

TECHNICAL MEMORANDUM

To: Nevada Environmental Response Trust

Cc: Nevada Division of Environmental Protection
United States Environmental Protection Agency

From: Chris Hayes

Date: July 28, 2022

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 June 2022 toward successfully implementing the Unit 4 Source Area In-Situ Bioremediation (ISB) Treatability Study.

Task Progress Update: June 2022

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 **Table 1**. The following activities were completed during June 2022 as part of the design and implementation:
 - Road paving was completed on June 21, 2022. Gate installation is ongoing and anticipated to be completed in July 2022.
 - On-site installation of the injection/extraction system began in June 2022 and is anticipated to be completed in July 2022.
 - Baseline groundwater sampling results were received in late May 2022. Draft unvalidated analytical results are provided on **Table 2**. Results from this sampling event were generally consistent with previous results. In general, the results from both the intermediate and deep zone in Area 1 are similar to previous sampling events. Groundwater results for total dissolved solids (TDS) within Area 2 deep were higher than anticipated in some areas. However, the average TDS concentration in the deep groundwater within Area 2 is approximately 19,500 milligrams per liter (mg/L), which is below the 21,000 mg/L target upper limit for TDS. Therefore, conditions in the deep groundwater in Area 2 support moving forward with ISB without necessitating an initial TDS reduction step, and continue to represent conditions that are generally different than deep groundwater within Area 1, where the average TDS concentration of approximately 31,000 mg/L will require TDS reduction prior to ISB treatment. The reported concentrations of perchlorate, chlorate, chromium, and chloroform from the Area 2 intermediate and deep wells are higher than

projected in the Unit 4 Source Area ISB Treatability Study Work Plan Addendum in select locations but are within the range of concentrations that were treated during bench-scale laboratory testing.

- Schedule and Progress Updates
 - Automatic gate installation is scheduled to be completed in July 2022.
 - The injection/extraction system initial startup and testing phase is tentatively scheduled for August 2022. Upon completion of the start-up and completion of initial system testing, the treatability study can begin with extraction operations in Area 1 for initial total dissolved solids (TDS) reduction and injection/extraction operations associated with implementation of ISB in Area 2. Although startup is tentatively scheduled to begin in August 2022, timing will depend on the readiness status of the Chromium Treatment Subsystem.
- Health and Safety
 - There were no health and safety incidents related to Task M21 during June 2022.

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, 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: 7/28/22

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.



David S. Wilson, CEM

Principal Engineer

Tetra Tech, Inc.

