91	4,250,000	9,380	1,010 J+	----	----	----	----	----	----	----
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	28.6	55.4	<4.07	<4.26	<2.91	3,910,000	11,000	447 J	----	----	----	----	----	----	----
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	27.3	60.1	----	----	----	3,790,000	<150 UJ	1,160 J+	----	----	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	23.5	2768.5	<4.07	<4.26	11.4	12,700,000	26,500	751 J	----	----	----	----	----	----	----
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	27.3	515.2	<4.07	<4.26	<2.91	7,010,000	18,000	706 J	----	----	----	----	----	----	----
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	30.9	151	<4.07	<4.26	29.9	5,630,000	19,300	494 J	----	----	----	----	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	27.6	1501.7	----	----	----	3,130,000	1,770 J-	972 J	----	----	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	24.7	147.1	<4.07	<4.26	<2.91	2,670,000	1,330	1,420 J+	----	----	----	----	----	----	----
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	28.4	158.0	<4.07	<4.26	<2.91	2,950,000	1,440	803 J	----	----	----	----	----	----	----
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	28.8	167.4	<4.07	<4.26	2,150	2,850,000	1,460	963 J	----	----	----	----	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	26.4	5.4	----	----	----	63,700,000	95,800	1,570 J	----	----	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	26.1	2.9	----	----	----	75,100,000 J-	148,000	787 J	----	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	27.6	1.4	----	----	----	53,300,000	139,000	558 J	----	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	23.6	5.1	----	----	----	29,900,000	152,000 J-	924 J	----	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	23.0	3.5	----	----	----	36,600,000	110,000	1,850 J	----	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	23.7	11.6	----	----	----	44,500,000	120,000 J-	869 J	----	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	24.8	8.9	<4.07	<4.26	<2.91	51,200,000	106,000	1,830 J+	<12 UJ	49 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	26.0	9.4	----	----	----	41,000,000	122,000	1,620	----	----	----	----	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	25.5	12.2	----	----	----	26,900,000 J	107,000 J-	1,930 J+	----	----	----	----	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	28.1	3.4	<4.07	<4.26	<2.91	42,700,000	95,500	1,140 J+	<12	34 J	<12	1,100 J+	<12	<11	<11
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	27.7	32.3	----	----	----	55,900,000	109,000	1,680 J+	----	----	----	----	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	29.4	4	----	----	----	41,000,000	96,200	1,380 J+	----	----	----	----	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	28.9	92.1	<4.07	<4.26	67.6	39,000,000	92,700	1,570 J+	<12.2	28.8 J	<11.5	<11.0	<11.5 UJ	<11.1 UJ	<10.6
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	26.1	28.9	----	----	----	37,300,000	115,000	1,070	----	----	----	----	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	28.4	15.2	----	----	----	6,660,000	12,800	1,100 J+	----	----	----	----	----	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	25.3	56.9	----	----	----	11,000,000	33,900	8,510	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	25.0	36.2	----	----	----	15,700,000	48,200	88,500	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	20,400,000	46,600	75,900	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	14.5	5.0	----	----	----	1,860,000 J	3,720 J-	31,600 J	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	3,300,000 J	3,620	161,000 J	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	8,500,000	21,700	76,100	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	8,640,000	21,900	74,900 J-	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	23.4	115.7	----	----	----	26,500,000	69,100 J-	10,700	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	24,800,000	69,400 J-	13,300	----	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	25.4	37.4	<4.07	<4.26	3,560	30,400,000	69,400	12,000	<12 UJ	60 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	----	----	<4.07	<4.26	3,310	29,100,000	68,600	12,700	<12 UJ	61 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	25.3	129.2	----	----	----	2,060,000	3.98 J-	104,000	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	1,990,000	4.15 J-	105,000	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	26.8	30.3	----	----	----	2,200,000	4.96	141,000 J	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	2,770,000	5.57	35,900 J	----	----	----	----	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	30.7	13.7	<4.07	<4.26	6,720	2,860,000	1.15	159,000	<1.2	200	48	94	<1.2	<1.1	8.0 J
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	----	----	<4.07	<4.26	6,540	2,990,000	1.28	157,000	<1.2	190	46	98	<1.2	<1.1	8.2 J
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	27.0	79.4	----	----	----	2,810,000	0.301 J	255,000 J-	----	----	----	----	----	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	2,690,000 J-	0.573	291,000 J-	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	32.7	20.9	----	----	----	8,140,000	6,390	19,700	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	9,020,000	5,680	19,500	----	----	----	----	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	28	102	<4.07	<4.26	9,930	7,750,000	867	253,000	<3.0	122 J	75.4 J	<2.7	<2.9 UJ	<2.8 UJ	11.8 J
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	----	----	<4.07	<4.26	10,300	6,530,000	869	253,000	<60.9	213 J	91.0 J	<54.9	<57.6 UJ	<55.5 UJ	<53.0
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	26.9	43.3	----	----	----	9,840,000 J	24,700	25,000	----	----	----	----	----	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	14,000,000 J	25,000	24,900	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	26.7	31.0	----	----	----	23,000,000	42,100	964 J	----	----	----	----	----	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	22.6	35.4	----	----	----	----	31,800	----	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	23.8	35.8	<4.07	<4.26	59.1 J	14,400,000	28,100	816 J	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	----	----	<4.07	<4.26	<2.91 UJ	13,400,000	27,200	831 J	----	----	----	----	----	----	----
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	26.5	236.1	<4.07	<4.26	<2.91	10,000,000	28,000	538 J	----	----	----	----	----	----	----
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	27.1	385	<4.07	<4.26	920	14,700,000	34,700 J	1,900	----	----	----	----	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	26.3	24.2	----	----	----	2,070,000	2,660	999 J	----	----	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	22.1	-57.2	<4.07	<4.26	<2.91	567,000	60.5	846 J	----	----	----	----	----	----	----
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	28.0	20.2	<4.07	<4.26	<2.91	556,000	42.9	274 J	----	----	----	----	----	----	----
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	30.1	28.4	<4.07	<4.26	<2.91	560,000	20.7	161 J	----	----	----	----	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	30.2	8489.8	----	----	----	2,350,000	<150 UJ	3,300 J+	----	----	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	25.2	159.7	<4.07	<4.26	<2.91	12,000,000	24,500	1,260 J+	----	----	----	----	----	----	----
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	29.9	181.6	<4.07	<4.26	35.1	12,300,000	11,400	607 J	----	----	----	----	----	----	----
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	----	----	<4.07	<4.26	33.9	12,100,000	11,500	620 J	----	----	----	----	----	----	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	36.1	76.7	<4.07	<4.26	316 J	14,900,000	26,400	1,120 J+	----	----	----	----	----	----	----
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	----	----	<4.07	<4.26	149 J	13,700,000	26,700	1,190 J+	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	27.3	38.0	----	----	----	2,890,000	1,390 J-	1,200 J+	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	2,190,000 J-	1,390 J-	1,320 J+	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	22.1	-21.0	<4.07	<4.26	<2.91	2,440,000 J	2,300	1,480 J+	----	----	----	----	----	----	----
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	27.3	21.3	<4.07	<4.26	799	2,880,000	2,470	2,310 J+	----	----	----	----	----	----	----
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	27.3	7.7	<4.07	<4.26	3,620	2,470,000	1,840	5,950	----	----	----	----	----	----	----
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	30.1	18.0	----	----	----	56,100,000	103,000 J	7,260 J+	----	----	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	21.5	38.7	----	----	----	----	18,300	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	20.3	420.1	<4.07	<4.26	<2.91	5,570,000 J	14,300	1,210 J+	----	----	----	----	----	----	----
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	37.5	7.3	<4.07	<4.26	1,030	5,170,000	5,350	57,600	----	----	----	----	----	----	----
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	28.7	14.3	<4.07	<4.26	15,100	9,070,000	19,800	4,430	----	----	----	----	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	27.6	78.2	----	----	----	22,500,000	34,300 J-	1,530 J+	----	----	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	23.3	482.0	<4.07	<4.26	<2.91	19,200,000	38,600	1,200 J+	----	----	----	----	----	----	----
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	32.3	185.0	<4.07	<4.26	148	13,200,000	34,300	39,000	----	----	----	----	----	----	----
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	28.4	403.3	<4.07	<4.26	3,910	30,700,000	63,400	1,630	----	----	----	----	----	----	----
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	28.3	39.5	----	----	----	27,800,000	73,100 J-	1,710 J	----	----	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	28.3	235.7	----	----	----	30,400,000 J-	69,500	1,300 J	----	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	23.6	92823.7	----	----	----	15,100,000	46,500	1,450 J+	----	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	23.1	106.9	----	----	----	15,100,000	44,900	1,200 J+	----	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	22.5	138.6	----	----	----	10,200,000	44,700	1,200 J+	----	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	15.4	268.7	----	----	----	9,200,000	31,800	1,090	----	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	24.8	331.6	<4.07	<4.26	55.6 J+	11,400,000	28,200	1,370 J+	<6.1	28 J	<5.8	620 J+	<5.8	<5.6	<5.3
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	27.4	130.7	----	----	----	6,160,000	18,900	4,520	----	----	----	----	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	28.4	22.4	----	----	----	3,790,000	10,400	94,100	----	----	----	----	----	----	----
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	34.4	127.1	<4.07	<4.26	1,860	6,880,000	5,460	129,000	<3.0	150	24 J	280	<2.9	<2.8	16 J
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	31.1	127.0	----	----	----	8,820,000	7,530	22,100	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	36.5	54.6	----	----	----	9,980,000	15,300	50,700	----	----	----	----	----	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	29.4	28.3	<4.07	<4.26	23,000	4,150,000	2,260	127,000	<3.0	111	21.9 J	<2.7	<2.9 UJ	<2.8 UJ	12.0 J
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	31.1	76.6	----	----	----	9,400,000	10,200	185,000 J-	----	----	----	----	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	23.2	2057.3	----	----	----	12,900,000	42,800 J-	1,460 J+	----	----	----	----	----	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	25.6	1860.6	----	----	----	29,100,000	70,800	1,180 J	----	----	----	----	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	24.1	90637.6	----	----	----	22,800,000	61,900 J-	1,370 J+	----	----	----	----	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	23.3	1119.7	----	----	----	19,400,000 J	49,600	1,630 J+	----	----	----	----	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	23.1	7501.5	----	----	----	10,300,000	45,300	1,400 J+	----	----	----	----	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	22.3	1495.6	----	----	----	9,860,000	36,900	1,260 J+	----	----	----	----	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	24.0	6501.9	<4.07	<4.26	<2.91	9,700,000	30,400	1,990 J+	<3.0	14 J	<2.9	290	2.9 J	<2.8	11 J
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	26.2	62.0	----	----	----	3,810,000	5,170	379,000	----	----	----	----	----	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	26.6	61.6	----	----	----	4,590,000	1.83	531,000 J-	----	----	----	----	----	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	34.2	28.6	<4.07	<4.26	1,350	3,650,000	4.86	485,000 J-	<6.1	460	170	120	<5.8	<5.6	15 J
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	29.0	5574.9	----	----	----	8,240,000	5,340	54,600 J-	----	----	----	----	----	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	36.7	168	----	----	----	7,900,000	1,150	131,000	----	----	----	----	----	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	28.2	5801.7	<4.07	<4.26	21,300	4,520,000	293	98,100 J-	<30.4	145 J	<28.8	<27.4	<28.8 UJ	<27.8 UJ	32.9 J
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	28.2	1318.1	----	----	----	7,100,000	390	66,000 J-	----	----	----	----	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	43,400,000	73,100 J-	1,350 J+	----	----	----	----	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	21.3	76.0	----	----	----	----	36,900 J-	----	----	----	----	----	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	21.2	55.0	<4.07	<4.26	<2.91	16,000,000	36,500	919 J	----	----	----	----	----	----	----
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	20.3	-2.7	<4.07	<4.26	<2.91	12,500,000	29,300	863 J	----	----	----	----	----	----	----
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	34.2	52.2	<4.07	<4.26	14,500	11,800,000	31,500	180,000	----	----	----	----	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	27.5	171.5	----	----	----	3,420,000	3,070 J-	1,190 J+	----	----	----	----	----	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	18.2	204.9	<4.07	<4.26	<2.91	17,100,000	42,800	1,660 J+	----	----	----	----	----	----	----
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	22.3	-4.5	<4.07	<4.26	110	12,600,000	29,000	4,040	----	----	----	----	----	----	----
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	36.9	23.1	<4.07	<4.26	12,100	16,800,000	35,200	73,800	----	----	----	----	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	26.7	52.5	----	----	----	5,820,000	23,900 J+	631 J	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	28.7	9.7	----	----	----	1,310,000 J-	2,080	1,630 J+	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	1,330,000	2,120	1,490 J+	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	23.9	97.4	----	----	----	1,220,000 J+	1,610 J-	1,680 J+	----	----	----	----	----	----	----
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	23.8	14.1	----	----	----	1,050,000	1,080 J-	1,580 J+	----	----	----	----	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	24.3	22.8	----	----	----	1,260,000	1,380 J-	1,480 J+	----	----	----	----	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	22.3	73.4	----	----	----	1,070,000	1,250 J-	1,320	----	----	----	----	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	28.6	39.6	<4.07	<4.26	53.0 J+	1,070,000	922	1,930 J+	<0.61	2.8 J	<0.58	61 J+	<0.58	<0.56	<0.53
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	26.2	106.9	----	----	----	3,630,000	5,020	416,000	----	----	----	----	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	27.5	34.4	----	----	----	3,170,000	692	1,390 J+	----	----	----	----	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	32.9	8.8	<4.07	<4.26	18,000	3,280,000	1,160 J-	392,000 J-	<12	370 J+	150	120 J+	<12	<11	19 J
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	30.8	156.5	----	----	----	13,200,000	29,900	38,900	----	----	----	----	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	28.9	214.8	----	----	----	11,800,000	26,900	192,000	----	----	----	----	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	29.2	41.7	<4.07	<4.26	17,700	7,100,000	15,700	129,000	<30.4	174 J	54.0 J	<27.4	<28.8 UJ	<27.8 UJ	43.0 J
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	26.8	25.5	----	----	----	11,800,000	23,100	282,000 J-	----	----	----	----	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	25.6	10.7	----	----	----	1,670,000	4,810 J+	2,760 J+	----	----	----	----	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	26.9	119.0	----	----	----	1,350,000 J	2,720	1,370 J+	----	----	----	----	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	23.9	1667.5	----	----	----	1,340,000	1,650 J-	1,530 J+	----	----	----	----	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	24.0	210.3	----	----	----	1,220,000	1,360 J-	1,630 J+	----	----	----	----	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	24.3	73.4	----	----	----	1,440,000	1,810 J-	1,420 J+	----	----	----	----	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	22.3	134.0	----	----	----	1,520,000	2,640 J-	1,250	----	----	----	----	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	24.3	259.7	<4.07	<4.26	54.8 J+	1,630,000 J	2,670 J-	25,900 J-	<0.61	3.0 J	<0.58	66 J+	<0.58	<0.56	<0.53
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	26.1	277.9	----	----	----	2,670,000	4,860	113,000	----	----	----	----	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	26.1	156.9	----	----	----	2,820,000	0.158 J	352,000	----	----	----	----	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	29.9	105.6	<4.07	<4.26	376	3,030,000	<15.0	171,000	<3.0	260	7.8 J	220	6.6 J	<2.8	12 J
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	27.5	504.0	----	----	----	7,260,000	1,900	47,900	----	----	----	----	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	30	218.7	----	----	----	7,180,000	7,420 J-	255,000	----	----	----	----	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	29	97.1	<4.07	<4.26	14,700	5,300,000	4,220	409,000 J-	<30.4	330	207 J	<27.4	<28.8 UJ	<27.8 UJ	38.4 J