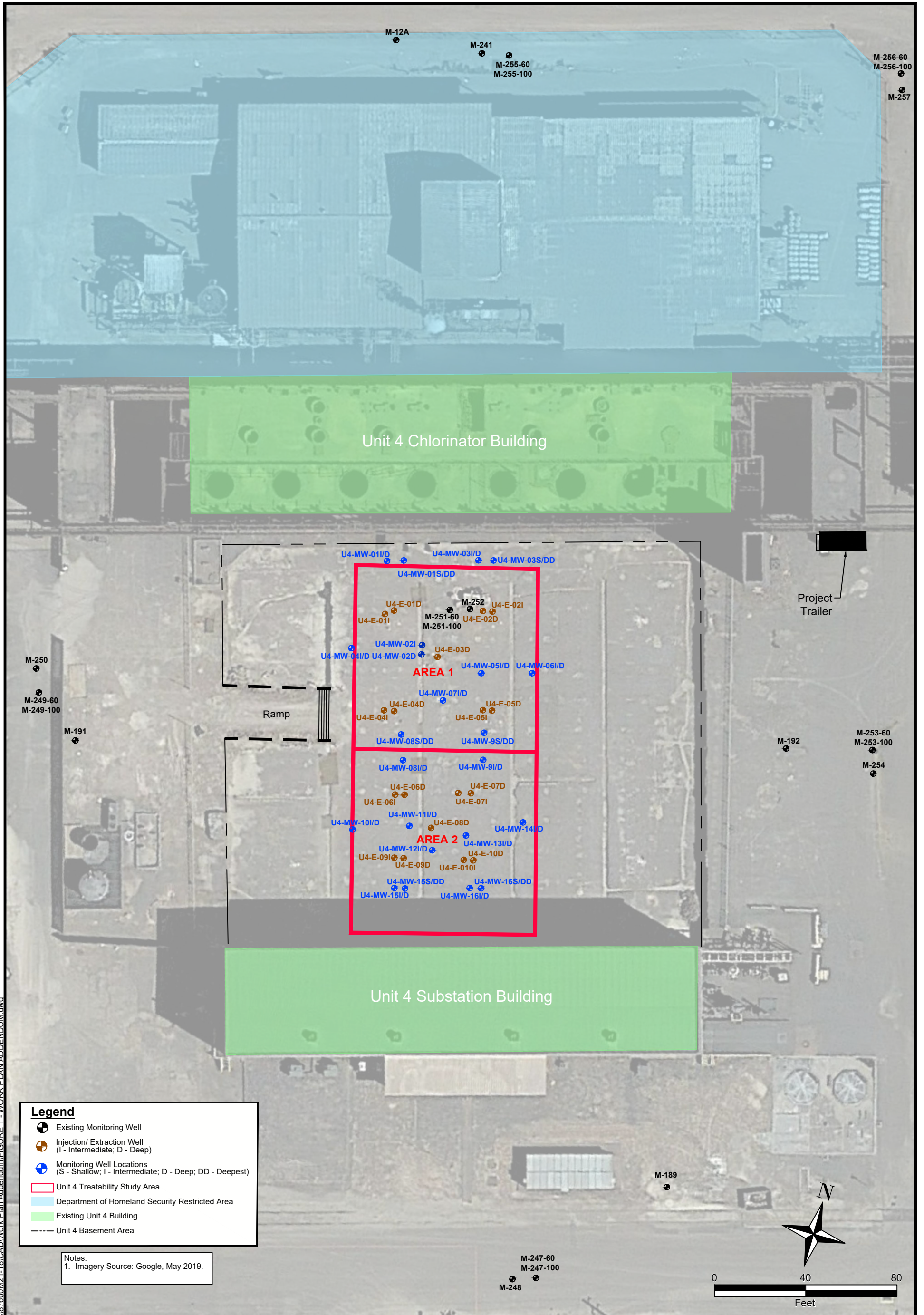
Nevada CEM Certificate Number: 2385

Nevada CEM Expiration Date: September 19, 2022

July 28, 2022

Date

Figures



Legend

- Existing Monitoring Well
- ⊕ Injection/ Extraction Well (I - Intermediate, D - Deep)
- ⊕ Monitoring Well Locations (S - Shallow; I - Intermediate; D - Deep; DD - Deepest)
- ▭ Unit 4 Treatability Study Area
- ▭ Department of Homeland Security Restricted Area
- ▭ Existing Unit 4 Building
- Unit 4 Basement Area

Notes:
1. Imagery Source: Google, May 2019.

NEVADA ENVIRONMENTAL RESPONSE TRUST SITE

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

INJECTION/ EXTRACTION AND MONITORING WELL LAYOUT

TETRA TECH

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Phone: (702) 854-2293

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

Figure No.
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\\its318fs3.tl.local\CES\Projects\87600\M21-18\CAD\Work Plan Addendum\FIGURE 1 - WORK PLAN ADDENDUM.dwg

Tables

Table 1
Phase 2 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 bgs ¹	feet bgs ¹	feet bgs ¹	feet bgs ¹
U4-E-03D	UMCf	26717310.37	828241.13	1805.49	1804.94	Single	Schedule 80 PVC	Stainless Steel Wire-Wrap	0.010	#2/16	8	113.0	4	15	111.1	110.1	95.1
U4-E-06D	UMCf	26717253.44	828232.43	1805.44	1804.74	Single	Schedule 80 PVC	Stainless Steel Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	0.010	#2/16			2	10	129.9	129.9	119.9
U4-MW-03I	UMCf	26717359.79	828248.76	1805.61	1805.17	Dual-Nested	Schedule 80 PVC	Stainless Steel Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	0.010	#2/16			2	10	106.5	106.5	86.8
U4-MW-08I	UMCf	26717268.25	828229.36	1805.45	1804.97	Dual-Nested	Schedule 80 PVC	Stainless Steel Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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 Wire-Wrap	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.

Table 2
Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	Anions by E300.0	Anions by E300.0	Anions by E300.0	E350.1	E351.2	E365.1	FIELD TESTS			
						Perchlorate	Chlorate	Chlorite	Chloride	Nitrate (as N)	Sulfate	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Dissolved Phosphorus	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	3,080	12,800	----	----	----	----	----	----	----	0.956	1.80	0.0 U	22.9
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	2,850,000	26,900,000	----	----	----	----	----	----	----	34.552	0.56	0.0 U	140.6
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	----	----	----	42.112	1.63	0.0 U	212.1
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	----	----	----	5.163	5.64	0.0 U	44.4
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	91,200	381,000	<2,400	259,000	2,440	180,000	----	----	----	2.053	5.66	0.0 U	142.6
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	457,000	505,000	----	----	----	----	----	----	----	2.393	3.04	0.0 U	36.4
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	75,100	564,000	----	----	----	----	----	----	----	2.198	1.87	0.0 U	175.7
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	----	----	----	42.734	0.85	0.0 U	167.3
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	----	----	----	0.072	9.17	0.0 U	120.6
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-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	----	----	----	9.255	0.62	0.0 U	129.9
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	----	----	----	9.309	4.25	0.0 U	190.6
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	----	----	----	36.139	0.68	0.0 U	96.0
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	----	----	----	22.249	1.29	0.0 U	34.2
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	----	----	----	4.524	0.84	0.0 U	-18.2
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	----	----	----	26.037	3.43	0.0 U	177.7
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	----	----	----	5.209	0.59	0.0 U	101.8
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	943,000	12,700,000	----	----	28,800 J-	----	----	----	----	20.541	1.78	----	176.4
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	320,000	4,550,000	<24000 R	1,150,000	12,200	214,000	<117	<1,400	33.3 R	9.911	2.39	0.0 U	138.8
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	313,000	5,670,000	----	----	17,200	----	----	----	----	11.610	2.84	----	173.8
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	307,000	5,270,000	----	----	17,200	----	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	36,400	660,000	<2,400	355,000	3,550	1,220,000	<117	<700	33.3 R	4.282	2.10	0.0 U	128.1
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	35,900	553,000	<12,000	345,000	3,660	1,300,000	<117	<700	33.3 R	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,700,000	18,500,000	<240,000	3,780,000	56,100	965,000	<117	<7,000	<33.3	28.599	1.02	0.0 U	134.9
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	301,000	4,470,000	<24,000	723,000	10,200	1,120,000	<117	<7,000	194 J+	6.791	2.78	0.0 U	164.9
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,570,000	20,600,000	<240,000	4,180,000	63,500	948,000	<117	<7,000	<33.3	31.747	1.11	0.0 U	185.4
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	464,000	7,850,000	<24,000	1,710,000	19,200	475,000	<117	<3,500	<33.3	16.373	1.12	0.0 U	131.3
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	130,000	2,210,000	<24,000	638,000	9,440	1,100,000	<117	<1,400	52.3 J	6.980	5.93	0.0 U	42.3
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	924,000	7,540,000	----	----	19,900	----	----	----	----	11.514	3.44	----	188.9
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	412,000	3,430,000	<24,000	895,000	11,200	550,000	<117	<1,400	33.3 R	8.624	0.77	0.0 U	200.4
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	1,260,000	8,480,000	----	----	24,400	----	----	----	----	16.621	2.05	----	182.9
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	407,000	3,550,000	<24,000	911,000	10,400	711,000	<117	<1,400	33.3 R	9.367	1.04	0.0 U	223.7
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	----	----	----	11.556	0.72	0.0 U	130.5
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	29,800	217,000	<2,400	191,000	230	214,000	----	----	----	1.873	0.81	0.0 U	70.8
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-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	410,000	3,510,000	<24,000	920,000	5,610	590,000	----	----	----	9.209	0.67	0.0 U	103.3
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	----	----	----	4.903	4.81	0.0 U	99.5
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	----	----	----	47.936	0.74	0.0 U	206.4
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	----	----	----	8.827	3.75	0.0 U	159.8
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	----	----	----	19.006	2.71	0.0 U	209.7
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	----	----	----	2.756	1.07	0.0 U	220.6
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	----	----	----	6.055	1.28	0.0 U	57.0
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	----	----	----	4.716	9.18	0.0 U	105.4
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-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	----	----	----	50.188	0.90	0.0 U	76.7
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	----	----	----	22.833	0.68	0.0 U	49.8