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	25.8	100.1	----	----	----	7,440,000	340	271 J	----	----	----	----	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	24.7	98.8 E	<4.07	<4.26	<2.91	48,000,000	106,000	3,420 J	----	----	----	----	----	----	----
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	22.4	21.7	<4.07	<4.26	166	14,700,000	52,900 J-	6,460	----	----	----	----	----	----	----
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	21.6	144.4	<4.07	<4.26	22,600	22,700,000	44,800	10,900 J-	----	----	----	----	----	----	----
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	27.2	142.7	<4.07	<4.26	31,700	37,200,000	55,900	9,200 J+	----	----	----	----	----	----	----
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	28.6	193.8	<4.07	<4.26	21,800	31,900,000	85,600	1,930 J+	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	24.6	62.4	<4.07	<4.26	<2.91	1,240,000	694	670 J	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	<4.07	<4.26	<2.91	1,220,000	723	672 J	----	----	----	----	----	----	----
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	21.4	20.3	<4.07	<4.26	<2.91	751,000 J	384	1,170 J+	----	----	----	----	----	----	----
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	24.5	8.5	<4.07	<4.26	<2.91	2,690,000	1,280	935 J	----	----	----	----	----	----	----
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	26.6	124.9	<4.07	<4.26	<2.91	2,380,000	1,270	550 J	----	----	----	----	----	----	----
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	27.1	9.8	<4.07	<4.26	<2.91	1,330,000 J	504	214 J	----	----	----	----	----	----	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	22.8	-5857914.0 E	<4.07	<4.26	<2.91	3,380,000	7,950	1,740 J	----	----	----	----	----	----	----
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	22.7	304.1	<4.07	<4.26	57.2	11,000,000	33,700	1,790 J+	----	----	----	----	----	----	----
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	----	----	<4.07	<4.26	55.5	----	34,200 J-	1,310 J+	----	----	----	----	----	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	20.5	641.8	<4.07	<4.26	17,900	22,300,000	54,200	1,640 J+	----	----	----	----	----	----	----
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	25.2	49.9	<4.07	<4.26	4,260	5,340,000	11,600	12,000	----	----	----	----	----	----	----
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	27.1	82.9	<4.07	<4.26	10,200	9,260,000	30,800	5,260	----	----	----	----	----	----	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	27.1	55.4	<4.07	<4.26	<2.91	1,970,000	506 J+	1,190 J+	----	----	----	----	----	----	----
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	22.4	182.5	<4.07	<4.26	427	1,600,000	254 J-	3,390 J+	----	----	----	----	----	----	----
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	----	----	<4.07	<4.26	472	1,850,000	265 J-	2,830 J+	----	----	----	----	----	----	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	31.0	2.9	<4.07	<4.26	21,300	1,570,000	<0.150	9,910	----	----	----	----	----	----	----
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	----	----	<4.07	<4.26	21,300	1,410,000	<0.750 UJ	12,800 J-	----	----	----	----	----	----	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	26.7	192.0	<4.07	<4.26	23,300	2,530,000	<15.0	190,000 J-	----	----	----	----	----	----	----
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	----	----	<4.07	<4.26	26,800	2,110,000	<15.0	201,000 J-	----	----	----	----	----	----	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	29	154.1	<4.07	<4.26	23,900	1,710,000	<0.150	52,200 J-	----	----	----	----	----	----	----
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	----	----	<4.07	<4.26	24,800	1,580,000	<0.150	51,600 J-	----	----	----	----	----	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	24.3	640.2	<4.07	<4.26	<2.91	30,000,000	67,800	1,590 J	----	----	----	----	----	----	----
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	22.1	305.7	<4.07 UJ	<4.26 UJ	291	3,560,000	7,060 J-	751 J	----	----	----	----	----	----	----
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	22.9	678.2	<4.07	<4.26	13,400	4,200,000	3,520	146,000	----	----	----	----	----	----	----
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	29.0	13.1	<4.07	<4.26	4,200	3,820,000	1,490	223,000	----	----	----	----	----	----	----
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	29.6	7.4	<4.07	<4.26	28,900	4,020,000	2,990	87,700	----	----	----	----	----	----	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	23.2	25.6	<4.07	<4.26	<2.91	759,000 J	121	493 J	----	----	----	----	----	----	----
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	22.6	11.4	<4.07 UJ	<4.26 UJ	<2.91 UJ	693,000	134	398 J	----	----	----	----	----	----	----
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	20.1	26.7	<4.07	<4.26	<2.91	1,290,000	215 J-	310 J	----	----	----	----	----	----	----
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	32.4	26.3	<4.07	<4.26	<2.91	1,210,000 J	94.8	699 J	----	----	----	----	----	----	----
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	29.8	14.4	<4.07	<4.26	2,520	1,880,000	<0.300	9,120	----	----	----	----	----	----	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	24.5	322.6	<4.07	<4.26	<2.91	2,030,000	2,320	1,090 J+	----	----	----	----	----	----	----
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	22.6	1626.2	<4.07 UJ	<4.26 UJ	194	6,780,000	13,500 J-	1,040 J+	----	----	----	----	----	----	----
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	24.5	1692.0	<4.07	<4.26	18,200	4,970,000	7,920	43,900	----	----	----	----	----	----	----
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	28.3	49.1	<40.7	<42.6	7,840	4,140,000	1,130	33,900	----	----	----	----	----	----	----
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	29.4	132	<4.07	<4.26	34,600	5,690,000	5,850	33,600	----	----	----	----	----	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	23.4	33.5	<4.07	<4.26	<2.91	1,900,000	387	892 J	----	----	----	----	----	----	----
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	21.6	60.9	<4.07 UJ	<4.26 UJ	<2.91 UJ	3,460,000 J	2,740 J-	999 J	----	----	----	----	----	----	----
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	23.0	99.2	<4.07	<4.26	4,840	2,960,000	2,630	2,440 J+	----	----	----	----	----	----	----
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	26.6	7.3	<4.07	<4.26	11,800	3,740,000	<15.0	724,000 J-	----	----	----	----	----	----	----
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	27.3	57.2	<4.07	<4.26	24,500	3,690,000	<0.150 UJ	895,000 J-	----	----	----	----	----	----	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	22.6	52.9	<4.07	<4.26	<2.91	4,840,000	5,450	1,020 J+	----	----	----	----	----	----	----
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	22.9	43.2	<4.07	<4.26	257	2,400,000	3,640 J-	868 J	----	----	----	----	----	----	----
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	22.4	-399.7	<4.07	<4.26	29,800	3,170,000	1.22	225,000	----	----	----	----	----	----	----
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	27.1	14.9	<4.07	<4.26	26,700	2,340,000	0.228 J	234,000	----	----	----	----	----	----	----
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	31.3	49.9	<4.07	<4.26	35,300	2,200,000	<0.150	10,700	----	----	----	----	----	----	----
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	23.9	72915.5	<4.07	<4.26	<2.91	5,670,000	6,160	1,200 J+	----	----	----	----	----	----	----
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	23.2	48.5	<4.07	<4.26	50.1	1,870,000	566 J-	3,630 J+	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	23.1	-345.3	<4.07	<4.26	20,300	3,110,000	1.11	11,400	----	----	----	----	----	----	----
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	25.7	22.8	<4.07	<4.26	21,500	2,240,000	0.333 J	257,000	----	----	----	----	----	----	----
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	30.5	55.3	<4.07	<4.26	25,500	2,570,000	0.261 J	43,800	----	----	----	----	----	----	----
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	23.3	218.4	<4.07	<4.26	<2.91	34,200,000	90,100 J+	3,440 J+	<6.1	25 J	<5.8	460	<5.8	<5.6	<5.3
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	31.6	74.6	----	----	----	34,600,000	93,300	20,200 J+	----	----	----	----	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	23.7	155.4	----	----	----	40,200,000	96,300	1,360 J+	----	----	----	----	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	22.8	53.4	----	----	----	38,300,000	91,100	1,820 J+	----	----	----	----	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	16.9	21.4	<4.07 UJ	<4.26 UJ	215	27,000,000	32,300 J-	33,300	<3.0	27 J+	4.1 J	320 J+	<2.9	<2.8	6.7 J
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	21.5	254.4	----	----	----	24,800,000	74,400	5,100	----	----	----	----	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	21.3	55.2	----	----	----	25,800,000	76,700	6,540	----	----	----	----	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	20.0	303.2	<4.07	<4.26	19,400	22,900,000	55,600 J-	5,970 J-	<12	<25	<12	670 J+	<12	<11	<11
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	25.2	154.0	----	----	----	23,800,000	45,700	8,540	----	----	----	----	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	24.2	83.1	----	----	----	647,000	47,300	3,860	----	----	----	----	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	22.1	4.2	<4.07	<4.26	29,300	25,900,000	71,900	5,300	<12	36 J	<12	1,100	<12	<11	<11
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	27.2	52.9	----	----	----	22,400,000	62,600 J-	6,680	----	----	----	----	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	27.6	132.3	----	----	----	24,900,000	59,700 J-	30,700	----	----	----	----	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	28.6	35	<4.07	<4.26	24,000	22,400,000	58,100	13,200	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	<26.5
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	25.6	278.7	----	----	----	19,200,000	53,700	181,000 J	----	----	----	----	----	----	----
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	26.3	99.8	<4.07	<4.26	<2.91	2,730,000	6,370	1,040 J+	<1.2	3.6 J	<1.2	91	<1.2	<1.1	<1.1
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	27.0	384.2	----	----	----	2,470,000	1,320 J	208,000	----	----	----	----	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	2,690,000	1,330 J	201,000	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	24.4	170.6	----	----	----	2,200,000	0.753 J-	61,800 J	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	2,450,000	0.886	306,000 J	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	23.3	36.5	----	----	----	2,390,000	1.95	364,000	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	2,340,000	2.25	370,000	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	23.8	41.5	<4.07 UJ	<4.26 UJ	5,160	2,550,000	1.79 J	55,800 J	<6.1 UJ	480 J-	11 J	21 J	<5.8 UJ	<5.6 UJ	8.7 J
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	<4.07 UJ	<4.26 UJ	5,360	2,610,000	0.403 J	276,000 J	<6.1 UJ	490 J-	15 J	53 J	<5.8 UJ	<5.6 UJ	10 J
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	23.3	169.3	----	----	----	1,610,000	0.800	189,000 J-	----	----	----	----	----	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	1,750,000	0.556	195,000 J-	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	20.1	50.9	----	----	----	8,560,000	<0.150	165,000	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	7,900,000	0.324 J	186,000	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	20.3	130.6	<4.07	<4.26	23,600	2,020,000	<0.150 UJ	188,000 J-	<3.0	270	<2.9	59 J+	<2.9	<2.8	4.4 J
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	21,400	2,030,000	<0.150 UJ	197,000 J-	<3.0	290	<2.9	58 J+	<2.9	<2.8	3.7 J
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	24.3	377.3	----	----	----	1,950,000	<0.150	146,000 J-	----	----	----	----	----	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	2,070,000	0.158 J	147,000	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	26.7	1679.2	----	----	----	2,390,000	<0.150 R	89,600 J-	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	2,430,000	<0.150 R	89,600 J-	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	32.3	63.7	<4.07	<4.26	23,000	1,960,000	<0.150	103,000	1.3 J	90	<0.58	63	0.63 J	<0.56	7.6
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	24,000	1,910,000	<0.150	103,000	0.96 J	95	<0.58	61	<0.58	<0.56	7.8
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	27.1	39.7	----	----	----	2,070,000 J	<0.150	79,100 J-	----	----	----	----	----	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	2,070,000 J	<0.150	82,900 J-	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	27	69.7	----	----	----	9,340,000	556	11,700	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	10,100,000	299	12,800	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	33.4	15.2	<4.07	<4.26	24,100	7,240,000	2,050	12,500	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	30.1 J
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	21,000	7,060,000	2,050	12,000	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	44.6 J
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	24.5	115.7	----	----	----	19,800,000 J-	29,500	10,500	----	----	----	----	----	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	16,200,000 J-	29,500	10,700	----	----	----	----	----	----	----
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	26.2	40.3	<4.07	<4.26	<2.91	29,700,000	63,700 J-	1,440 J+	<6.1	26 J	<5.8	460	<5.8	43 J	<5.3
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	27.2	97.6	----	----	----	14,900,000	41,900	903 J	----	----	----	----	----	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	23.4	141.7	----	----	----	19,300,000 J-	50,700	1,020 J+	----	----	----	----	----	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	20.8	84.0	----	----	----	16,600,000	47,900	469 J	----	----	----	----	----	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	17.7	89.2	<4.07	<4.26	410	13,400,000	39,900	2,090 J+	<6.1 R	49 J	<5.8 R	<5.5 R	6.9 J	<5.6 R	9.4 J
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	21.3	23.7	----	----	----	14,300,000	39,300	1,970 J+	----	----	----	----	----	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	22.0	44.6	----	----	----	13,800,000	37,000 J-	2,920	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	20.5	234.2	<4.07	<4.26	26,600	12,700,000	28,700	34,300	<6.1	65	<5.8	260	<5.8	<5.6	<5.3
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	27.5	32.0	----	----	----	9,900,000	43,400	14,800	----	----	----	----	----	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	28.5	33.5	----	----	----	21,200,000	46,500	5,670 J+	----	----	----	----	----	----	----
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	21.3	53.6	<4.07	<4.26	20,600	8,760,000	35,200	2,000	<12	28 J	<12	1,200	<12	<11	<11
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	33.1	27.3	----	----	----	8,720,000	16,800	13,700	----	----	----	----	----	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	28	87.7	----	----	----	7,950,000	15,600	3,810	----	----	----	----	----	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	29.7	17.6	<4.07	<4.26	24,100	6,550,000	11,900	7,900	<3.0	10.9 J	<2.9	<2.7	<2.9 UJ	<2.8 UJ	6.1 J
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	24.4	405.8	----	----	----	6,920,000	9,270 J-	98,800	----	----	----	----	----	----	----
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	26.1	988.9	<4.07	<4.26	<2.91	8,680,000	21,200	1,630 J	<6.1	<12	<5.8	240	<5.8	<5.6	<5.3
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	----	----	<4.07	<4.26	<2.91	8,670,000	19,400	1,930 J	<6.1	<12	<5.8	220	<5.8	<5.6	<5.3
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	27.4	70.6	----	----	----	2,360,000	2,880 J-	1,440 J+	----	----	----	----	----	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	23.5	343.0	----	----	----	2,410,000 J-	2,060	4,410 J+	----	----	----	----	----	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	22.6	123.8	----	----	----	4,360,000	1,520	11,100	----	----	----	----	----	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	20.5	20.9	<4.07	<4.26	1,070	1,370,000	<0.150 UJ	95,000	<1.2 R	170 J-	<1.2 R	110 J-	2.1 J	<1.1 R	6.9 J
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	----	----	<4.07	<4.26	1,110	----	2.33 J	84,500	----	----	----	----	----	----	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	1,580,000	0.446 J	229,000	----	----	----	----	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	20.6	2.3	----	----	----	3,010,000	<7.50 UJ	356,000	----	----	----	----	----	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	21.4	4.0	<4.07	<4.26	35,200	2,270,000	<1.50	407,000 J-	<6.1	590	26 J	54	<5.8	<5.6	15 J
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	26.1	18.8	----	----	----	2,040,000	<0.150	354,000	----	----	----	----	----	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	27.6	10.9	----	----	----	3,020,000	<0.150	374,000 J-	----	----	----	----	----	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	22.3	53.8	<4.07	<4.26	25,600	2,180,000	<0.150	189,000	<3.0	170	<2.9	290	<2.9	<2.8	<2.7
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	30.0	43.8	----	----	----	2,250,000 J	<0.150	126,000 J-	----	----	----	----	----	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	27.7	30.6	----	----	----	4,790,000	372	6,100	----	----	----	----	----	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	34	5	<4.07	<4.26	31,400	2,660,000	1.65	14,300	<1.2	3.5 J	<1.2	<1.1	<1.2 UJ	<1.1 UJ	10.6
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	24.6	159.1	----	----	----	2,280,000 J-	0.720 J-	123,000	----	----	----	----	----	----	----
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	25.2	85.7	<4.07	<4.26	<2.91	30,300,000	56,200	1,640 J	<12	27 J	<12	490	<12	<11	<11
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	28.9	50.9	----	----	----	6,280,000 J+	45,000	58,400	----	----	----	----	----	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	23.5	22.7	----	----	----	6,140,000	19,800	55,200	----	----	----	----	----	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	21.5	138.4	----	----	----	9,360,000 J	1,860	7,010	----	----	----	----	----	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	16.8	55.9	<4.07	<4.26	7,020	7,430,000	16,100	2,790 J+	<3.0 R	18 J	<2.9 R	<2.7 R	<2.9 R	<2.8 R	6.6 J
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	21.4	76.1	----	----	----	5,460,000	15,100	2,110 J+	----	----	----	----	----	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	20.6	58.9	----	----	----	6,380,000	15,600 J-	2,000 J+	----	----	----	----	----	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	18.5	202.8	<4.07	<4.26	5,480	7,680,000	14,200	1,730 J+	<1.2 UJ	5.2 J	<1.2 UJ	130 J	<1.2 UJ	<1.1 UJ	<1.1 UJ
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	26.3	119.0	----	----	----	5,400,000	9,530	1,240	----	----	----	----	----	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	29.8	63.6	----	----	----	4,570,000	8,150	1,670	----	----	----	----	----	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	26.8	1.8	<4.07	<4.26	3,790	4,240,000	8,680	2,210 J+	<1.2	5.7 J	<1.2	120	<1.2	<1.1	5.2 J
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	32.5	67.5	----	----	----	4,940,000	8,450	3,020	----	----	----	----	----	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	27.8	225.5	----	----	----	5,220,000	10,400	2,050 J+	----	----	----	----	----	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	29.6	22.8	<4.07	<4.26	9,280	7,100,000	12,500	1,750 J+	<3.0	7.4 J	<2.9	<2.7	<2.9 UJ	<2.8 UJ	4.9 J
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	24.8	179.3	----	----	----	6,860,000	13,600	2,510 J+	----	----	----	----	----	----	----
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	23.7	2478.1	<4.07	<4.26	<2.91	8,680,000	21,900	1,080 J+	<3.0	17 J	<2.9	240	<2.9	<2.8	21 J
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	27.2	70.5	----	----	----	2,540,000 J+	17,000	2,450 J+	----	----	----	----	----	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	27.9	142.6	----	----	----	2,660,000	8,000	1,900 J	----	----	----	----	----	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	20.1	119.3	----	----	----	3,340,000 J	5,840 J-	2,000 J+	----	----	----	----	----	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	19.9	94.5	<4.07 UJ	<4.26 UJ	1,300	2,710,000	<0.150 UJ	37,400	<1.2	68	<1.2	130 J+	<1.2	<1.1	7.3 J
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	20.1	118.8	----	----	----	1,960,000	4.48	67,800	----	----	----	----	----	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	20.7	552.4	----	----	----	3,420,000	0.250 J	43,400	----	----	----	----	----	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	19.2	114.6	<4.07	<4.26	20,300	1,550,000	1.05 J	43,900	<0.61	56	<0.58	58 J+	<0.58	<0.56	<0.53
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	23.5	23.1	----	----	----	1,690,000	0.606	25,800 J-	----	----	----	----	----	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	29.7	55.5	----	----	----	1,970,000	0.178 J	19,800	----	----	----	----	----	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	27.5	10.7	<4.07	<4.26	23,600	1,680,000	0.559	21,100	<0.61	4.2 J	<0.58	58	<0.58	<0.56	12
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	35.1	121.0	----	----	----	1,580,000 J	99.0	21,300	----	----	----	----	----	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	35.2	174.7	----	----	----	5,810,000	9,230	2,880 J+	----	----	----	----	----	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	34.6	44	<4.07	<4.26	9,520	7,040,000	13,100	2,560 J+	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	<26.5