Table 2
Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	Anions by E300.0	Anions by E300.0	Anions by E300.0	E350.1	E351.2	E365.1	FIELD TESTS			
						Perchlorate	Chlorate	Chlorite	Chloride	Nitrate (as N)	Sulfate	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Dissolved Phosphorus	Conductivity	Dissolved Oxygen	Ferrous Iron	Oxidation-Reduction Potential
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L	mg/L	mV
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	----	----	----	39.740	0.77	0.0 U	146.1
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	----	----	----	20.080	0.87	0.0 U	140.1
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	----	----	----	----	----	0.0 U	----
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	----	----	----	6.356	0.75	0.0 U	132.2
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	471,000	5,210,000	<24,000	1,260,000	13,500	568,000	----	----	----	10.924	4.48	0.0 U	182.2
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	----	----	----	5.556	0.59	0.0 U	158.2
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	1,640,000	2,450,000	<24,000	4,960,000	71,400	1,130,000	<117	<2,800	68.2 J	43.677	1.07	0.0 U	166.4
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	25,700	281,000	<2,400	213,000	1,520	210,000	<117	<140	146 J+	1.774	0.95	0.0 U	5.0
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	23,800	294,000	<2,400	227,000	1,610	230,000	<117	<140	133 J	----	----	----	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	152,000	2,550,000	<24,000	768,000	7,610	1,160,000	<117	<700	55.5 J	8.786	1.97	0.0 U	183.3
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	11,600	154,000	<2,400	227,000	3,430	1,280,000	<117	<140	<33.3	3.391	3.42	0.0 U	79.6
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	1,770,000	14,600,000	<240,000	3,270,000	43,200	877,000	<117	<1,400	58.0 J	25.834	1.79	0.0 U	36.4
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	25,200	110,000	<2,400	172,000	1,060	178,000	<117	<140	84.5 J	----	----	----	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	78,700	439,000	<2,400	242,000	3,120	1,100,000	<117	<140	120 J+	3.354	10.37	0.0 U	8.8
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	14,800	91,400	<2,400	182,000	2,260	964,000	<117	<140	76.5 J	----	----	----	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	118,000	2,180,000	<24,000	706,000	4,090	340,000	<117	<700	<33.3	5.411	0.91	0.0 U	206.3
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	141,000	2,330,000	<24,000	936,000	8,520	1,300,000	<117	<1,400	65.7 J	7.650	0.90	0.0 U	183.9
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	1,290,000	20,100,000	<240,000	4,040,000	62,300	880,000	<117	<3,500	71.7 J	31.458	0.75	0.0 U	194.9
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	98,700	1,550,000	<24000 R	512,000	7,100	1,080,000	<117	<1,400	210 J+	7.803	1.01	0.0 U	123.8
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	1,280,000	14,400,000	<24,000	3,380,000	61,000	1,130,000	<117	<3,500	67.4 J	32.048	0.90	0.0 U	90.8
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	424,000	4,000,000	<24,000	967,000	7,700	1,230,000	<117	<1,400	68.0 J	11.234	1.32	----	35.2
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	420,000	3,920,000	<24,000	968,000	8,310	1,220,000	<117	<1,400	104 J+	----	----	----	----
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	1,330,000	14,700,000	<240,000	3,130,000	60,700	662,000	<117	<1,400	115 J+	32.518	0.90	0.0 U	136.1
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	418,000	4,180,000	<24,000	943,000	7,030	1,090,000	<117	<1,400	109 J+	11.607	2.38	0.0 U	127.9
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	140,000	462,000	<12,000	349,000	729 J	2,560,000	<117	<140	33.3 R	5.770	0.87	0.0 U	161.5
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	181,000	506,000	<2,400	274,000	2,490	1,410,000	<117	<140	173 J+	5.720	0.77	0.0 U	110.5
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	141,000	2,400,000	<24,000	749,000	3,170	410,000	<117	<700	63.7 J	5.015	1.02	0.0 U	209.2
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	1,380	19,700	<2,400	152,000	878	214,000	<117	<140	<33.3	0.999	2.14	0.0 U	123.8
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	86,400	1,190,000	<24,000	420,000	5,590	1,070,000	<117	<140	85.9 J	5.348	1.45	0.0 U	125.1
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	3,800	36,100	<24.0	178,000	2,750	1,190,000	<117	<140	74.6 J	2.466	5.73	0.0 U	165.2
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	1,670,000	15,000,000	<240,000	3,030,000	39,300	722,000	<117	<2,800	33.3 R	27.119	4.03	0.0 U	165.2
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	77,900	396,000	<240	229,000	569	623,000	<117	<140	87.1 J	2.380	1.10	0.0 U	121.7
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	366,000	1,820,000	<24,000	546,000	6,600	979,000	<117	<700	33.3 R	6.673	8.63	0.0 U	129.8
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	9,400	64,100	<240	173,000	2,700	1,150,000	<117	<140	<33.3	2.712	4.29	0.0 U	136.6
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	9,860	64,100	<240	171,000	2,850	1,140,000	<117	<140	33.3 R	----	----	----	----