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	25.5	136.9	----	----	----	8,440,000 J-	15,300	2,780	----	----	----	----	----	----	----
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	26.5	50.4	<4.07	<4.26	<2.91	2,550,000	239	1,220 J+	----	----	----	----	----	----	----
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	20.7	58.1	<4.07 UJ	<4.26 UJ	<2.91 UJ	4,530,000	5,860	570 J	----	----	----	----	----	----	----
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	21.8	115.4	<4.07	<4.26	15.0 J+	2,650,000	4,450	1,010 J+	----	----	----	----	----	----	----
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	30.3	59.1	<4.07	<4.26	619	2,750,000	3,980	1,710 J+	----	----	----	----	----	----	----
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	28.2	13.8	<4.07	<4.26	15,500	2,320,000	2,670	6,160	----	----	----	----	----	----	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	22.8	57.4	<4.07	<4.26	<2.91	3,220,000	2,270	1,090 J+	----	----	----	----	----	----	----
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	16.8	23.4	<4.07 UJ	<4.26 UJ	29.8	5,260,000	4,360 J-	786 J	----	----	----	----	----	----	----
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	21.5	-48.0	<4.07	<4.26	123 J+	3,130,000	4,560	1,030 J+	----	----	----	----	----	----	----
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	26.9	11.4	<4.07	<4.26	5,640	3,260,000	782	3,660	----	----	----	----	----	----	----
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	30.5	18.8	<4.07	<4.26	12,800	2,590,000	2,240	4,970	----	----	----	----	----	----	----
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	20.7	76.6	<4.07	<4.26	<2.91	3,490,000	5,240	1,240 J	----	----	----	----	----	----	----
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	22.3	435.5	<4.07	<4.26	<2.91	2,880,000	3,380 J-	922 J	----	----	----	----	----	----	----
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	20.8	20.3	<4.07	<4.26	324	3,030,000	3,630	362 J	----	----	----	----	----	----	----
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	26.4	119.9	<4.07	<4.26	8,050	3,680,000	4,490	818 J	----	----	----	----	----	----	----
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	26	146.2	<4.07	<4.26	47,400	2,460,000	3,270	447 J	----	----	----	----	----	----	----
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	18.6	82.3	<4.07	<4.26	<2.91	677,000	67.5	532 J	----	----	----	----	----	----	----
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	21.5	51.1	<4.07	<4.26	<2.91	553,000	14.5	505 J	----	----	----	----	----	----	----
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	22.2	99.0	<4.07	<4.26	<2.91	548,000	12.5 J-	224 J	----	----	----	----	----	----	----
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	28.2	779.0	<4.07	<4.26	<2.91	589,000	2.29 J	337 J	----	----	----	----	----	----	----
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	28.1	479.8	<4.07	<4.26	<2.91	551,000	0.817	109 J	----	----	----	----	----	----	----
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	22.6	20895.7 E	<4.07	<4.26	<2.91	4,080,000	5,010	1,440 J	----	----	----	----	----	----	----
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	23.0	137.7	<4.07	<4.26	3,490	3,130,000	4,730 J-	60,700	----	----	----	----	----	----	----
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	21.6	-223.4	<4.07	<4.26	10,900	3,730,000	2.22	565,000	----	----	----	----	----	----	----
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	24.3	30.1	<40.7	<42.6	21,400	2,280,000	<0.750	306,000 J-	----	----	----	----	----	----	----
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	27.2	308.6	<4.07	<4.26	14,600	3,370,000	6.35	11,900	----	----	----	----	----	----	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	21.5	71.7	<4.07	<4.26	<2.91	1,450,000	262	848 J	----	----	----	----	----	----	----
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	22.0	32.2	<4.07	<4.26	20,200	1,850,000	0.995	499,000	----	----	----	----	----	----	----
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	20.4	38.9	<4.07	<4.26	24,500	1,250,000	<0.150	116,000 J-	----	----	----	----	----	----	----
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	32.8	2.4	<4.07	<4.26	34,800	1,600,000	<15.0	95,700 J-	----	----	----	----	----	----	----
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	25.6	8.2	<4.07	<4.26	21,000	1,450,000	<0.150	41,400 J-	----	----	----	----	----	----	----
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	23.7	84.8 E	<4.07	<4.26	<2.91	30,500,000	61,300	1,340 J	----	----	----	----	----	----	----
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	21.8	84.8	<4.07	<4.26	374	13,400,000	21,900	3,980 J+	----	----	----	----	----	----	----
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	17.8	12.1	<4.07	<4.26	6,230	10,300,000	13,800	25,100	----	----	----	----	----	----	----
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	25.2	34.1	<4.07	<4.26	11,800	28,600,000	38,700	10,500 J+	----	----	----	----	----	----	----
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	24.7	15.7	<4.07	<4.26	7,240	7,180,000 J-	17,600	4,300	----	----	----	----	----	----	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	18.3	35.4	<4.07	<4.26	<2.91	1,940,000	682	827 J	----	----	----	----	----	----	----
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	21.7	18.9	<4.07	<4.26	<2.91	1,220,000	215 J-	852 J	----	----	----	----	----	----	----
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	18.6	11.4	<4.07	<4.26	<2.91	1,160,000	149 J-	1,350 J+	----	----	----	----	----	----	----
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	27.3	12.0	<4.07	<4.26	55.6	1,130,000	183	825 J	----	----	----	----	----	----	----
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	28.2	14	<4.07	<4.26	<2.91	972,000 J	153	151 J	----	----	----	----	----	----	----
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	23.5	-449448.0 E	<4.07	<4.26	<2.91	5,220,000	9,350	950 J	----	----	----	----	----	----	----
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	22.2	5.3	<4.07	<4.26	2,930	2,120,000	0.467 J	515,000	----	----	----	----	----	----	----
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	3,090	2,000,000	0.735	515,000	----	----	----	----	----	----	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	20.6	5.3	<4.07	<4.26	28,900	2,930,000	<0.750 UJ	747,000 J-	----	----	----	----	----	----	----
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	26,500	2,980,000	<0.750	731,000 J-	----	----	----	----	----	----	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	25.4	12.6	<4.07	<4.26	34,000	2,200,000 J	<1.50	363,000 J-	----	----	----	----	----	----	----
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	32,700	2,130,000 J	<1.50	372,000 J-	----	----	----	----	----	----	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	26.2	38.9	<4.07	<4.26	22,900	15,900,000	14,100	6,750	----	----	----	----	----	----	----
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	<4.07	<4.26	22,500	13,200,000	14,100	6,830	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	22.3	-8.5	<4.07	8.07 J	19.8	1,990,000	365 J-	1,070 J+	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	<4.07	<4.26	<2.91	2,000,000	361 J-	931 J	----	----	----	----	----	----	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	22.5	35.4	<4.07 UJ	<4.26 UJ	134	1,630,000	50.6	23,300	----	----	----	----	----	----	----
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	20.5	74.4	<4.07	<4.26	26,300	3,050,000	<0.150 UJ	726,000	----	----	----	----	----	----	----

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	RSK175	RSK175	RSK175	SM2540C	SW7199	SW9060A/SM 5310B	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G	Volatile Fatty Acids by AM20GAX/AM 23G
						Temperature	Turbidity	Ethane	Ethene	Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						C	NTU	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	25.3	87.7	<4.07	<4.26	25,200	3,330,000	<0.150	710,000 J-	----	----	----	----	----	----	----
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	27.8	60.4	<4.07	<4.26	25,400	1,400,000 J	<0.150	41,600	----	----	----	----	----	----	----
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	----	----	----	----	----	588,000	<0.150	3,660 J+	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02	N/A	N/A	----	----	----	----	----	16,100,000 J-	38,400	114,000	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03	N/A	N/A	20.4	169.1	----	----	----	15,400,000	36,900	61,500	----	----	----	----	----	----	----
U4-T3	12/6/2022	N	EM04	N/A	N/A	21.4	30.1	----	----	----	12,600,000	25,100 J-	76,300	----	----	----	----	----	----	----
U4-T3	1/9/2023	N	EM05	N/A	N/A	19.9	0.0	----	----	----	12,200,000	37,400	17,100	----	----	----	----	----	----	----
U4-T3	2/13/2023	N	EM06	N/A	N/A	23.6	3.3	----	----	----	13,200,000	36,600	17,700	----	----	----	----	----	----	----
U4-T3	3/13/2023	N	EM07	N/A	N/A	23.5	1.9	----	----	----	11,700,000	39,800	2,980 J+	----	----	----	----	----	----	----
U4-T3	4/19/2023	N	EM08	N/A	N/A	22.6	3.7	----	----	----	7,080,000	14,900	31,800	----	----	----	----	----	----	----
U4-T3	5/18/2023	N	EM09	N/A	N/A	30.9	5.5	----	----	----	10,800,000	20,400	89,500	----	----	----	----	----	----	----
U4-T3	6/12/2023	N	EM10	N/A	N/A	33.8	1.9	----	----	----	9,060,000	20,700	150,000	----	----	----	----	----	----	----
U4-T3	7/11/2023	N	EM11	N/A	N/A	35.0	111.4	----	----	----	9,260,000 J-	9,780	388,000	----	----	----	----	----	----	----
U4-T3	8/10/2023	N	EM12	N/A	N/A	36.3	38.6	----	----	----	3,850,000	4.61	278,000	----	----	----	----	----	----	----
U4-T3	9/11/2023	N	EM13	N/A	N/A	29.2	95.4	----	----	----	6,800,000	57.0	1,400,000	----	----	----	----	----	----	----
U4-T3	10/16/2023	N	EM14	N/A	N/A	36.5	45.8	----	----	----	3,840,000 J-	2.08 J-	324,000	----	----	----	----	----	----	----

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	0.204 J	0.484 J	<0.142	<0.230	0.428 J	<0.481	<0.322	<0.276
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.398 J	0.297 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.206 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.158 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<5.6 UJ	5.6 J	<6.0 UJ	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.195 J	0.194 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.242 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.228 J	0.251 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<27.8 UJ	<26.5	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.276 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322 UJ	<0.276
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----	<0.147 UJ	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	0.126 J	0.465 J	<0.142	<0.230	0.293 J	<0.481	<0.322	<0.276
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.481 J	0.479 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.264 J	0.273 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----	<0.147 UJ	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.331 J	0.346 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.275 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.270 J	0.373 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.223 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.271 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.210 J	0.258 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.204 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	----	----	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.224 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.235 J	0.288 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.682 J	0.594 J	<0.230	0.393 J	<0.481	<0.322	<0.276
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	0.122 J	0.424 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.225 J	0.316 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	----	----	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.281 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.315 J	0.338 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.277 J	0.388 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.759 J	0.631 J	<0.230	0.429 J	<0.481	<0.322	<0.276
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.501 J	0.528 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	----	----	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.285 J	0.335 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.250 J	0.284 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.401 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.398 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22 UJ	<2.76
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.135 J	0.735 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.517 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.165 J	0.832 J	0.619 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.118 J	0.763 J	0.566 J	<0.230 UJ	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.124 J	0.902 J	0.663 J	<0.230	0.363 J	<0.481	<0.322	<0.276
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<11 UJ	<11 UJ	<12 UJ	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<11	12 J	<12	<0.147	<0.149	<0.133	<0.158	<0.100	0.382 J	0.188 J	<0.230	0.266 J	<0.481	<0.322	<0.276
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.108 J	0.768 J	<0.142	<0.230	<0.237	<0.481	0.391 J	<0.276
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	<36.8	<37.3	<33.3	<39.5	<25.0	<47.0	<35.5	<57.5	<59.3	<120	<80.5	<69.0
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<11.1 UJ	<10.6	<12.0	<0.147	<0.149	<0.133	<0.158	0.113 J	0.594 J	0.313 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	<0.147	<0.149	<0.133	<0.158	0.161 J	0.745 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.431 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30 UJ	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30 UJ	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<11 UJ	18 J	<12 UJ	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<11 UJ	17 J	<12 UJ	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	1.3 J	30	1.8 J	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<1.1	30	<1.2	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<2.8 UJ	21.1 J	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<55.5 UJ	<53.0 UJ	<59.8	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	0.377 J	0.286 J	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.396 J	<0.142	<0.230	0.287 J	<0.481	<0.322	<0.276
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61 UJ	<1.38
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.165 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.560 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1 UJ	<13.8
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.158 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	0.181 J	0.659 J	0.565 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	0.118 J	0.278 J	0.297 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	0.116 J	0.436 J	0.544 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	0.106 J	0.330 J	0.362 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<5.6	5.5 J	<6.0	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.187 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.197 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<2.8	21 J	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.8 UJ	18.9 J	3.2 J	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.359 J	0.311 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	0.154 J	0.448 J	0.557 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	0.135 J	0.345 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.289 J	0.462 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<2.8	2.9 J	<3.0	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	9.2 J	120	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<27.8 UJ	<26.5	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	0.134 J	0.315 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.56	0.54 J	<0.60	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----	<0.147 UJ	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<11	180	<12	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<27.8 UJ	47.2 J	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.56	0.59 J	<0.60	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<2.8	23 J	<3.0	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<27.8 UJ	157 J	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.391 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.303 J	0.210 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.671 J	0.485 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	1.02	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.223 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.232 J	0.238 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.152 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.259 J	0.285 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.455 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	----	----	----	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.373 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<5.6	<5.3	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	0.543 J	0.380 J	<0.230	0.334 J	<0.481 UJ	<0.322	<0.276
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.8	3.4 J	<3.0	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<11	<11	<12	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<11	16 J	<12	<0.147	<0.149	<0.133	<0.158	<0.100	0.456 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.370 J	0.445 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<27.8 UJ	<26.5	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	0.407 J	0.234 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----	<29.4	<29.8	<26.6	<31.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<1.1	<1.1	<1.2	<0.147	<0.149	<0.133	<0.158	<0.100	0.385 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41 UJ	<1.61	<1.38
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<5.6 UJ	21 J	<6.0 UJ	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<5.6 UJ	26 J	<6.0 UJ	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<2.8	92	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<2.8	94	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.56	46	1.9 J	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.56	48	1.4 J	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.155 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<27.8 UJ	<26.5	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<27.8 UJ	<26.5	<29.9	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.400 J	0.303 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.394 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<5.6	<5.3	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	0.417 J	0.374 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.326 J	0.350 J	<0.230	0.325 J	<0.481	<0.322	<0.276
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<5.6 R	1,500 J-	<6.0 R	<0.147	<0.149	<0.133	<0.158	<0.100	0.351 J	0.507 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<5.6	10 J	<6.0	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	----	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<11	11 J	<12	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	----	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<2.8 UJ	<2.6	<3.0	<7.35	<7.45	<6.65	<7.90	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<5.6	<5.3	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	0.465 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<5.6	<5.3	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	0.461 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<1.1 R	6.1 J	<1.2 R	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<5.6	150	<6.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<2.8	82	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<1.1 UJ	<1.1	<1.2	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<11	<11	<12	<0.147	<0.149	<0.133	<0.158	<0.100	0.565 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	----	<1.47	<1.49	<1.33	<1.58	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<2.8 R	300 J-	<3.0 R	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<1.1 UJ	<1.1 UJ	<1.2 UJ	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<1.1	1.8 J	<1.2	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.8 UJ	<2.6	<3.0	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<2.8	<2.6	<3.0	<0.147	<0.149	<0.133	<0.158	<0.100	0.403 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<1.1	1.5 J	<1.2	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.56	4.2 J	<0.60	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.56	0.86 J	<0.60	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<27.8 UJ	<26.5	<29.9	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.409 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	----	----	----	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	----	----	----	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.367 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----	<2.94	<2.98	<2.66	<3.16	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.237 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.189 J	0.196 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	----	----	----	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Fatty Acids by AM20GAX/AM23G	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Pentanoic Acid	Propionic Acid	Pyruvic Acid	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	----	----	----	<0.735	<0.745	<0.665	<0.790	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-T3	10/13/2022	N	EM02	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.284 J	0.271 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	11/3/2022	N	EM03	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.293 J	0.376 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	12/6/2022	N	EM04	N/A	N/A	----	----	----	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-T3	1/9/2023	N	EM05	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	0.236 J	0.273 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	2/13/2023	N	EM06	N/A	N/A	----	----	----	<14.7	<14.9	<13.3	<15.8	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-T3	3/13/2023	N	EM07	N/A	N/A	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-T3	4/19/2023	N	EM08	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	0.143 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	5/18/2023	N	EM09	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	6/12/2023	N	EM10	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-T3	7/11/2023	N	EM11	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	8/10/2023	N	EM12	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	9/11/2023	N	EM13	N/A	N/A	----	----	----	<0.147	<0.149	<0.133	<0.158	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	10/16/2023	N	EM14	N/A	N/A	----	----	----	<3.68	<3.73	<3.33	<3.95	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.126	<0.107	0.346 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.46 J	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.126	<0.107	0.142 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.126	<0.107	0.171 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.126	<0.107	0.126 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	35.6	<0.106	2.52 J	<0.114	<0.478	21.9 J
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.97 J	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.41 J	<0.106	<0.787	<0.114	<0.478	19.1 J
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	7.60 J	<0.106	<0.787	<0.114	<0.478	<11.3
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	4.31 J	<0.106	<0.787	<0.114	<0.478	<11.3
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.29 J	<0.106	<0.787	<0.114	<0.478	11.7 J
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.45 J	<0.106	0.848 J	<0.114	<0.478	11.7 J
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.126	<0.107	0.0909 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.34 J	<0.106	<0.787	<0.114	<0.478	44.5 J
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	19.7	<0.106	<0.787 UJ	<0.114	<0.478	84.3 J+
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	59.3 J
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	7.24 J	<0.106	<0.787	<0.114	0.711 J	27.4 J
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	24.9 J
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104 R	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.27 J	<0.106	<0.787	<0.114	<0.478	17.6 J
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	12.3	<0.106	<0.787	<0.114	<0.478	52.8
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	31.6	<0.106	<0.787 UJ	<0.114	<0.478	31.2 J
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	36.2 J
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	47.5	<0.106	<0.787	<0.114	<0.478	41.5 J
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	41.3	<0.106	<0.787	<0.114	<0.478	57.0
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	47.8 J	<1.06	<7.87	<1.14	<4.78	<113
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	50.0	<0.106	<0.787	<0.114	<0.478	164
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	46.8	<0.106	<0.787 UJ	<0.114	<0.478	233
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	18.4	<0.106	<0.787	<0.114	<0.478	195
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	6.05 J	<0.106	<0.787	<0.114	<0.478	29.5 J
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.126	<0.107	0.131 J	0.183 J	<0.104	<0.110	<0.110	<0.120	<0.161	32.7	<0.106	<0.787	<0.114	<0.478	201
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	4.61 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	110 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	98.1 J
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	8.89 J	<0.106	<0.787	<0.114	<0.478	33.8 J
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	10.5	<0.106	<0.787	<0.114	<0.478	39.8 J
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ	<1.61 UJ	36.1 J	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	16.0 J+	<0.106	<0.787	<0.114	<0.478	32.8 J
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	26.1 J	<2.12	<15.7	<2.28	<9.56	<226
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	7.09 J	<0.106	<0.787 UJ	<0.114	<0.478	21.0 J
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.1	<0.106	<0.787	<0.114	<0.478	52.8
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	11.1	<0.106	<0.787	<0.114	<0.478	87.0
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.126	<0.107	0.205 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.126	<0.107	0.138 J	0.191 J	<0.104	<0.110	<0.110	<0.120	<0.161	1.25 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.17 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ	<4.03 UJ	<29.8 UJ	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.126	<0.107	0.137 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.126	<0.107	0.105 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	6.21 J	<0.106	<0.787	<0.114	<0.478	32.0 J
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.126	<0.107	0.240 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.32 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ	<4.03 UJ	<29.8 UJ	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.126	<0.107	0.131 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.81 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.126	<0.107	0.118 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.24 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.126	<0.107	0.132 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.126	<0.107	0.120 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.67 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.37 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.26 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.15 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.81 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.36 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	0.322 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.126	<0.107	0.360 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	0.872 J	<1,130
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.630	<0.535	0.515 J	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.126	<0.107	0.199 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<31.5	<26.8	<20.5	<37.3	<26.0	<27.5	<27.5	<30.0	<40.3	<298	<26.5	<197	<28.5	<120	<2,820
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	0.155 J	<0.104	<0.110	<0.110	<0.120	<0.161	5.69 J	<0.106	0.860 J	<0.114	<0.478	<11.3
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.126	<0.107	0.348 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	0.102 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	11.9 J
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19 UJ	<0.106	<0.787	<0.114	<0.478	32.3 J
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	34.2 J	<0.106	<0.787	<0.114	<0.478	61.2
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	176 J
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	190 J
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	26.0	<0.106	<0.787	<0.114	<0.478	39.3 J