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS					RSK175			SM2320B				SM2540C
						pH	Purge Rate	Sulfide	Temperature	Turbidity	Ethane	Ethene	Methane	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Total Dissolved Solids
						ft bgs	SU	mL/min	mg/L	C	NTU	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	8.02	190	0.0 U	26.9	22.0	----	----	----	----	----	----	----	712,000
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	6.99	120	0.0 U	27.5	60.6	----	----	----	----	----	----	----	54,000,000
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	7.36	100	0.0 U	26.3	17.1	----	----	----	----	----	----	----	39,900,000
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	10.69	100	0.0 U	30.5	18.3	----	----	----	----	----	----	----	2,330,000 J
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	8.13	100	0.0 U	29.6	9.9	----	----	----	----	----	----	----	1,410,000
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	8.03	60	0.0 U	25.2	21.0	----	----	----	----	----	----	----	2,130,000
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	7.89	100	0.0 U	25.1	12.0	----	----	----	----	----	----	----	1,600,000
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	7.78	100	0.0 U	26.2	8.7	----	----	----	----	----	----	----	43,600,000
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	8.70	100	0.0 U	26.5	2.7	----	----	----	----	----	----	----	4,770,000 J
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----	----	----	----	----	2,770,000 J
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	7.36	130	0.0 U	27.0	2.0	----	----	----	----	----	----	----	10,800,000
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	8.46	105	0.0 U	24.6	9.8	----	----	----	----	----	----	----	4,130,000
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	7.14	200	0.0 U	28.6	33.2	----	----	----	----	----	----	----	34,400,000
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	7.19	70	0.0 U	25.5	15.1	----	----	----	----	----	----	----	24,000,000
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	8.40	70	0.0 U	27.4	28.9	----	----	----	----	----	----	----	3,430,000
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	7.33	100	0.0 U	28.8	45.2	----	----	----	----	----	----	----	28,400,000
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	8.45	100	0.0 U	28.4	10.5	----	----	----	----	----	----	----	4,070,000
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	7.47	120	----	23.7	19.2	----	----	----	----	----	----	----	22,400,000
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	7.24	90	0.0 U	23.5	37.2	<4.07	<4.26	<2.91	68,700	68,700	<8,450	<8,450	9,590,000
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	7.38	120	----	23.2	9.0	----	----	----	----	----	----	----	10,800,000
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	10,800,000
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	7.47	90	0.0 U	25.8	11.6	<4.07	<4.26	<2.91	96,800	96,800	<8,450	<8,450	3,220,000
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	----	----	----	<4.07	<4.26	<2.91	96,100	96,100	<8,450	<8,450	3,150,000
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	7.20	100	0.0 U	18.5	16.0	<4.07	<4.26	<2.91	120,000	----	----	----	37,900,000
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	8.12	100	0.0 U	20.2	2.8	<4.07	<4.26	<2.91	179,000	----	----	----	6,860,000
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	7.17	100	0.0 U	20.2	3.6	<4.07	<4.26	<2.91	131,000	----	----	----	39,500,000
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	7.20	100	0.0 U	26.7	5.2	<4.07	<4.26	<2.91	76,100	76,100	<8,450	<8,450	7,500,000
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	7.51	100	0.0 U	25.0	53.8	<4.07	<4.26	<2.91	105,000	105,000	<8,450	<8,450	5,550,000
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	8.04	100	----	20.5	9.8	----	----	----	----	----	----	----	15,600,000
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	8.07	100	0.0 U	23.0	13.1	<4.07	<4.26	<2.91	59,100	51,600	<8,450	<8,450	3,940,000
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	7.33	120	----	23.6	71.2	----	----	----	----	----	----	----	17,900,000
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	7.20	100	0.0 U	21.6	17.0	<4.07	<4.26	<2.91	114,000	114,000	<8,450	<8,450	3,690,000
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	7.14	130	0.0 U	30.0	7.9	----	----	----	----	----	----	----	7,230,000
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	7.75	100	0.0 U	33.3	27.7	----	----	----	----	----	----	----	1,040,000
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----	----	----	----	----	1,020,000
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	7.70	220	0.0 U	27.3	60.1	----	----	----	----	----	----	----	3,790,000
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	8.75	220	0.0 U	27.6	1501.7	----	----	----	----	----	----	----	3,130,000
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	7.25	100	0.0 U	26.4	5.4	----	----	----	----	----	----	----	63,700,000
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	8.09	100	0.0 U	28.4	15.2	----	----	----	----	----	----	----	6,660,000
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	7.29	100	0.0 U	26.7	31.0	----	----	----	----	----	----	----	23,000,000
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	7.54	100	0.0 U	26.3	24.2	----	----	----	----	----	----	----	2,070,000
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	8.02	60	0.0 U	30.2	8489.8	----	----	----	----	----	----	----	2,350,000
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	9.74	195	0.0 U	27.3	38.0	----	----	----	----	----	----	----	2,890,000
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----	----	----	----	----	2,190,000 J-
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	7.01	200	0.0 U	30.1	18.0	----	----	----	----	----	----	----	56,100,000
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	7.36	100	0.0 U	27.6	78.2	----	----	----	----	----	----	----	22,500,000