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	28.7	<0.106	<0.787	<0.114	<0.478	46.3 J
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	21.7 J+	<0.106	<0.787	<0.114	<0.478	46.0 J
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	19.6 J+	<0.106	<0.787	<0.114	<0.478	47.8 J
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	6.47 J	<0.106	<0.787 UJ	<0.114	<0.478	49.2 J
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	7.53 J	<0.106	<0.787 UJ	<0.114	<0.478	48.9 J
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	24.0	<0.106	<0.787	<0.114	<0.478	32.7 J
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	26.0	<0.106	<0.787	<0.114	<0.478	35.3 J
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	60.9 J	<0.106	1.26 J	<0.114	0.779 J	437 J
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	36.0 J	<0.106	<0.787	<0.114	<0.478	274 J
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	4.80 J	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	39.4 J
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.126	<0.107	0.203 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	76.5 J
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.43 J	<0.106	<0.787	<0.114	<0.478	13.4 J
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.03 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	17.3	<0.106	1.71 J	<0.114	<0.478	<11.3
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	9.75 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.126	<0.107	0.900 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.95 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.6	<0.106	<0.787	<0.114	<0.478	86.7 J+
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	21.3 J
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.71 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	23.3 J	<0.530	<3.94	<0.570	<2.39	87.0 J
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.126	<0.107	0.186 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	16.9 J
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	35.3	<0.106	<0.787	<0.114	<0.478	80.9
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	103
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.80 J	<0.106	<0.787	<0.114	<0.478	50.4

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	30.9 J	<2.65	<19.7	<2.85	<12.0	311 J
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.126	<0.107	0.531 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.3	<0.106	<0.787	<0.114	<0.478	23.4 J
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	89.2	<0.106	<0.787	<0.114	<0.478	44.0 J
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	78.9	<0.106	<0.787	<0.114	<0.478	76.6
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	212	<0.106	<0.787	<0.114	<0.478	51.1
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	92.4 J	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	42.3	<0.106	4.26 J	<0.114	<0.478	103
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.126	<0.107	0.785 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	4.05 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	55.5	<0.106	<0.787 UJ	<0.114	<0.478	200
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.126	<0.107	0.117 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.20 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	18.5	<0.106	<0.787	<0.114	<0.478	23.4 J
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	142	<0.106	<0.787	<0.114	<0.478	314
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	85.0 J	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	176 J
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	16.0	<0.106	<0.787	<0.114	<0.478	77.4
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	203
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	125	<0.106	<0.787 UJ	<0.114	<0.478	970
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	161 J	<10.6	<78.7	<11.4	<47.8	1,170 J
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	17.3	<0.106	<0.787	<0.114	<0.478	62.0
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.24 J	<0.106	<0.787	<0.114	<0.478	12.2 J
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	14.9 J	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.7	<0.106	<0.787	<0.114	<0.478	15.2 J
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	201
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	117	<0.106	3.53 J	<0.114	<0.478	780

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	150 J	<5.30	<39.4	<5.70	<23.9	894 J
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	11.7 J+	<0.106	<0.787	<0.114	<0.478	39.5 J
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	18.7 J	<0.106	3.03 J	<0.114	<0.478	<11.3
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	5.79 J	<0.106	1.23 J	<0.114	<0.478	<11.3
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.126	<0.107	0.345 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.31 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.44 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	17.6	<0.106	<0.787	<0.114	<0.478	23.2 J
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	16.5	<0.106	<0.787	<0.114	<0.478	21.4 J
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	13.7	<0.106	<0.787 UJ	<0.114	<0.478	16.4 J
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.3	<0.106	<0.787 UJ	<0.114	<0.478	16.6 J
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.126	<0.107	0.239 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ	<1.61 UJ	<11.9 UJ	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	38.2 J	<1.06	<7.87	<1.14	<4.78	287 J
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	39.7	<0.106	<0.787	<0.114	<0.478	126 J+
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	38.2	<0.106	<0.787	<0.114	<0.478	201
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478 UJ	<11.3
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	6.38 J	<0.106	<0.787 UJ	<0.114	<0.478	12.9 J
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ	<1.61 UJ	<11.9 UJ	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	17.2 J	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.02 J	<0.106	<0.787	<0.114	<0.478	22.0 J
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	4.54 J	<0.106	<0.787	<0.114	<0.478	32.8 J
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	151	<0.106	<0.787	<0.114	<0.478	26.0 J
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	164	<0.106	<0.787 UJ	<0.114	<0.478	85.5
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	27.8	<0.106	<0.787	<0.114	<0.478	45.7 J
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	74.4 J+
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.126	<0.107	0.115 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	61.6	<0.106	<0.787	<0.114	<0.478	90.1 J+
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	11.4	<0.106	<0.787 UJ	<0.114	<0.478	29.0 J
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ	<4.03 UJ	88.4 J	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.126	<0.107	0.0940 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.53 J	<0.106	<0.787	<0.114	<0.478	16.9 J
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.126	<0.107	0.106 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.58 J	<0.106	<0.787	<0.114	<0.478	11.4 J
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	10.4	<0.106	<0.787 UJ	<0.114	<0.478	158
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104 UJ	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.1	<0.106	<0.787	<0.114	<0.478	184
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	176
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	16.0 J	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	24.1	<0.106	<0.787	<0.114	<0.478	18.3 J
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	62.2	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	70.6	<0.106	<0.787	<0.114	<0.478	44.2 J
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	57.4 J+	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	57.7 J+
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	57.2 J+	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	57.8 J+
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	44.0	<0.106	<0.787	<0.114	<0.478	54.7 J+
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	43.9	<0.106	<0.787	<0.114	<0.478	52.3 J+
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.8 J+	<0.106	<0.787	<0.114	<0.478	22.1 J
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	19.3 J+	<0.106	<0.787	<0.114	<0.478	20.6 J
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	44.6	<0.106	<0.787	<0.114	<0.478	44.6 J
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	42.2	<0.106	<0.787	<0.114	<0.478	43.6 J
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	34.4	<0.106	<0.787	<0.114	<0.478	45.3 J
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	33.9	<0.106	<0.787	<0.114	<0.478	42.6 J
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	31.4 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	43.6 J
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	30.9 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	45.1 J
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	22.2	<0.106	<0.787	<0.114	<0.478	30.9 J
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	21.8	<0.106	<0.787	<0.114	<0.478	29.7 J
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	13.7	<0.106	<0.787	<0.114	<0.478	24.5 J
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.9	<0.106	<0.787	<0.114	<0.478	24.2 J
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	15.8 J
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.23 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.126	<0.107	0.157 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.126	<0.107	0.196 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	4.52 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	154	<0.530	<3.94	<0.570	<2.39	718
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	0.144 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.87 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	0.146 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	13.7 J
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.126	<0.107	0.0834 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	10.6 J+	<0.106	<0.787	<0.114	<0.478	16.9 J
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	10.3 J+	<0.106	<0.787	<0.114	<0.478	16.1 J
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	9.72 J	<0.106	<0.787	<0.114	<0.478	30.3 J
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	24.7 J+	<0.106	<0.787	<0.114	<0.478	23.4 J
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.6	<0.106	<0.787	<0.114	<0.478	19.6 J
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	22.4 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	32.0 J
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	26.4	<0.106	<0.787	<0.114	<0.478	43.1 J
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	30.4	<0.106	<0.787	<0.114	<0.478	63.2
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	57.2	<0.106	5.56 J	<0.114	<0.478	63.6
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.25 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.56 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.5	<0.106	2.02 J	<0.114	<0.478	26.8 J
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.126	<0.107	0.200 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.7	<0.106	<0.787	<0.114	<0.478	66.9
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.69 J	<0.106	<0.787	<0.114	<0.478	15.0 J
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.126	<0.107	0.133 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.81 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ	<0.805 UJ	19.1 J	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.5 J+	<0.106	<0.787	<0.114	<0.478	16.9 J
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	17.5 J	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	25.9	<0.106	<0.787	<0.114	<0.478	11.3 J
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	25.2	<0.106	<0.787	<0.114	<0.478	16.5 J
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	18.3 J
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.126	<0.107	0.134 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	14.4 J
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	20.3 J+	<0.106	<0.787	<0.114	<0.478	37.2 J
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	51.5	<0.106	<0.787	<0.114	<0.478	103 J+
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.14 J	<0.106	<0.787	<0.114	<0.478	13.1 J
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	14.5	<0.106	<0.787	<0.114	<0.478	22.3 J
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	19.5	<0.106	<0.787	<0.114	<0.478	32.1 J
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	6.88 J	<0.106	<0.787	<0.114	<0.478	15.5 J
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	31.3	<0.106	<0.787	<0.114	<0.478	644
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.54 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	36.1 J+	<0.106	<0.787	<0.114	<0.478	20.0 J
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	34.3 J+	<0.106	<0.787	<0.114	<0.478	18.7 J
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	23.8	<0.106	<0.787	<0.114	<0.478	37.6 J
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	22.0	<0.106	<0.787	<0.114	<0.478	34.6 J
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	39.0	<0.106	<0.787 UJ	<0.114	<0.478	46.3 J
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	37.3	<0.106	<0.787 UJ	<0.114	<0.478	44.5 J
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	1.22 J	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	42.6	<0.106	<0.787	<0.114	<0.478	38.0 J

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	47.0	<0.106	<0.787	<0.114	<0.478	54.0
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	16.4	<0.106	<0.787	<0.114	<0.478	32.1 J
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5
U4-T3	10/13/2022	N	EM02	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	22.8 J
U4-T3	11/3/2022	N	EM03	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	3.43 J	<0.106	<0.787	<0.114	<0.478	12.3 J
U4-T3	12/6/2022	N	EM04	N/A	N/A	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ
U4-T3	1/9/2023	N	EM05	N/A	N/A	<0.126	<0.107	0.0844 J	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.47 J	<0.106	<0.787	<0.114	<0.478	11.4 J
U4-T3	2/13/2023	N	EM06	N/A	N/A	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130
U4-T3	3/13/2023	N	EM07	N/A	N/A	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282
U4-T3	4/19/2023	N	EM08	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	2.01 J	<0.106	<0.787	<0.114	<0.478	12.8 J
U4-T3	5/18/2023	N	EM09	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	26.1 J+	<0.106	<0.787	<0.114	<0.478	121
U4-T3	6/12/2023	N	EM10	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	25.8	<0.106	<0.787 UJ	<0.114	<0.478	96.7 J+
U4-T3	7/11/2023	N	EM11	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	90.2
U4-T3	8/10/2023	N	EM12	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	17.1	<0.106	<0.787	<0.114	0.823 J	39.1 J
U4-T3	9/11/2023	N	EM13	N/A	N/A	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120	<0.161	22.7	<0.106	<0.787	<0.114	<0.478	69.8
U4-T3	10/16/2023	N	EM14	N/A	N/A	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	13.1	8.80	<0.605	<0.128	<0.116	<0.192	8,010	<0.960	<0.126	<0.111	6.51	<0.122
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	6.92	3.40	<0.605	<0.128	<0.116	<0.192	3,950	<0.960	<0.126	<0.111	3.91	<0.122
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<0.941	<1.18	<1.28	5.61 J	<1.29	<6.05	<1.28	<1.16	<1.92	2,420	<9.60	<1.26	<1.11	2.27 J	<1.22
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	4.81	1.77	<0.605	1.55	<0.116	<0.192	2,240	<0.960	<0.126	<0.111	2.75	<0.122
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	4.88	1.80	<0.605	<0.128	<0.116	<0.192	2,680	<0.960	<0.126	<0.111	2.88	<0.122
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	4.13	1.02	<0.605	1.37	<0.116	<0.192	1,480	<0.960	<0.126	<0.111	2.53	<0.122
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	1,630	<48.0	<6.30	<5.55	<7.00	<6.10
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	4.56	1.33	<0.605	1.65	<0.116	<0.192	1,950 J+	<0.960	<0.126	<0.111	1.95	<0.122
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	5.11	2.19	<0.605	1.58	<0.116	<0.192	2,200	<0.960	<0.126	<0.111	2.31	<0.122
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	2,240	<48.0	<6.30	<5.55	<7.00	<6.10
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	4.24	2.14	<0.605	1.90	<0.116	<0.192	2,600	<0.960	<0.126	<0.111	2.44	<0.122
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	2.50	0.978 J	<0.605	<0.128	<0.116	<0.192	2,010	<0.960	<0.126	<0.111	1.11	<0.122
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	3.13	1.23	<0.605	<0.128	<0.116	<0.192	2,340	<0.960	<0.126	<0.111	1.36	<0.122
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.0941	<0.118	<0.128	3.31	1.17	<0.605	<0.128	<0.116	<0.192	2,400	<0.960	<0.126	<0.111	1.30	<0.122
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	0.132 J	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	13.5	<0.960	<0.126	<0.111	<0.140	<0.122
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.0941	<0.118	<0.128	<0.136	0.212 J	<0.605	<0.128	<0.116	<0.192	14.5 J+	<0.960	<0.126	<0.111	<0.140	<0.122
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	19.9	<0.960	<0.126	<0.111	<0.140	<0.122
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	22.2	<0.960	<0.126	<0.111	<0.140	<0.122
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.192 J	<0.960	<0.126	<0.111	<0.140	<0.122
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	17.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.471	<0.590	<0.640	5.46	9.81 J-	<3.03	<0.640	<0.580	<0.960	6,650	<4.80	<0.630	<0.555	4.26 J	<0.610
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.0941	<0.118	<0.128	3.04	0.458 J	<0.605	<0.128	<0.116	<0.192	5.08	<0.960	<0.126	<0.111	2.59	<0.122
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.521 J	0.388 J	<0.605	<0.128	<0.116	<0.192	186 J	<0.960	<0.126	<0.111	0.328 J	<0.122
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.509 J	<0.129	<0.605	<0.128	<0.116	<0.192	280 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	2.27	0.446 J	<0.605	0.646 J	<0.116	<0.192	1,300	<0.960	<0.126	<0.111	0.871 J	<0.122
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.887 J	<0.129	<0.605	0.439 J	<0.116	<0.192	477 J+	<0.960	<0.126	<0.111	0.207 J	<0.122
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.980 J	0.189 J	<0.605	<0.128	<0.116	<0.192	553	<0.960	<0.126	<0.111	0.280 J	<0.122
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	1.63	0.383 J	<0.605	0.814 J	<0.116	<0.192	1,530	<0.960	<0.126	<0.111	0.341 J	<0.122
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.471	<0.590	<0.640	0.904 J	<0.645	<3.03	<0.640	<0.580	<0.960	381	<4.80	<0.630	<0.555	<0.700	<0.610
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.955 J	<0.129	<0.605	<0.128	<0.116	<0.192	153	<0.960	<0.126	<0.111	0.907 J	<0.122
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	101	<4.80	<0.630	<0.555	<0.700	<0.610
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.0941	<0.118	<0.128	0.388 J	<0.129	<0.605	<0.128	<0.116	<0.192	152	<0.960	<0.126	<0.111	0.307 J	0.246 J
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.0941	<0.118	<0.128	3.33 J+	1.82	<0.605	<0.128	<0.116	<0.192	1,660	<0.960	<0.126	<0.111	1.39	<0.122
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.0941	<0.118	<0.128	3.21	0.376 J	<0.605	<0.128	<0.116	<0.192	6.95	<0.960	<0.126	<0.111	2.36	<0.122
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.0941	<0.118 UJ	<0.128	1.65	1.65	<0.605	<0.128	<0.116	<0.192	727	<0.960	<0.126	<0.111	0.956 J	<0.122
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	2.11	0.378 J	<0.605	0.176 J	<0.116	<0.192	165	<0.960	<0.126	<0.111	1.15	<0.122
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	1.66	<0.129	<0.605	0.401 J	<0.116	<0.192	503 J+	<0.960	<0.126	<0.111	0.761 J	<0.122
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	1.19	0.412 J	<0.605	0.376 J	<0.116	<0.192	477	<0.960	<0.126	<0.111	0.499 J	<0.122 UJ
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	0.953 J	0.197 J	<0.605	0.180 J	<0.116	<0.192	398	<0.960	<0.126	<0.111	0.297 J	<0.122
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	0.630 J	<0.129	<0.605	0.336 J	<0.116	<0.192	321	<0.960	<0.126	<0.111	0.232 J	<0.122
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	214	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.0941	<0.118	<0.128	0.380 J	0.224 J	<0.605	<0.128	<0.116	<0.192	198	<0.960	<0.126	<0.111	0.179 J	<0.122
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	151	<9.60	<1.26	<1.11	<1.40	<1.22
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	10.9	6.45	<0.605	<0.128	<0.116	<0.192	6,390	<0.960	<0.126	<0.111	4.96	<0.122
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	4,280	<192	<25.2	<22.2	<28.0	<24.4
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	9.37	4.31	<0.605	2.75	<0.116	<0.192	4,350	<0.960	<0.126	<0.111	5.14 J+	<0.122
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<1.88 UJ	<2.36 UJ	<2.56 UJ	7.65 J	3.37 J	<12.1 UJ	6.86 J	<2.32 UJ	<3.84 UJ	3,470	<19.2 UJ	<2.52 UJ	<2.22 UJ	3.45 J	<2.44 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	7.40	2.90	<0.605	2.25	<0.116	<0.192	3,520	<0.960	<0.126	<0.111	3.66	<0.122
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,130	<96.0	<12.6	<11.1	<14.0	<12.2