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS					RSK175			SM2320B				SM2540C
						pH	Purge Rate	Sulfide	Temperature	Turbidity	Ethane	Ethene	Methane	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Total Dissolved Solids
						ft bgs	SU	mL/min	mg/L	C	NTU	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	7.03	100	0.0 U	28.3	39.5	----	----	----	----	----	----	----	27,800,000
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	7.54	100	0.0 U	23.2	2057.3	----	----	----	----	----	----	----	12,900,000
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	0.0 U	----	----	----	----	----	----	----	----	----	43,400,000
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	8.14	100	0.0 U	27.5	171.5	----	----	----	----	----	----	----	3,420,000
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	7.48	100	0.0 U	26.7	52.5	----	----	----	----	----	----	----	5,820,000
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	7.86	100	0.0 U	25.6	10.7	----	----	----	----	----	----	----	1,670,000
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	6.92	100	0.0 U	24.7	98.8 E	<4.07	<4.26	<2.91	184,000	184,000	<8,450	<8,450	48,000,000
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	7.70	70	0.0 U	24.6	62.4	<4.07	<4.26	<2.91	89,800	89,800	<8,450	<8,450	1,240,000
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	<4.07	<4.26	<2.91	84,300	84,300	<8,450	<8,450	1,220,000
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	7.71	100	0.0 U	22.8	-5857914.0 E	<4.07	<4.26	<2.91	175,000	166,000	9,060 J	<8,450	3,380,000
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	9.96	285	0.0 U	27.1	55.4	<4.07	<4.26	<2.91	57,500	15,500 J	42,000	<8,450	1,970,000
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	7.03	100	0.0 U	24.3	640.2	<4.07	<4.26	<2.91	179,000	179,000	<8,450	<8,450	30,000,000
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	<4.07	<4.26	<2.91	98,100	91,300	<8,450	<8,450	759,000 J
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	7.57	120	0.0 U	24.5	322.6	<4.07	<4.26	<2.91	109,000	109,000	<8,450	<8,450	2,030,000
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	----	----	----	----	----	<4.07	<4.26	<2.91	141,000	123,000	17,900 J	<8,450	1,900,000
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	7.33	100	0.0 U	22.6	52.9	<4.07	<4.26	<2.91	93,000	93,000	<8,450	<8,450	4,840,000
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	7.68	100	0.0 U	23.9	72915.5	<4.07	<4.26	<2.91	187,000	187,000	<8,450	<8,450	5,670,000
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	7.12	100	0.0 U	23.3	218.4	<4.07	<4.26	<2.91	201,000	201,000	<8,450	<8,450	34,200,000
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	7.72	110	0.0 U	26.3	99.8	<4.07	<4.26	<2.91	96,300	92,500	<8,450	<8,450	2,730,000
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	6.98	100	0.0 U	26.2	40.3	<4.07	<4.26	<2.91	138,000	138,000	<8,450	<8,450	29,700,000
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	7.74	100	----	26.1	988.9	<4.07	<4.26	<2.91	147,000	147,000	<8,450	<8,450	8,680,000
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	<4.07	<4.26	<2.91	139,000	139,000	<8,450	<8,450	8,670,000
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	6.94	100	0.0 U	25.2	85.7	<4.07	<4.26	<2.91	128,000	128,000	<8,450	<8,450	30,300,000
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	7.42	100	0.0 U	23.7	2478.1	<4.07	<4.26	<2.91	116,000	116,000	<8,450	<8,450	8,680,000
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	7.20	100	0.0 U	26.5	50.4	<4.07	<4.26	<2.91	101,000	101,000	<8,450	<8,450	2,550,000
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	8.07	150	0.0 U	22.8	57.4	<4.07	<4.26	<2.91	77,600	70,500	<8,450	<8,450	3,220,000
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	7.09	100	0.0 U	20.7	76.6	<4.07	<4.26	<2.91	112,000	112,000	<8,450	<8,450	3,490,000
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	8.36	100	0.0 U	18.6	82.3	<4.07	<4.26	<2.91	108,000	100,000	<8,450	<8,450	677,000
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	7.95	150	0.0 U	22.6	20895.7 E	<4.07	<4.26	<2.91	233,000	----	----	----	4,080,000
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	8.11	200	0.0 U	21.5	71.7	<4.07	<4.26	<2.91	100,000	100,000	<8,450	<8,450	1,450,000
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	7.15	100	0.0 U	23.7	84.8 E	<4.07	<4.26	<2.91	119,000	119,000	<8,450	<8,450	30,500,000
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	7.62	100	0.0 U	18.3	35.4	<4.07	<4.26	<2.91	94,500	----	----	----	1,940,000
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	8.36	200	0.0 U	23.5	-449448.0 E	<4.07	<4.26	<2.91	60,000	42,800	17,200 J	<8,450	5,220,000
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	8.80	200	0.0 U	22.3	-8.5	<4.07	8.07 J	19.8	64,800	----	----	----	1,990,000
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	----	----	----	<4.07	<4.26	<2.91	64,400	----	----	----	2,000,000

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	SM5310B	Dissolved Metals by SW6010B											
						Total Organic Carbon	Aluminum	Barium	Beryllium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Phosphorus	Potassium
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	1,410 J+	----	----	----	----	----	----	----	----	----	----	----	----
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	1,590 J+	----	----	----	----	----	----	----	----	----	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	520 J	----	----	----	----	----	----	----	----	----	----	----	----
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	1,030 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	2,420 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	2,670 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	1,540 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	1,240 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	1,660 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,380 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	863 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,070 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	1,110 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	605 J	81.0 J	187 J	<0.330	515,000 J	11,900 J	<0.840	<18.0	255,000 J	19.9	3.31 J	25.3 J	32,800 J
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	863 J	87.1 J	34.2	<0.330	223,000	2,270	<0.840	<18.0	88,400	8.86 J	13.6	45.1 J	23,300
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	909 J	68.8 J	33.8	<0.330	222,000	2,260	<0.840	<18.0	87,900	8.46 J	13.9	46.2 J	23,200
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	3,200 J	<280	135	<1.65	1,450,000	79,000	<4.20	<90.0	634,000	22.5 J	8.85 J	<91.5	74,800
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	2,760 J	117 J	29.6 J+	<0.330	157,000	15,100	<0.840	<18.0	66,000	8.86 J	18.0	194 J	23,400
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	3,170 J	<280	143	<1.65	1,670,000	92,600	<4.20	<90.0	737,000	54.7	10.2 J	<91.5	82,200
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	875 J	106 J	106	<0.330	832,000	27,200	<0.840	18.8 J	360,000	23.2	<5.80	172 J	46,900
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	1,280 J	<56.1	27.1	<0.330	215,000	9,660	<0.840	<18.0	91,600	21.6	13.2	199 J	25,300
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	766 J	102 J	112	<0.330	436,000	9,680	<0.840	<18.0	165,000	7.51 J	8.19	34.0 J	29,700
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	1,790 J	115 J	34.7	<0.330	307,000	16,100	<0.840	<18.0	133,000	7.93 J	11.6	<18.3	26,000
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	952 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	1,120 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	1,080 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	1,160 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	972 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	1,570 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	1,100 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	964 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	999 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	3,300 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	1,200 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	1,320 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	7,260 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	1,530 J+	----	----	----	----	----	----	----	----	----	----	----	----