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,070	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	12,200	<192	<25.2	<22.2	<28.0	<24.4
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.471	<0.590	<0.640	4.48 J	2.05 J	<3.03	1.47 J	<0.580	<0.960	3,360 J+	<4.80	<0.630	<0.555	1.97 J	<0.610
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.0941	<0.118	0.159 J	4.02	1.58	<0.605	<0.128	<0.116	<0.192	2,640	<0.960	<0.126	<0.111	1.55 J-	<0.122 UJ
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	5.66	2.26	<0.605	2.20	<0.116	<0.192	3,700	<0.960	<0.126	<0.111	2.21	<0.122
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	5.08	2.45	<0.605	1.56	<0.116	<0.192	3,470	<0.960	<0.126	<0.111	2.15	<0.122
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	4.55	1.84	<0.605	<0.128	<0.116	<0.192	3,320	<0.960	<0.126	<0.111	1.92	<0.122
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.0941	<0.118	<0.128	4.84	2.48	<0.605	2.88	<0.116	<0.192	3,570	<0.960	<0.126	<0.111	2.11	<0.122
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	3,140	<192	<25.2	<22.2	<28.0	<24.4
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	2.28	0.947 J	<0.605	<0.128	<0.116	<0.192	2,980	<0.960	<0.126	<0.111	0.812 J	<0.122
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	3.30	0.484 J	<0.605	<0.128	<0.116	<0.192	4.96 J	<0.960	<0.126	<0.111	2.85	<0.122
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.591 J	<0.129	<0.605	<0.128	<0.116	<0.192	433	<0.960	<0.126	<0.111	0.141 J	<0.122
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	12.3 J	<5.80	<9.60	5,600	<48.0	<6.30	<5.55	<7.00	<6.10
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	4.11	3.20	<0.605	<0.128	<0.116	<0.192	3,780	<0.960	<0.126	<0.111	2.06	<0.122
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	0.727 J	<0.129	<0.605	<0.128	<0.116	<0.192	5.23 J+	<0.960	<0.126	<0.111	0.449 J	<0.122
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	1.41	1.99	<0.605	<0.128	<0.116	<0.192	516	<0.960	<0.126	<0.111	0.948 J	<0.122
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	3.94 J-	1.44 J-	<0.605 UJ	0.706 J	<0.116 UJ	<0.192 UJ	459 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	1.53 J-	<0.122 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	0.186 J	<0.118	<0.128	0.502 J	0.185 J	<0.605	<0.128	<0.116	<0.192	819	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	0.166 J	<0.118	<0.128	0.679 J	<0.129	<0.605	<0.128	<0.116	<0.192	218	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	0.153 J	<0.118	<0.128	0.605 J	<0.129	<0.605	<0.128	<0.116	<0.192	215	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.0941	<0.118	0.445 J	1.58	0.258 J	<0.605	1.14	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	0.447 J	<0.122
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.0941	<0.118	<0.128	1.16 J+	0.235 J	<0.605	0.654 J	<0.116	<0.192	1,740	<0.960	<0.126	<0.111	0.414 J	<0.122
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<0.941 UJ	<1.18 UJ	<1.28 UJ	<1.36 UJ	<1.29 UJ	<6.05 UJ	2.80 J	<1.16 UJ	<1.92 UJ	1,080	<9.60 UJ	<1.26 UJ	<1.11 UJ	<1.40 UJ	<1.22 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.0941	<0.118	<0.128	1.18	0.386 J	<0.605	0.877 J	<0.116	<0.192	2,050	<0.960	<0.126	<0.111	0.412 J	<0.122
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	1,730	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	923	<19.2	<2.52	<2.22	<2.80	<2.44
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	1,080	<19.2	<2.52	<2.22	<2.80	<2.44
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	1,840	<24.0	<3.15	<2.78	<3.50	<3.05
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.0941	<0.118	<0.128	1.99	0.446 J	<0.605	1.54	<0.116	<0.192	3,080	<0.960	<0.126	<0.111	0.486 J	<0.122
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.0941	<0.118	<0.128	1.55	<0.129	<0.605	1.00 J	<0.116	<0.192	2,820	<0.960	<0.126	<0.111	0.449 J	<0.122
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.471	<0.590	<0.640	1.57 J	<0.645	<3.03	<0.640	<0.580	<0.960	2,630 J	<4.80	<0.630	<0.555	<0.700	<0.610
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.0941	<0.118	<0.128	0.936 J	0.305 J	<0.605	0.612 J	<0.116	<0.192	1,470	<0.960	<0.126	<0.111	0.340 J	<0.122
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	1,120	<48.0	<6.30	<5.55	<7.00	<6.10
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.0941	<0.118	<0.128	3.05	1.20	<0.605	2.62	<0.116	<0.192	5,980	<0.960	<0.126	<0.111	1.08	<0.122
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.0941	<0.118	<0.128	1.21	0.866 J	<0.605	1.03	<0.116	<0.192	1,140	<0.960	<0.126	<0.111	0.715 J	<0.122
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<0.941	<1.18	<1.28	2.84 J	<1.29	<6.05	5.80 J	<1.16	<1.92	3,920	<9.60	<1.26	<1.11	<1.40	<1.22
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	0.186 J	<0.118	<0.128	4.41	1.98 J+	<0.605	1.58	<0.116	<0.192	3,510	<0.960	<0.126	<0.111	2.14 J+	<0.122
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<2.35 UJ	<2.95 UJ	<3.20 UJ	4.68 J	<3.22 UJ	<15.1 UJ	8.58 J	<2.90 UJ	<4.80 UJ	4,200	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.0941	<0.118	<0.128	4.48	1.88	<0.605	1.92	<0.116	<0.192	3,840	<0.960	<0.126	<0.111	2.24	<0.122
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,670	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,520	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.471	<0.590	<0.640	4.35 J	1.69 J	<3.03	1.59 J	<0.580	<0.960	3,410 J+	<4.80	<0.630	<0.555	1.67 J	<0.610
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,910	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.0941	<0.118	<0.128	3.88	1.06	<0.605	1.69	<0.116	<0.192	2,840	<0.960	<0.126	<0.111	1.15	<0.122
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.0941	<0.118	<0.128	2.96	1.12	<0.605	1.07	<0.116	<0.192	2,850	<0.960	<0.126	<0.111	1.07	<0.122
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.471	<0.590	<0.640	2.46 J	<0.645	<3.03	<0.640	<0.580	<0.960	2,840 J	<4.80	<0.630	<0.555	<0.700	<0.610
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.0941	<0.118	<0.128	2.90	1.33	<0.605	2.21	<0.116	<0.192	3,620	<0.960	<0.126	<0.111	1.30	<0.122
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,520	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.0941	<0.118	0.298 J	2.74	0.954 J	<0.605	2.96	<0.116	<0.192	7,120	<0.960	<0.126	<0.111	1.00 J	<0.122
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	5.96 J	<1.16	<1.92	4,850	<9.60	<1.26	<1.11	<1.40	<1.22
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.0941	<0.118	<0.128	2.56 J+	0.740 J	<0.605	2.84	<0.116	<0.192	5,020	<0.960	<0.126	<0.111	0.768 J	<0.122
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<2.35 UJ	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	8.37 J	<2.90 UJ	<4.80 UJ	4,090	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.0941	<0.118	<0.128	1.99	0.639 J	<0.605	1.73	<0.116	<0.192	4,300	<0.960	<0.126	<0.111	0.743 J	<0.122
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,920	<96.0	<12.6	<11.1	<14.0	<12.2

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,480	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.471	<0.590	<0.640	1.92 J	<0.645	<3.03	1.54 J	<0.580	<0.960	3,410 J+	<4.80	<0.630	<0.555	<0.700	<0.610
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,880	<96.0	<12.6	<11.1	<14.0	<12.2
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.0941	<0.118	<0.128	1.54	0.321 J	<0.605	1.44	<0.116	<0.192	2,820	<0.960	<0.126	<0.111	0.399 J	<0.122
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.0941	<0.118	<0.128	1.61	<0.129	<0.605	1.06	<0.116	<0.192	2,620	<0.960	<0.126	<0.111	<0.140	<0.122
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.0941	<0.118	<0.128	0.642 J	0.461 J	<0.605	0.533 J	<0.116	<0.192	1,450	<0.960	<0.126	<0.111	0.209 J	<0.122
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	0.188 J	<0.118	<0.128	1.00 J	0.618 J	<0.605	0.610 J	<0.116	<0.192	1,240	<0.960	<0.126	<0.111	0.576 J	<0.122
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.0941	<0.118	<0.128	1.14	0.707 J	<0.605	0.717 J	<0.116	<0.192	704 J+	<0.960	<0.126	<0.111	0.612 J	<0.122
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.0941	<0.118	<0.128	0.478 J	0.509 J	<0.605	0.585 J	<0.116	<0.192	1,330	<0.960	<0.126	<0.111	0.441 J	<0.122
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.0941	<0.118	<0.128	0.564 J	0.346 J	<0.605	<0.128	<0.116	<0.192	608	<0.960	<0.126	<0.111	0.274 J	<0.122
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	857	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.0941	<0.118	<0.128	2.14	0.356 J	<0.605	0.863 J	<0.116	<0.192	1,100	<0.960	<0.126	<0.111	1.08	<0.122
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.0941	<0.118	<0.128	1.89	0.216 J	<0.605	0.652 J	<0.116	<0.192	871	<0.960	<0.126	<0.111	0.948 J	<0.122
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	671	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.0941	<0.118	<0.128	0.170 J	<0.129	<0.605	<0.128	<0.116	<0.192	21.2	<0.960	<0.126	<0.111	0.190 J	<0.122
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	20.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.0941	<0.118	<0.128	0.644 J	<0.129	<0.605	0.471 J	<0.116	<0.192	363 J+	<0.960	<0.126	<0.111	0.307 J	<0.122
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.0941	<0.118	<0.128	1.48	0.166 J	<0.605	0.178 J	<0.116	<0.192	374	<0.960	<0.126	<0.111	0.722 J	<0.122
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	417	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.0941	<0.118	<0.128	0.622 J	0.371 J	<0.605	<0.128	<0.116	<0.192	395	<0.960	<0.126	<0.111	0.259 J	<0.122
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.0941	<0.118	<0.128	1.99	0.431 J	<0.605	0.789 J	<0.116	<0.192	1,060	<0.960	<0.126	<0.111	1.10	<0.122
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.0941	<0.118	<0.128	2.08	0.203 J	<0.605	0.793 J	<0.116	<0.192	908	<0.960	<0.126	<0.111	0.777 J	<0.122
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.0941	<0.118	<0.128	2.22	<0.129	<0.605	<0.128	<0.116	<0.192	969	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.0941	<0.118	<0.128	0.375 J	0.147 J	<0.605	<0.128	<0.116	<0.192	56.8	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.0941	<0.118	<0.128	0.346 J	<0.129	<0.605	0.227 J	<0.116	<0.192	32.5 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.0941	<0.118	<0.128	0.294 J	<0.129	<0.605	<0.128	<0.116	<0.192	31.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.0941	<0.118	<0.128	0.274 J	<0.129	<0.605	<0.128	<0.116	<0.192	35.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	9.08	5.28	<0.605	2.50	<0.116	<0.192	8,990	<0.960	<0.126	<0.111	3.00	0.473 J
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	13.2	6.19	<0.605	5.24	<0.116	<0.192	10,700	<0.960	<0.126	<0.111	4.51	<0.122
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<4.71	<5.90	<6.40	10.6 J	<6.45	<30.3	<6.40	<5.80	<9.60	4,950	<48.0	16.2 J	<5.55	<7.00	<6.10
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	12.1	5.74	<0.605	<0.128	<0.116	<0.192	11,200	<0.960	<0.126	<0.111	4.53	0.149 J
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	9.38	4.64	<0.605	<0.128	<0.116	<0.192	7,970	<0.960	<0.126	<0.111	3.70	<0.122
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<9.41	<0.118	<0.128	10.7	3.75	<0.605	4.15	<0.116	<0.192	7,230	<0.960	<0.126	<0.111	3.77	0.157 J
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	9,500	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.471	<0.590	<0.640	9.38	3.77 J	<3.03	2.96 J	<0.580	<0.960	10,100 J+	<4.80	<0.630	<0.555	3.33 J	<0.610
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.471	<0.590	<0.640	9.24	3.51 J	<3.03	8.04	<0.580	<0.960	10,300	<4.80	<0.630	<0.555	3.44 J	<0.610
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	7.28	3.82	<0.605	2.24	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	2.86	0.148 J
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	9.63	5.00	<0.605	<0.128	<0.116	<0.192	10,700	<0.960	<0.126	<0.111	4.13	0.170 J
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<23.5	<29.5	<32.0	<34.0	<32.3	<151	<32.0	<29.0	<48.0	7,970	<240	43.0 J	<27.8	<35.0	<30.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	7.33	3.71	<0.605	3.41	<0.116	<0.192	8,840	<0.960	<0.126	<0.111	2.71	0.152 J
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.0941	<0.118	<0.128	10.9	4.73	<0.605	<0.128	<0.116	<0.192	10,200	<0.960	<0.126	<0.111	3.45	<0.122
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	2.73	1.62	<0.605	0.809 J	<0.116	<0.192	1,380	<0.960	<0.126	<0.111	1.22	<0.122
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	4.87	2.46	<0.605	2.06	<0.116	<0.192	2,860	<0.960	<0.126	<0.111	1.94	<0.122
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	3.93 J	<1.29	<6.05	<1.28	<1.16	<1.92	3,760	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	2.76 J	<1.29	<6.05	5.26 J	<1.16	<1.92	3,760	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.766 J	0.454 J	<0.605	0.173 J	<0.116	<0.192	474	<0.960	<0.126	<0.111	0.184 J	<0.122
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.924 J	0.569 J	<0.605	0.214 J	<0.116	<0.192	462	<0.960	<0.126	<0.111	0.426 J	<0.122
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	2.62 J	<1.29	<6.05	<1.28	<1.16	<1.92	1,910	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	3.20 J	<1.29	<6.05	<1.28	<1.16	<1.92	1,890	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	8.86 J	5.67 J	<6.05	<1.28	<1.16	<1.92	6,040	<9.60	<1.26	<1.11	4.74 J	<1.22
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<0.941	<1.18	<1.28	8.84 J	6.04 J	<6.05	<1.28	<1.16	<1.92	6,030	<9.60	<1.26	<1.11	4.62 J	<1.22
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	7,070	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	7,210	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.189 J	<0.129	<0.605	<0.128	<0.116	<0.192	128	<0.960	<0.126	<0.111	<0.140	<0.122

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.188 J	<0.129	<0.605	<0.128	<0.116	<0.192	134	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.204 J	<0.129	<0.605	<0.128	<0.116	<0.192	313	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.228 J	<0.129	<0.605	<0.128	<0.116	<0.192	301 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.371 J	<0.129	<0.605	<0.128	<0.116	<0.192	390	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	0.294 J	<0.129	<0.605	<0.128	<0.116	<0.192	385	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	118	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	143	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	2.03	0.743 J	<0.605	<0.128	<0.116	<0.192	1,860 J	<0.960	<0.126	<0.111	0.719 J	<0.122
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	2.10	0.833 J	<0.605	<0.128	<0.116	<0.192	1,910 J	<0.960	<0.126	<0.111	0.705 J	0.123 J
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	1.13	0.404 J	<0.605	0.320 J	<0.116	<0.192	1,270 J	<0.960	<0.126	<0.111	0.410 J	<0.122
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	1.64	0.713 J	<0.605	0.722 J	<0.116	<0.192	2,040 J	<0.960	<0.126	<0.111	0.669 J	<0.122
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	4.68 J-	1.82 J-	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	3,570 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	1.74 J-	<0.122 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.0941	<0.118	<0.128	5.37	2.05	<0.605	<0.128	<0.116	<0.192	4,030	<0.960	<0.126	<0.111	1.82	0.166 J
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.0941	<0.118	<0.128	1.81 J+	0.629 J	<0.605	<0.128	<0.116	<0.192	2,270	<0.960	<0.126	<0.111	0.605 J	<0.122
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<4.71	<0.590	<0.640	1.71 J	<0.645	<3.03	0.835 J	<0.580	<0.960	1,350	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	4.74 J	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	1,670	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<2.35 UJ	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	1,620	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.0941	<0.118	<0.128	1.13	<0.129	<0.605	<0.128	<0.116	<0.192	1,130 J+	<0.960	<0.126	<0.111	<0.140	<0.122 UJ
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.0941	<0.118	<0.128	2.75	<0.129	<0.605	<0.128	<0.116	<0.192	2,150	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.0941	<0.118	<0.128	0.152 J	<0.129	<0.605	<0.128	<0.116	<0.192	173	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	4.62 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	1.95 J	<0.960	<0.126	<0.111	<0.140	<0.122 UJ
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	2.98 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	0.846 J	0.580 J	<0.605	<0.128	<0.116	<0.192	277	<0.960	<0.126	<0.111	0.457 J	<0.122
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	2.03	0.539 J	<0.605	0.737 J	<0.116	<0.192	1,210 J+	<0.960	<0.126	<0.111	1.01	<0.122
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	884 J	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	1,220 J	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	2.32	0.674 J	<0.605	1.43	<0.116	<0.192	1,470 J	<0.960	<0.126	<0.111	0.877 J	<0.122
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	2.14	0.706 J	<0.605	1.17	<0.116	<0.192	912 J	<0.960	<0.126	<0.111	1.00 J	<0.122
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.0941	<0.118 UJ	<0.128	0.176 J	<0.129	<0.605	<0.128	<0.116	<0.192	45.1	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.0941	<0.118 UJ	<0.128	0.182 J	<0.129	<0.605	<0.128	<0.116	<0.192	44.1	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.0941	<0.118	<0.128	0.383 J	0.218 J	<0.605	0.312 J	<0.116	<0.192	76.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.0941	<0.118	<0.128	0.259 J	<0.129	<0.605	<0.128	<0.116	<0.192	59.9	<0.960	<0.126	<0.111	<0.140	<0.122 UJ
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	81.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.0941	<0.118	<0.128	4.27	1.46	<0.605	<0.128	<0.116	<0.192	6,140	<0.960	<0.126	<0.111	1.42	<0.122
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	1,240	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.0941	<0.118	<0.128	2.44	<0.129	<0.605	<0.128	<0.116	<0.192	1,160	<0.960	<0.126	<0.111	0.946 J	<0.122
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.0941	<0.118	<0.128	1.56	0.221 J	<0.605	<0.128	<0.116	<0.192	891	<0.960	<0.126	<0.111	0.643 J	<0.122
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.0941	<0.118	<0.128	1.78	<0.129	<0.605	<0.128	<0.116	<0.192	1,430	<0.960	<0.126	<0.111	0.612 J	<0.122
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.86	0.968 J	<0.605	<0.128	<0.116	<0.192	1,830	<0.960	<0.126	<0.111	0.749 J	<0.122
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	2.91	0.558 J	<0.605	1.26	<0.116	<0.192	2,350	<0.960	<0.126	<0.111	1.06	<0.122
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.471	<0.590	<0.640	1.90 J	<0.645	<3.03	1.01 J	<0.580	<0.960	2,250	<4.80	<0.630	<0.555	0.810 J	<0.610
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	3.07	<0.129	<0.605	<0.128	<0.116	<0.192	3,860	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	14.8	8.45 J-	<0.605	3.80	<0.116	<0.192	6,320	<0.960	<0.126	<0.111	7.16	<0.122
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	5,350	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	11.3	5.15	<0.605	1.89	<0.116	<0.192	3,790	<0.960	<0.126	<0.111	6.10	<0.122
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	12.9	6.25	<0.605	<0.128	<0.116	<0.192	3,950	<0.960	<0.126	<0.111	6.85	<0.122
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	11.2	5.71	<0.605	<0.128	<0.116	<0.192	3,990	<0.960	<0.126	<0.111	5.60	<0.122
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,590	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,710 J+	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	5.26	1.92	<0.605	0.960 J	<0.116	<0.192	1,950	<0.960	<0.126	<0.111	2.41	<0.122
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	4.76	1.58	<0.605	<0.128	<0.116	<0.192	1,630	<0.960	<0.126	<0.111	1.81	0.311 J
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	2.36	0.972 J	<0.605	<0.128	<0.116	<0.192	1,510 J+	<0.960	<0.126	<0.111	1.13	<0.122 UJ
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	2.89	1.40	<0.605	<0.128	<0.116	<0.192	1,950	<0.960	<0.126	<0.111	1.41	<0.122

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	2,150	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	756	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	1,010	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	9.46	5.71 J-	<0.605	2.53	<0.116	<0.192	3,530	<0.960	<0.126	<0.111	4.75	<0.122
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	5,930	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	15.2	8.95	<0.605	3.70	<0.116	<0.192	5,800	<0.960	<0.126	<0.111	7.90	<0.122
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	14.5	8.16	<0.605	3.07	<0.116	<0.192	3,970	<0.960	<0.126	<0.111	6.57	<0.122
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	12.4	6.41	<0.605	2.70	<0.116	<0.192	4,040	<96.0	<0.126	<0.111	6.99	<0.122
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,270	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<9.41	<11.8	<12.8	20.3 J	<12.9	<60.5	<12.8	<11.6	<19.2	6,720	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	2.29	0.809 J	<0.605	0.368 J	<0.116	<0.192	646 J+	<0.960	<0.126	<0.111	0.942 J	0.197 J
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	0.375 J	<0.129	<0.605	<0.128	<0.116	<0.192	531	<0.960	<0.126	<0.111	<0.140	0.447 J
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	415 J+	<0.960	<0.126	<0.111	<0.140	<0.122 UJ
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	3.26	1.21	<0.605	0.471 J	<0.116	<0.192	1,830	<0.960	<0.126	<0.111	1.27	<0.122
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	1,620	<48.0	8.24 J	<5.55	<7.00	<6.10
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.0941	<0.118	<0.128	1.72	0.525 J	<0.605	0.192 J	<0.116	<0.192	985	<0.960	<0.126	<0.111	0.560 J	0.225 J
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	920	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	10.0	5.10	<0.605	<0.128	<0.116	<0.192	4,840	<0.960	<0.126	<0.111	3.82	<0.122
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	2,110	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	6.74	1.89	<0.605	<0.128	<0.116	<0.192	2,440 J+	<0.960	<0.126	<0.111	2.77	<0.122
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	4.96	1.48	<0.605	1.13	<0.116	<0.192	1,920	<0.960	<0.126	<0.111	2.12	<0.122
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	3.65	0.843 J	<0.605	<0.128	<0.116	<0.192	1,650	<0.960	<0.126	<0.111	1.32	<0.122
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	0.128 J	<0.118	<0.128	0.674 J	0.297 J	<0.605	<0.128	<0.116	<0.192	217	<0.960	<0.126	<0.111	0.273 J	<0.122
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.0941	<0.118	<0.128	7.41	4.03	<0.605	1.67	<0.116	<0.192	3,220	<0.960	<0.126	<0.111	3.44	<0.122
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.0941	<0.118	<0.128	6.36	2.39	<0.605	1.75	<0.116	<0.192	2,420	<0.960	<0.126	<0.111	2.69	<0.122
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	2,620	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	1.13	0.515 J	<0.605	0.461 J	0.137 J	<0.192	1,330	<0.960	<0.126	<0.111	0.410 J	<0.122
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	3.77	0.211 J	<0.605	0.373 J	<0.116	<0.192	113	<0.960	<0.126	<0.111	2.38	<0.122
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	2.98	0.201 J	<0.605	<0.128	<0.116	<0.192	95.5	<0.960	<0.126	<0.111	1.83	<0.122
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	3.76	0.280 J	<0.605	<0.128	<0.116	<0.192	146	<0.960	<0.126	<0.111	2.53 J+	<0.122
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	3.77	0.338 J	<0.605	<0.128	<0.116	<0.192	101	<0.960	<0.126	<0.111	2.25	0.240 J
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	2.84	<0.129	<0.605	<0.128	<0.116	<0.192	119	<0.960	<0.126	<0.111	1.21	<0.122
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	1.38	<0.129	<0.605	<0.128	<0.116	<0.192	92.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	1.21	<0.129	<0.605	<0.128	<0.116	<0.192	75.1	<0.960	<0.126	<0.111	0.211 J	<0.122
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	0.461 J	<0.129	<0.605	<0.128	<0.116	<0.192	267 J+	<0.960	<0.126	<0.111	0.146 J	0.125 J
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.0941	<0.118	0.361 J	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	98.3	<0.960	<0.126	<0.111	<0.140 UJ	<0.122 UJ
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.0941 UJ	<0.118 UJ	<0.128 UJ	0.363 J	0.563 J	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	205 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	0.295 J	<0.122 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	3.88	1.52	<0.605	1.31	<0.116	<0.192	2,740	<0.960	<0.126	<0.111	1.57	<0.122
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	3.93	<0.129	<0.605	<0.128	<0.116	<0.192	3,100	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.0941	<0.118	<0.128	2.06	0.654 J	<0.605	0.698 J	<0.116	<0.192	1,940	<0.960	<0.126	<0.111	0.754 J	<0.122
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,400	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.676 J	0.206 J	<0.605	0.313 J	<0.116	<0.192	373	<0.960	<0.126	<0.111	0.189 J	<0.122
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	5.11	0.403 J	<0.605	0.425 J	<0.116	<0.192	164	<0.960	<0.126	<0.111	3.22	<0.122
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	3.61	0.321 J	<0.605	<0.128	<0.116	<0.192	153	<0.960	<0.126	<0.111	2.52 J+	<0.122
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	4.08	0.353 J	<0.605	<0.128	<0.116	<0.192	129	<0.960	<0.126	<0.111	2.47	<0.122
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	2.79	0.162 J	<0.605	<0.128	<0.116	<0.192	154	<4.80	<0.126	<0.111	1.11	<0.122
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.57	0.149 J	<0.605	<0.128	<0.116	<0.192	180	<0.960	<0.126	<0.111	0.700 J	<0.122
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.471	<0.590	<0.640	1.40 J	<0.645	<3.03	<0.640	<0.580	<0.960	250	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.82	0.262 J	<0.605	0.333 J	<0.116	<0.192	578 J+	<0.960	<0.126	<0.111	0.559 J	<0.122
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	344	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	131	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	2.26	0.574 J	<0.605	<0.128	<0.116	<0.192	2,180	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	2.01	<0.129	<0.605	<0.128	<0.116	<0.192	1,730	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.68	0.394 J	<0.605	<0.128	<0.116	<0.192	1,600	<0.960	<0.126	<0.111	0.511 J	<0.122

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	1,370	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.0941	<0.118	<0.128	<0.136	0.452 J	<0.605	<0.128	<0.116	<0.192	10,300 J+	<0.960	<0.126	<0.111	0.370 J	<0.122
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.0941	<0.118	<0.128	3.42	0.921 J	<0.605	1.85	<0.116	<0.192	4,240	<0.960	<0.126	<0.111	1.82	<0.122
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	4,220	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.0941	<0.118	<0.128	2.36	0.768 J	<0.605	<0.128	<0.116	<0.192	5,060	<0.960	<0.126	<0.111	0.778 J	<0.122
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.0941	<0.118	<0.128	5.95	1.99	<0.605	3.03	<0.116	<0.192	7,970	<0.960	<0.126	<0.111	1.83	<0.122
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	90.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	85.4	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	0.870 J	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	28.1	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	0.192 J	<0.129	<0.605	0.251 J	<0.116	<0.192	126	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	0.148 J	<0.129	<0.605	<0.128	<0.116	<0.192	97.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	64.9	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.0941	<0.118	<0.128	5.72	2.19	<0.605	2.14	<0.116	<0.192	1,100 J+	<0.960	<0.126	<0.111	1.76	<0.122
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.0941	<0.118	<0.128	2.33	1.08	<0.605	1.46	<0.116	<0.192	2,660	<0.960	<0.126	<0.111	1.02	<0.122
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.0941	<0.118	<0.128	2.52	1.14	<0.605	1.40	<0.116	<0.192	2,560	<0.960	<0.126	<0.111	1.05	<0.122
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	5,210	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.0941	<0.118	<0.128	1.34	0.411 J	<0.605	<0.128	<0.116	<0.192	1,520	<0.960	<0.126	<0.111	0.497 J	<0.122
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.0941	<0.118	<0.128	3.80	0.489 J	<0.605	1.84	<0.116	<0.192	3,410	<0.960	<0.126	<0.111	1.34	<0.122
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	0.213 J	<0.129 UJ	<0.605	<0.128	<0.116	<0.192	38.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	0.290 J	<0.129	<0.605	<0.128	<0.116	<0.192	15.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	0.275 J	<0.129	<0.605	<0.128	<0.116	<0.192	15.4	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.792 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.964 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	2.78 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	3.05 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	1.86	0.936 J	<0.605	0.488 J	<0.116	<0.192	2,940	<0.960	<0.126	<0.111	0.814 J	<0.122
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<0.941 UJ	<1.18 UJ	<1.28 UJ	3.78 J	<1.29 UJ	<6.05 UJ	2.57 J	<1.16 UJ	<1.92 UJ	602	<9.60 UJ	<1.26 UJ	<1.11 UJ	2.99 J	<1.22 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	525	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.0941	<0.118	0.224 J	0.372 J	<0.129	<0.605	<0.128	<0.116	<0.192	360	<0.960	<0.126	<0.111	0.158 J	<0.122
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	609 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	21.9	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	12.5	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	15.9 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	12.8	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	24.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	2.49	<0.118	<0.128	0.516 J	0.526 J	<0.605	0.384 J	<0.116	<0.192	130	<0.960	<0.126	<0.111	0.509 J	<0.122
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<0.941 UJ	<1.18 UJ	<1.28 UJ	4.46 J	<1.29 UJ	<6.05 UJ	2.97 J	<1.16 UJ	<1.92 UJ	1,150	<9.60 UJ	<1.26 UJ	<1.11 UJ	2.89 J	<1.22 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.941	<1.18	<1.28	2.16 J	<1.29	<6.05	<1.28	<1.16	<1.92	767	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.941	<0.118	0.185 J	0.718 J	0.136 J	<0.605	<0.128	<0.116	<0.192	501	<0.960	<0.126	<0.111	0.270 J	<0.122
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	849 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.0941	<0.118	<0.128	0.248 J	<0.129	<0.605	<0.128	<0.116	<0.192	20.3	<0.960	<0.126	<0.111	0.374 J	<0.122
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.0941 UJ	<0.118 UJ	<0.128 UJ	0.450 J	<0.129 UJ	<0.605 UJ	0.464 J	<0.116 UJ	<0.192 UJ	135	<0.960 UJ	<0.126 UJ	<0.111 UJ	0.224 J	<0.122 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	148	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	24.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	47.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	0.213 J	0.477 J	<0.605	<0.128	<0.116	<0.192	316	<0.960	<0.126	<0.111	0.400 J	<0.122
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	0.138 J	<0.129	<0.605	<0.128	<0.116	<0.192	153	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	46.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.843 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	52.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	0.790 J	0.558 J	<0.605	0.491 J	<0.116	<0.192	695	<0.960	<0.126	<0.111	0.460 J	<0.122
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	0.387 J	<0.129	<0.605	<0.128	<0.116	<0.192	33.1	<0.960	<0.126	<0.111	<0.140	<0.122

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	180	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	18.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	30.1	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.0941	<0.118	<0.128	2.44	0.612 J	<0.605	2.22	<0.116	<0.192	5,540	<0.960	<0.126	<0.111	0.584 J	<0.122
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	8,910	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<0.941	<1.18	<1.28	1.68 J	<1.29	<6.05	6.48 J	<1.16	<1.92	6,480	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	8,490	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.35 UJ	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	7.62 J	<2.90 UJ	<4.80 UJ	5,290	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	6,580	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	7,100	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	5,710 J+	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.471	<0.590	<0.640	1.39 J	<0.645	<3.03	1.30 J	<0.580	<0.960	3,870	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<1.88 UJ	<2.36 UJ	<2.56 UJ	<2.72 UJ	<2.58 UJ	<12.1 UJ	<2.56 UJ	<2.32 UJ	<3.84 UJ	4,000 J-	<19.2 UJ	<2.52 UJ	<2.22 UJ	<2.80 UJ	<2.44 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.0941	<0.118	<0.128	2.37	0.836 J	<0.605	5.26	<0.116	<0.192	6,060	<0.960	<0.126	<0.111	0.685 J	<0.122
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.0941	<0.118	<0.128	1.68	0.712 J	<0.605	1.98	<0.116	<0.192	5,610	<0.960	<0.126	<0.111	0.558 J	<0.122
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<18.8	<23.6	<25.6 UJ	<27.2	<25.8	<121	<25.6	<23.2	<38.4	6,900	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.0941	<0.118	<0.128	1.87	0.509 J	<0.605	1.98	<0.116	<0.192	5,440	<0.960	<0.126	<0.111	0.523 J	<0.122
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<18.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4	3,100	<192	<25.2	<22.2	<28.0	<24.4
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.588 J	0.503 J	<0.605	0.593 J	<0.116	<0.192	704	<0.960	<0.126	<0.111	0.462 J	<0.122
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.397 J	<0.129	<0.605	<0.128	<0.116	<0.192	287	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.0941	<0.118	0.663 J	0.336 J	<0.129	<0.605	<0.128	<0.116	<0.192	273	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	203	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.0941	<0.118	0.614 J	<0.136	<0.129	<0.605	2.85	<0.116	<0.192	214	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	125	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	151	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	145	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	150	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	27.9	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	27.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.752 J	0.309 J	<0.605	0.919 J	<0.116	<0.192	1,630	<0.960	<0.126	<0.111	0.217 J	<0.122
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.915 J	0.348 J	<0.605	0.717 J	<0.116	<0.192	1,850	<0.960	<0.126	<0.111	0.214 J	<0.122
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.831 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.889 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	11.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	11.7	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	16.3 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	16.4 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	2.45 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	2.43 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	12.1	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	12.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	1,480	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.672 J	<0.129	<0.605	0.339 J	<0.116	<0.192	2,720	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.695 J	<0.129	<0.605	0.597 J	<0.116	<0.192	2,190	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	0.727 J	<0.129	<0.605	0.753 J	<0.116	<0.192	2,110	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	1.39	0.364 J	<0.605	<0.128	<0.116	<0.192	4,050	<0.960	<0.126	<0.111	0.345 J	<0.122
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	1.54	0.363 J	<0.605	<0.128	<0.116	<0.192	4,000	<0.960	<0.126	<0.111	0.385 J	<0.122
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	2.15	0.934 J	<0.605	1.81	<0.116	<0.192	4,690	<0.960	<0.126	<0.111	0.664 J	<0.122
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	4,030 J	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	1.59	0.380 J	<0.605	1.63	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	0.454 J	<0.122
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	3,140	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	1.96	0.515 J	<0.605	<0.128	<0.116	<0.192	3,560	<0.960	<0.126	<0.111	0.535 J	<0.122
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,260	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	2,520	<96.0	<12.6	<11.1	<14.0	<12.2

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	10.0 J	<5.80	<9.60	2,740	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.471 UJ	<0.590 UJ	<0.640 UJ	1.50 J	<0.645 UJ	<3.03 UJ	0.770 J	<0.580 UJ	<0.960 UJ	2,760 J-	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,780	<96.0	<12.6	<11.1	<14.0	<12.2
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	1.03	0.258 J	<0.605	1.15	<0.116	<0.192	2,250	<0.960	<0.126	<0.111	0.297 J	<0.122
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.0941	<0.118	<0.128	0.552 J	0.170 J	<0.605	0.522 J	<0.116	<0.192	1,210	<0.960	<0.126	<0.111	0.176 J	<0.122
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	973	<48.0	22.4 J	<5.55	<7.00	<6.10
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<4.71	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60	888	<48.0	<6.30	<5.55	<7.00	<6.10
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	0.821 J	<0.580	<0.960	924	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.28	0.688 J	<0.605	0.961 J	<0.116	<0.192	1,670	<0.960	<0.126	<0.111	0.610 J	<0.122
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	1.16	0.609 J	<0.605	0.812 J	<0.116	<0.192	1,640	<0.960	<0.126	<0.111	0.573 J	<0.122
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.456 J	<0.129	<0.605	0.351 J	<0.116	<0.192	231	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.344 J	<0.129 UJ	<0.605	0.486 J	<0.116	<0.192	194	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.236 J	<0.129	<0.605	<0.128	<0.116	<0.192	182	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	91.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	90.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	36.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	36.5	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	8.18	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.0941 UJ	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	0.265 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.714 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.731 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	0.190 J	<0.116	<0.192	468	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	181 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	2.19 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.63	0.706 J	<0.605	1.11	<0.116	<0.192	3,460	<0.960	<0.126	<0.111	0.639 J	<0.122
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<0.941	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92	1,270	<9.60	<1.26	<1.11	<1.40	<1.22
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	0.628 J	<0.129	<0.605	<0.128	<0.116	<0.192	983	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.01 J+	0.198 J	<0.605	0.415 J	<0.116	<0.192	1,060	<0.960	<0.126	<0.111	0.551 J	<0.122
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.83	0.233 J	<0.605	<0.128	<0.116	<0.192	874	<0.960	<0.126	<0.111	1.04	<0.122
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	837	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	2.28	<0.129	<0.605	<0.128	<0.116	<0.192	729	<0.960	<0.126	<0.111	1.12	<0.122
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	687	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.62	0.134 J	<0.605	0.223 J	<0.116	<0.192	489	<0.960	<0.126	<0.111	0.572 J	<0.122
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	475	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.35	<0.129	<0.605	<0.128	<0.116	<0.192	473	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.12	<0.129	<0.605	0.271 J	<0.116	<0.192	447	<0.960	<0.126	<0.111	0.304 J	<0.122
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.0941	<0.118	<0.128	1.19	<0.129	<0.605	0.432 J	<0.116	<0.192	412 J+	<0.960	<0.126	<0.111	0.430 J	<0.122
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	716	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	451	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	1.18	0.624 J	<0.605	0.865 J	<0.116	<0.192	1,350	<0.960	<0.126	<0.111	0.618 J	<0.122
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	0.157 J	<0.118	<0.128	0.584 J	<0.129	<0.605	0.400 J	<0.116	<0.192	154 J-	<0.960	<0.126	<0.111	0.164 J	<0.122
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	0.505 J	<0.129	<0.605	0.759 J	<0.116	<0.192	451	<0.960	0.394 J	<0.111	<0.140	<0.122
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	0.580 J	<0.129	<0.605	0.426 J	<0.116	<0.192	441	<0.960	<0.126	<0.111	0.159 J	<0.122
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.471 UJ	<0.590 UJ	<0.640 UJ	<0.680 UJ	<0.645 UJ	<3.03 UJ	<0.640 UJ	<0.580 UJ	<0.960 UJ	305	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	236	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	0.558 J	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	373	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	133	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	34.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	38.0	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	46.7	<0.960	<0.126	<0.111	<0.140	<0.122 UJ
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	44.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	1.07	<0.129	<0.605	<0.128	<0.116	<0.192	685	<0.960	<0.126	<0.111	0.361 J	<0.122
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	805	<24.0	<3.15	<2.78	<3.50	<3.05

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.0941	<0.118	<0.128	1.23	0.135 J	<0.605	0.400 J	<0.116	<0.192	904	<0.960	<0.126	<0.111	0.488 J	<0.122
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.0941	<0.118	<0.128	0.920 J	0.628 J	<0.605	0.805 J	<0.116	<0.192	110 J	<0.960	<0.126	<0.111	0.561 J	<0.122
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.471 UJ	<0.590 UJ	<0.640 UJ	1.17 J	<0.645 UJ	<3.03 UJ	1.27 J	<0.580 UJ	<0.960 UJ	287	<4.80 UJ	<0.630 UJ	<0.555 UJ	0.751 J	<0.610 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	217 J+	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	147	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	120	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.0941	<0.118	<0.128	0.557 J	0.536 J	<0.605	0.537 J	<0.116	<0.192	157	<0.960	<0.126	<0.111	0.471 J	<0.122
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.471 UJ	<0.590 UJ	<0.640 UJ	<0.680 UJ	<0.645 UJ	<3.03 UJ	1.27 J	<0.580 UJ	<0.960 UJ	212	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.471	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960	229 J+	<4.80	<0.630	<0.555	<0.700	<0.610
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	133	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	122	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.0941	<0.118	<0.128	0.402 J	<0.129	<0.605	<0.128	<0.116	<0.192	407 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	165	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	114	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	298	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	0.136 J	<0.116	<0.192	144	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	13.2 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.237 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.232 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.336 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.609 J	0.428 J	<0.605	0.809 J	<0.116	<0.192	705	<0.960	<0.126	<0.111	0.447 J	<0.122
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	0.582 J	<0.129	<0.605	0.371 J	<0.116	<0.192	758	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<1.88	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84	47.6 J	<19.2	<2.52	<2.22	<2.80	<2.44
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	4.51 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	214 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	9.07 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	8.04 J	<24.0	<3.15	<2.78	<3.50	<3.05
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.191 J	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	0.261 J	<0.118	<0.128	1.91	0.510 J	<0.605	<0.128	<0.116	<0.192	3,310	<0.960	<0.126	<0.111	0.533 J	<0.122
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.0941	<0.118	<0.128	0.840 J	0.281 J	<0.605	0.646 J	<0.116	<0.192	2,020	<0.960	<0.126	<0.111	0.216 J	<0.122
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.0941	<0.118	<0.128	0.443 J	<0.129	<0.605	<0.128	<0.116	<0.192	1,290	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.0941	<0.118	<0.128	1.36	0.366 J	<0.605	<0.128	<0.116	<0.192	3,560	<0.960	<0.126	<0.111	0.315 J	<0.122
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.0941	<0.118	<0.128	0.318 J	<0.129	<0.605	<0.128	<0.116	<0.192	1,470	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	0.369 J	<0.116	<0.192	121	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	43.7	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	34.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	26.8	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	23.2	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	0.186 J	<0.118	<0.128	0.794 J	0.154 J	<0.605	<0.128	<0.116	<0.192	424	<0.960	<0.126	<0.111	0.256 J	<0.122
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	7.96	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	8.00	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	1,440	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	1,420	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	0.323 J	<0.129	<0.605	0.365 J	<0.116	<0.192	12.8	<0.960	<0.126	<0.111	0.363 J	<0.122
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	0.308 J	<0.129	<0.605	0.346 J	<0.116	<0.192	12.3	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.0941 UJ	<0.118 UJ	<0.128 UJ	0.193 J	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ	7.61	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.0941	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	<0.471	<0.590	<0.640	1.60 J	<0.645	<3.03	<0.640	<0.580	<0.960	1.75 J	<4.80	<0.630	<0.555	1.52 J	<0.610
U4-T3	10/13/2022	N	EM02	N/A	N/A	<0.0941	<0.118	<0.128	4.01	1.87	<0.605	<0.128	<0.116	<0.192	3,720	<0.960	<0.126	<0.111	2.05	<0.122
U4-T3	11/3/2022	N	EM03	N/A	N/A	<0.0941	<0.118	<0.128	5.54	2.33	<0.605	2.09	<0.116	<0.192	3,460	<0.960	<0.126	<0.111	3.01 J+	<0.122
U4-T3	12/6/2022	N	EM04	N/A	N/A	<1.88 UJ	<2.36 UJ	<2.56 UJ	3.81 J	<2.58 UJ	<12.1 UJ	6.19 J	<2.32 UJ	<3.84 UJ	2,520	<19.2 UJ	<2.52 UJ	<2.22 UJ	<2.80 UJ	<2.44 UJ
U4-T3	1/9/2023	N	EM05	N/A	N/A	<0.0941	<0.118	<0.128	4.50	1.86	<0.605	1.63	<0.116	<0.192	3,390	<0.960	<0.126	<0.111	2.19	<0.122
U4-T3	2/13/2023	N	EM06	N/A	N/A	<9.41	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2	3,210	<96.0	<12.6	<11.1	<14.0	<12.2
U4-T3	3/13/2023	N	EM07	N/A	N/A	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	1,410	<24.0	<3.15	<2.78	<3.50	<3.05
U4-T3	4/19/2023	N	EM08	N/A	N/A	<0.0941	<0.118	<0.128	1.94	0.640 J	<0.605	0.658 J	<0.116	<0.192	1,150 J+	<0.960	<0.126	<0.111	0.810 J	<0.122
U4-T3	5/18/2023	N	EM09	N/A	N/A	<0.0941	<0.118	<0.128	1.87	0.557 J	<0.605	<0.128	<0.116	<0.192	1,750	<0.960	<0.126	<0.111	0.668 J	<0.122
U4-T3	6/12/2023	N	EM10	N/A	N/A	<0.0941	<0.118	<0.128	2.41	0.589 J	<0.605	1.13	<0.116	<0.192	1,720	<0.960	<0.126	<0.111	0.682 J	<0.122
U4-T3	7/11/2023	N	EM11	N/A	N/A	<0.0941	<0.118	<0.128	1.91	0.716 J	<0.605	0.657 J	<0.116	<0.192	1,490	<0.960	<0.126	<0.111	<0.140	<0.122
U4-T3	8/10/2023	N	EM12	N/A	N/A	<0.0941	<0.118	<0.128	1.14	<0.129	<0.605	<0.128	<0.116	<0.192	815	<0.960	<0.126	<0.111	0.598 J	<0.122
U4-T3	9/11/2023	N	EM13	N/A	N/A	<0.0941	<0.118	<0.128	1.29	<0.129	<0.605	<0.128	<0.116	<0.192	911	<0.960	<0.126	<0.111	<0.140	<0.122
U4-T3	10/16/2023	N	EM14	N/A	N/A	<2.35	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80	618	<24.0	<3.15	<2.78	<3.50	<3.05

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.11 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.845 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.576 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.536 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337 UJ	<0.105	<0.430	0.475 J	<1.00	<0.157 UJ	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	0.506 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.443 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<18.7	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.806 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<5.90
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785 UJ	<0.497	<0.870	<0.600	<0.625	<0.590 UJ
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.461 J	<20.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.999 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.63 J	<25.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	3.49 J	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.79 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.374	<0.105	<0.101	0.157 J	<0.337	<0.105	<0.430	2.41 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.478 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430 UJ	<0.430	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120	<0.125 UJ	<0.118 R
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.374	<0.105	3.56	<0.137	<0.337	<0.105	<0.430	0.970 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.89	<10.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.58 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.23 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.374	<0.105	16.6	0.184 J	<0.337	<0.105	<0.430	3.59 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	5.64 J	<10.0 UJ	<1.57 UJ	<0.993	<1.74	<1.20	<1.25	<1.18
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.797 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.543 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<7.48 UJ	<2.10 UJ	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.516 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.374	<0.105	0.730 J	<0.137	<0.337	<0.105	<0.430	2.04 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.05 J	<100	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.69 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.09 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.22 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4 UJ	<19.9	<34.8	<24.0	<25.0	<23.6
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 R
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.374	<0.105	4.56	<0.137	<0.337	<0.105	<0.430	0.976 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.60 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<3.74 UJ	<1.05 UJ	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	6.34 J	<10.0 UJ	<1.57 UJ	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.99 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<7.48	<2.10	7.88 J	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.87 J	<100	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.96 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	2.47 J	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.374	<0.105	7.88	<0.137	<0.337	<0.105	<0.430	2.30 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.637 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.44 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<9.35 UJ	<2.63 UJ	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.747 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.86 J	<100	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.33 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	3.45 J	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.374	<0.105	0.286 J	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7 UJ	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.819 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.540 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<9.35 UJ	<2.63 UJ	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.08 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.40 J	<100	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.19 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	0.220 J	<0.120	<0.125	<0.118
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993 UJ	<1.74	<1.20	<1.25	<1.18
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<25.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 R
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.47 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.47 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.73 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.33 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337 UJ	<0.105	<0.430	1.36 J	<1.00	<0.157 UJ	<9.93	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.831 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.16 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<93.5	<26.3	<25.3	<34.3	<84.3	<26.3	<108	<108	<250	<39.3	<24.8	<43.5 UJ	<30.0	<31.3	<29.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<37.4	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<11.8
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.571 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	4.54 J	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	0.335 J	<0.430	3.23 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	12.3 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.15	<1.00 UJ	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.54	<1.00 UJ	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	9.93 J+	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	9.73 J+	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.47	<10.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.42	<10.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.55 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.01 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.37	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.77	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.18	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.32	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<18.7 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	4.79 J	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<5.90 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<18.7	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.03	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<5.90
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497 UJ	<0.870	<0.600	<0.625	<0.590
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.28 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.856 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97 UJ	<8.70	<6.00	<6.25	<5.90
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.374	<0.105	0.126 J	<0.137	<0.337	<0.105	<0.430	0.479 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.580 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.491 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.693 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.767 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.757 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.566 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.02 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	7.82	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.87	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35 UJ	<3.00	<3.13	<2.95
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.570 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.635 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.474 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93 UJ	<17.4	<12.0	<12.5	<11.8
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	0.722 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	32.9	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	17.1	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	10.5	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70 UJ	<6.00	<6.25	<5.90
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	9.65	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.58 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.567 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.542 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.45 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.560 J	<50.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.28 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	0.181 J	<0.120	<0.125	<0.118
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.374	<0.105	1.69	<0.137	<0.337	<0.105	<0.430	11.0	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	2.86 J	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.05 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	8.31	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.26	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.478 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.374	<0.105	7.26	<0.137	<0.337	<0.105	<0.430	2.67 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	8.82 J	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.27 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	10.9	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	10.5	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.846 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.91 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.64 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.14 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.436 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.94 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.22	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.53 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.59 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.520 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<3.74 UJ	<1.05 UJ	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	<4.30 UJ	<10.0 UJ	<1.57 UJ	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	14.8	<1.00	<0.157	<0.993	<0.174	<0.120	<0.125	<0.118
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.81 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.83 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	0.232 J	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	0.326 J	<0.120	<0.125	<0.118
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<3.74 UJ	<1.05 UJ	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	<4.30 UJ	<10.0 UJ	<1.57 UJ	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	6.76	<10.0	<0.157	<0.993	<0.174	<0.120	<0.125	<0.118
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.08 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.06 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.16 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.374	<0.105	1.61	<0.137	<0.337	<0.105	<0.430	1.73 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.683 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.930 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.66 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.757 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.26 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.565 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<9.35 UJ	<2.63 UJ	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4	<19.9 UJ	<34.8	<24.0	<25.0	<23.6
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<7.48 UJ	<2.10 UJ	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.39 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<74.8	<21.0	<20.2	78.8 J	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.98 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<74.8	<21.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4	<19.9	<34.8	<24.0	<25.0	<23.6
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 R
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.374	<0.105	4.90	<0.137	<0.337	<0.105	<0.430	0.707 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.374	<0.105	5.43	<0.137	<0.337	<0.105	<0.430	0.866 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	5.54 J	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.374	<0.105	3.02	<0.137	<0.337	<0.105	<0.430	2.44 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	12.9 J	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	14.6	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	5.79 J+	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	6.35	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.544 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.510 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.58 J	<1.00	<0.157	<0.0993 UJ	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.64 J	<1.00	<0.157	<0.0993 UJ	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.13 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.47 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	8.45	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	8.69	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	3.38 J	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	3.38 J	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.14 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.32 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.555 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.78 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.57 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.48 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.82 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<18.7	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.71 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<5.90
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<18.7	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.95 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<5.90
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.639 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.31 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<1.87 UJ	<0.525 UJ	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.654 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.698 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70 UJ	<6.00	<6.25	<5.90
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<18.7	<5.25	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85	<4.97	<8.70	<6.00	<6.25	<5.90
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.52 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.69 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	4.62 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.17 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.11 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.55 J	<1.00	<0.157	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.98 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<3.74	<1.05	<1.01	<1.37	<3.37	<1.05	<4.30	5.02 J	<10.0	<1.57	<0.993	<1.74	<1.20	<1.25	<1.18
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.543 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.508 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.439 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.22 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.99 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.47 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	2.01 J	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.573 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<1.87 UJ	<0.525 UJ	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	7.70 J	<5.00 UJ	<0.785 UJ	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.03 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497 UJ	<0.870	<0.600	<0.625	<0.590
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.861 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.905 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.645 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.433 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.610 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.39 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.40 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<1.87 UJ	<0.525 UJ	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.531 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.964 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<1.87 UJ	<0.525 UJ	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.40 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<7.48	<2.10	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14	<1.99	<3.48	<2.40	<2.50	<2.36
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.08 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	0.321 J	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	1.30 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.576 J	<20.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.627 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.10	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	5.03	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.963 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.963 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.813 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.932 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.374 UJ	<0.105 UJ	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	0.573 J	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785	<0.497	<0.870	<0.600	<0.625	<0.590
U4-T3	10/13/2022	N	EM02	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.687 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	11/3/2022	N	EM03	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.879 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	12/6/2022	N	EM04	N/A	N/A	<7.48 UJ	<2.10 UJ	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ
U4-T3	1/9/2023	N	EM05	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	0.864 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	2/13/2023	N	EM06	N/A	N/A	<37.4	<10.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7	<9.93	<17.4	<12.0	<12.5	<11.8
U4-T3	3/13/2023	N	EM07	N/A	N/A	<9.35	<2.63	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95
U4-T3	4/19/2023	N	EM08	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	5/18/2023	N	EM09	N/A	N/A	<0.374	<0.105	0.962 J	<0.137	<0.337	<0.105	<0.430	1.96 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	6/12/2023	N	EM10	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	3.51 J	<50.0	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	7/11/2023	N	EM11	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.84 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	8/10/2023	N	EM12	N/A	N/A	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430	2.09 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	9/11/2023	N	EM13	N/A	N/A	<0.374	<0.105	13.0	<0.137	<0.337	<0.105	<0.430	2.71 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118
U4-T3	10/16/2023	N	EM14	N/A	N/A	<9.35	<2.63	3.08 J	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93	<2.48	<4.35	<3.00	<3.13	<2.95

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.907 J	<0.160	<0.234	<0.174
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.195	12.5 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.557 J	<0.160	<0.234	<0.174
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.528 J	<0.160	<0.234	<0.174
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.462 J	<0.160	<0.234	<0.174
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.241 J	<0.160	<0.234	<0.174
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.351 J	<0.160	<0.234	<0.174
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.356 J	<0.160	<0.234	<0.174
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.195	7.40	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.526 J	<0.160 UJ	<0.234	<0.174
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.382 J	<0.160	<0.234	<0.174
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.195	<4.06	<0.101	<0.127	<0.300	0.292 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.975	<20.3 UJ	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.195	6.58	<0.101	<0.127	<0.300	0.471 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.195	5.05	<0.101	<0.127	<0.300	0.330 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.307 J	<0.160	<0.234	<0.174
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.975	<20.3	<0.505	<0.635	10.1	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.195	<4.06	<0.101	<0.127	<0.300	0.910 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.195	<4.06	<0.101	<0.127	<0.300	0.644 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.260 J	<0.160	<0.234	<0.174
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.195	<4.06	<0.101	<0.127	<0.300	2.67	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.95	<40.6	<1.01	<1.27	<3.00	6.65 J	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.195	6.74	<0.101	<0.127	<0.300	0.333 J	<0.149	<0.118	0.609 J	<0.160	<0.234	<0.174
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	0.494 J	<0.278	<0.149	<0.118	0.753 J	<0.160	<0.234	<0.174
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<3.90 UJ	<81.2 UJ	<2.02 UJ	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ	<3.48 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	0.342 J	<0.278	<0.149	<0.118	0.602 J	<0.160	<0.234	<0.174
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.384 J	<0.160	<0.234	<0.174
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.195	4.43 J	<0.101	<0.127	0.379 J	<0.278	<0.149	<0.118	0.638 J	<0.160	<0.234	<0.174
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.607 J	<0.160	<0.234	<0.174
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.252 J	<0.160	<0.234	<0.174
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	0.471 J	2.08	<0.149	<0.118	0.623 J	<0.160	<0.234	<0.174
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.195	5.71	<0.101	<0.127	<0.300	0.341 J	<0.149	<0.118	0.460 J	<0.160	<0.234	<0.174
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.195	4.31 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	0.513 J	<0.149	<0.118	0.429 J	<0.160	<0.234	<0.174
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	0.450 J	<0.278	<0.149	<0.118	0.514 J	<0.160	<0.234	<0.174
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	0.389 J	<0.278	<0.149	<0.118	0.394 J	<0.160	<0.234	<0.174
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.95 UJ	<40.6 UJ	<1.01 UJ	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ	<1.74 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	0.300 J	<0.278	<0.149	<0.118	0.429 J	<0.160	<0.234	<0.174
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.195	15.6 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.629 J	<0.160	<0.234	<0.174
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.512 J	<0.160	<0.234	<0.174
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.195	<4.06	<0.101	<0.127	<0.300	0.863 J	<0.149	<0.118	0.263 J	<0.160	<0.234	<0.174
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<9.75	1,440	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.195	4.41 J	<0.101	<0.127	<0.300	3.53	<0.149	<0.118	0.745 J	<0.160	<0.234	<0.174
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.195	13.0	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.259 J	<0.160	<0.234	<0.174
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.195	<4.06	<0.101	<0.127	0.397 J	<0.278	<0.149	<0.118	0.652 J	<0.160	<0.234	<0.174
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<4.88 UJ	<102 UJ	<2.53 UJ	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ	<4.35 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.195	<4.06	<0.101	<0.127	0.370 J	<0.278	<0.149	<0.118	0.819 J	<0.160	<0.234	<0.174
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.195	26.7 J+	<0.101	<0.127	0.394 J	<0.278	<0.149	<0.118	0.666 J	<0.160	<0.234	<0.174
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.195	<4.06	<0.101	<0.127	0.307 J	<0.278	<0.149	<0.118	0.512 J	<0.160	<0.234	<0.174
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.195	<4.06	<0.101	<0.127	0.479 J	<0.278	<0.149	<0.118	0.614 J	<0.160	<0.234	<0.174
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.195	5.12	<0.101	<0.127	<0.300	1.49	<0.149	<0.118	0.807 J	<0.160	<0.234	<0.174
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.195	<4.06	<0.101	<0.127	0.399 J	<0.278	<0.149	<0.118	1.13	<0.160	<0.234	<0.174
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<4.88 UJ	<102 UJ	<2.53 UJ	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ	<4.35 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.706 J	<0.160	<0.234	<0.174
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.195	58.3 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.522 J	<0.160	<0.234	<0.174
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.575 J	<0.160	<0.234	<0.174
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.195	<4.06	<0.101	<0.127	<0.300	0.672 J	<0.149	<0.118	0.211 J	<0.160	<0.234	<0.174
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.195	12.7	<0.101	<0.127	<0.300	0.454 J	<0.149	<0.118	0.223 J	<0.160	<0.234	0.220 J
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.235 J	<0.160	<0.234	<0.174
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.195	7.15	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.204 J	<0.160	<0.234	<0.174
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.192 J	<0.160	<0.234	<0.174
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.195	38.4 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.195	5.42	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.883 J	<0.160	<0.234	<0.174
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	0.459 J	<0.278	<0.149	<0.118	1.23	<0.160	<0.234	<0.174
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<95.0	<8.00	<11.7	<8.70
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.195	14.9	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	1.28	<0.160	<0.234	<0.174
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.195	5.93	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	1.07	<0.160	<0.234	<0.174
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	0.320 J	<0.278	<0.149	<0.118	1.30	<0.160	<0.234	<0.174
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	1.21 J	<0.800	<1.17	<0.870
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.767 J	<0.160	<0.234	<0.174
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	1.02 J	<0.160	<0.234	<0.174
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<48.8	<1,020	<25.3	<31.8	<75.0	<69.5	<37.3	<29.5	<47.5	<40.0	<58.5	<43.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.609 J	<0.160	<0.234	<0.174
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	1.06	<0.160	<0.234	<0.174
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.222 J	<0.160	<0.234	<0.174
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	0.429 J	<0.278	<0.149	<0.118	0.414 J	<0.160	<0.234	<0.174
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.247 J	<0.160	<0.234	<0.174
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.223 J	<0.160	<0.234	<0.174
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	0.432 J	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.587 J	<0.160	<0.234	<0.174
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.195	5.74 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.208 J	<0.160	<0.234	<0.174
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.975	<20.3	<0.505	<0.635	<1.50	<13.9	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.195	<4.06	<0.101	<0.127	<0.300	0.285 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.195	4.28 J	<0.101	<0.127	<0.300	0.798 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.190 J	<0.160	<0.234	<0.174
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.195	5.59	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.805 J	<0.160	<0.234	<0.174
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.195	10.8	<0.101	<0.127	<0.300	0.375 J	<0.149	<0.118	0.225 J	<0.160	<0.234	<0.174
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.315 J	<0.160	<0.234	<0.174
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.920 J	<0.160	<0.234	<0.174
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.421 J	<0.160	<0.234	<0.174
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.195	6.34	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.543 J	<0.160	0.238 J	<0.174
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.492 J	<0.160	<0.234	<0.174
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.241 J	<0.160	<0.234	<0.174
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.216 J	<0.160	<0.234	<0.174
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.500 J	<0.160	<0.234	<0.174
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	0.354 J	<0.278	<0.149	<0.118	0.797 J	<0.160	<0.234	<0.174
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.693 J	<0.160	<0.234	<0.174
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	0.331 J	<0.278	<0.149	<0.118	0.592 J	<0.160	<0.234	<0.174
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.524 J	<0.160	<0.234	<0.174
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<9.75 UJ	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234	<0.174
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.195	<4.06	<0.101	<0.127	<0.300	0.332 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.195	5.95 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.369 J	<0.160	<0.234	<0.174
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234	<0.174
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.195	5.04 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.191 J	<0.160	<0.234	<0.174
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	0.557 J	<0.149	<0.118	<0.190	<0.160	<0.234	0.181 J
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	0.576 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.288 J	<0.160	<0.234	<0.174
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.195	<4.06	<0.101	<0.127	<0.300	4.23	<0.149	<0.118	0.220 J	<0.160	<0.234	<0.174
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	0.315 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.195	8.05	<0.101	<0.127	2.63	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.670 J	<0.160	<0.234	<0.174
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.584 J	<0.160	<0.234	<0.174
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	1.09	<0.160	<0.234	<0.174
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	0.486 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	0.531 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.195	6.37	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.904 J	<0.160	0.413 J	<0.174
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.195	5.48	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.466 J	<0.160	<0.234	<0.174
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.489 J	<0.160	<0.234	<0.174
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.329 J	<0.160	<0.234	<0.174
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.195	<4.06 UJ	<0.101	<0.127	0.405 J	<0.278	<0.149	<0.118	0.649 J	<0.160	<0.234	<0.174
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	1.64 J+	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.195	<4.06	<0.101	<0.127	<0.300	1.60 J+	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.195 J	<0.160	<0.234	<0.174
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.95 UJ	<40.6 UJ	<1.01 UJ	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ	<1.74 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	3.30	<0.149	<0.118	<0.190	<0.160	<0.234	0.326 J
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.95 UJ	<40.6 UJ	<1.01 UJ	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ	<1.74 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	6.13	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.195	<406	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.873 J	<0.160	<0.234	<0.174
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<4.88 UJ	<102 UJ	<2.53 UJ	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ	<4.35 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<3.90 UJ	<81.2 UJ	<2.02 UJ	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ	<3.48 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234	<0.174
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.195	5.22	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.875 J	<0.160 UJ	<0.234	<0.174
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.637 J	<0.160	<0.234	<0.174
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<39.0	<812	<20.2	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8	<34.8
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.194 J	<0.160	<0.234	<0.174
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.95	<40.6	<1.01	<1.27	95.7 J	3.30 J	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	1.82 J	<0.278	<0.149	<0.118	0.631 J	<0.160	<0.234	<0.174
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.472 J	<0.160	<0.234	<0.174
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.478 J	<0.160	<0.234	<0.174
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.275 J	<0.160	<0.234	<0.174
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.306 J	<0.160	<0.234	<0.174
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.362 J	<0.160	<0.234	<0.174
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.618 J	<0.160	<0.234	<0.174
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.680 J	<0.160	<0.234	<0.174
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.752 J	<0.160	<0.234	<0.174
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.684 J	<0.160	<0.234	<0.174
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.741 J	<0.160	<0.234	<0.174
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<19.5 UJ	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.975 UJ	<20.3 UJ	<0.505 UJ	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ	<0.870 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234	<0.174
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.192 J	<0.160	<0.234	<0.174
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<9.75	<203	<5.05	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7	<8.70
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.195	5.31	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.363 J	<0.160	<0.234	<0.174
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.314 J	<0.160	<0.234	<0.174
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.195	7.16	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.456 J	<0.160	<0.234	<0.174
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.95	<40.6	<1.01	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34	<1.74
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.195 UJ	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.195	4.13 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.291 J	<0.160	<0.234	<0.174
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	0.395 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	5.02	0.914 J	<0.149	<0.118	1.49	<0.160	<0.234	<0.174
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.975 UJ	<20.3 UJ	<0.505 UJ	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ	<0.870 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.295 J	<0.160	<0.234	<0.174
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.975 UJ	<20.3 UJ	<0.505 UJ	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ	<0.870 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.195	6.75	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.975 UJ	<20.3 UJ	<0.505 UJ	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ	<0.870 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.195	4.48 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.215 J	<0.160	<0.234	<0.174
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<3.90	<81.2	<2.02	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68	<3.48
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	61.9	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.534 J	<0.160	<0.234	<0.174
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.260 J	<0.160	<0.234	<0.174
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.418 J	<0.160	<0.234	<0.174
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.195	6.66 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.195	4.56 J	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.195 UJ	<4.06 UJ	<0.101 UJ	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ	<0.174 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174

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Table 5
Groundwater Analytical Results
Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.195	<4.06	<0.101	<0.127	<0.300	0.417 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-SLMW	11/10/2022	N	EM03	N/A	N/A	<0.975	<20.3	<0.505	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870
U4-T3	10/13/2022	N	EM02	N/A	N/A	<0.195	35.0 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.525 J	<0.160	<0.234	<0.174
U4-T3	11/3/2022	N	EM03	N/A	N/A	<0.195	<4.06	<0.101	<0.127	0.440 J	<0.278	<0.149	<0.118	0.746 J	<0.160	<0.234	<0.174
U4-T3	12/6/2022	N	EM04	N/A	N/A	<3.90 UJ	<81.2 UJ	<2.02 UJ	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ	<3.48 UJ
U4-T3	1/9/2023	N	EM05	N/A	N/A	<0.195	<4.06	<0.101	<0.127	0.353 J	<0.278	<0.149	<0.118	0.584 J	<0.160	<0.234	<0.174
U4-T3	2/13/2023	N	EM06	N/A	N/A	<19.5	<406	<10.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4	<17.4
U4-T3	3/13/2023	N	EM07	N/A	N/A	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35
U4-T3	4/19/2023	N	EM08	N/A	N/A	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.210 J	<0.160	<0.234	<0.174
U4-T3	5/18/2023	N	EM09	N/A	N/A	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.339 J	<0.160	<0.234	<0.174
U4-T3	6/12/2023	N	EM10	N/A	N/A	<0.195	7.68 J+	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.289 J	<0.160	<0.234	<0.174
U4-T3	7/11/2023	N	EM11	N/A	N/A	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	0.385 J	<0.160	<0.234	<0.174
U4-T3	8/10/2023	N	EM12	N/A	N/A	<0.195	<4.06	<0.101	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-T3	9/11/2023	N	EM13	N/A	N/A	<0.195	<4.06	<0.101	<0.127	<0.300	1.83	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174
U4-T3	10/16/2023	N	EM14	N/A	N/A	<4.88	<102	<2.53	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85	<4.35

Notes:
FD - Field duplicate
E - Field instrument error.
J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- - The result is an estimated quantity, but the result may be biased low.
J+ - The result is an estimated quantity, but the result may be biased high.
N/A - Not Applicable
mg/L - milligrams per liter
µg/L - micrograms per liter
N - Normal field sample
R - The data are 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.
UMCf- Upper Muddy Creek Formation
< - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
-- Not tested.
M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.