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	SM5310B	Dissolved Metals by SW6010B											
						Total Organic Carbon	Aluminum	Barium	Beryllium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Phosphorus	Potassium
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	1,710 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	1,460 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	1,350 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	1,190 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	631 J	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	2,760 J+	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	3,420 J	<280	144	<1.65	1,610,000	112,000	<4.20	<90.0	707,000	37.2 J	11.9 J	<91.5	102,000
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	670 J	<56.1	19.0	<0.330	58,200	764	<0.840	<18.0	28,400	14.7	9.57	110 J	11,000
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	672 J	<56.1	19.2	<0.330	58,000	780	<0.840	<18.0	28,400	14.6	9.89	107 J	11,100
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	1,740 J	92.7 J	20.6	<0.330	107,000	8,950	<0.840	<18.0	44,400	5.20 J	18.7	25.4 J	23,000
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	1,190 J+	<56.1	25.0	<0.330	165,000	519	<0.840	26.0 J	3,570	<0.934	20.1	<18.3	20,400
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	1,590 J	<56.1	14.2	<0.330	123,000	5,930	<0.840	<18.0	532,000	4.62 J	<1.16	<18.3	6,610
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	493 J	<56.1	27.6	<0.330	41,300	154	<0.840	18.0 J	20,000	7.39 J	9.61	221 J	7,460
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	1,090 J+	<56.1	16.6	<0.330	114,000	2,350	<0.840	<18.0	42,300	4.58 J	13.2	172 J	19,300
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	892 J	<56.1	17.5	<0.330	72,400	398	<0.840	141	30,200	5.72 J	19.0	168 J	14,000
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	1,020 J+	<56.1	58.7	<0.330	275,000	5,290	<0.840	<18.0	134,000	23.5	8.67	32.2 J	24,200
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	1,200 J+	<56.1	35.2	<0.330	278,000	5,960	<0.840	27.9 J	135,000	25.2	17.8	194 J	31,700
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	3,440 J+	<280	151	<1.65	1,530,000	92,800	<4.20	<90.0	652,000	68.0	17.8 J	315 J	86,800
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	1,040 J+	<56.1	24.6	<0.330	161,000	6,040	<0.840	40.5 J	47,100	10.4	18.7	202 J	26,900
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	1,440 J+	115 J	115	<0.330	1,230,000	72,500	<4.20	92.3 J	501,000	59.4	15.8 J	365 J	83,300
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	1,630 J	<56.1	48.2	<0.330	317,000	17,200	<0.840	18.3 J	126,000	44.1	17.6	122 J	35,700
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	1,930 J	61.1 J	47.3	<0.330	314,000	16,700	<0.840	41.4 J	125,000	44.4	17.7	265 J+	35,500
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	1,640 J	375 J	173	<1.65	1,520,000	55,300	<4.20	<90.0	664,000	32.9 J	9.95 J	140 J	71,200
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	1,080 J+	<56.1	43.5	<0.330	395,000	20,300	<0.840	<18.0	169,000	28.6	13.8	132 J	33,100
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	1,220 J+	<56.1	33.5	<0.330	561,000	308	<0.840	<18.0	152,000	79.2	41.2	<18.3	25,400
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	1,090 J+	<56.1	23.1	<0.330	237,000	2,150	<0.840	<18.0	52,400	19.0	16.2	191 J	25,400
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	1,240 J	149 J	56.0	<0.330	338,000	4,940	<0.840	21.8 J	157,000	26.1	9.77	<18.3	25,500
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	532 J	<56.1	21.3	<0.330	34,000	64.4	<0.840	162	15,400	2.57 J	10.4	<18.3	6,830
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	1,440 J	<56.1	20.5 J+	<0.330	127,000	5,510	<0.840	24.4 J	56,500	14.9	17.8	25.2 J	22,300
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	848 J	112 J	21.0	<0.330	166,000 J	268 J	<0.840	95.9 J	50,100 J	2.61 J	19.2	50.3 J	15,200 J
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	1,340 J	<56.1	191	<0.330	474,000	12,600	<0.840	<18.0	240,000	12.4	4.62 J	<18.3	30,600
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	827 J	<56.1	24.7 J+	<0.330	114,000	922	<0.840	25.5 J	48,200	11.0	13.8	<18.3	12,500
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	950 J	<56.1	38.6	<0.330	231,000	8,620	<0.840	<18.0	76,200	2.20 J	13.7	<18.3	30,800
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	1,070 J+	<56.1	22.2 J+	<0.330	169,000	427	<0.840	<18.0	37,500	2.69 J	18.3	28.9 J	18,500
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	931 J	<56.1	22.5 J+	<0.330	168,000	426	<0.840	<18.0	37,700	2.07 J	18.4	25.5 J	18,300

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6020												
						Sodium	Vanadium	Antimony	Arsenic	Cadmium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Uranium	Zinc
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	----	----	----	----	----	----	----	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	----	----	----	----	----	----	----	----	----	----
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	----	----	----	----	----	----	----	----	----	----	----	----	----
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-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	1,310,000	<4.99	<1.03	5.21	<0.150	<1.51	<0.849	5.53	2.53	<0.0700	<0.121	5.59	5.24 J
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	624,000	17.4 J	<1.03	32.9	<0.150	2.20 J	<0.849	<0.816	2.37	<0.0700	<0.121	7.83	4.73 J
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	622,000	15.5 J	<1.03	32.6	<0.150	3.02 J	<0.849	<0.816	2.53	<0.0700	<0.121	7.85	5.71 J
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	5,760,000	<25.0	<10.3	12.2 J	<1.50	<15.1	<8.49	<8.16	9.10 J	<0.700	<1.21	5.33 J	<30.2
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	1,610,000	45.7	1.17 J	72.5	<0.150	2.99 J	<0.849	1.14 J	3.34	<0.0700	<0.121	9.05	3.42 J
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	6,200,000	<25.0	<10.3	5.36 J	<1.50	<15.1	<8.49	<8.16	7.15 J	<0.700	<1.21	7.00 J	<30.2
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	1,840,000	7.06 J	<10.3	9.35 J	<1.50	<15.1	<8.49	<8.16	3.01 J	<0.700	<1.21	5.49 J	<30.2
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	1,100,000	16.8 J	1.07 J	30.8	<0.150	6.53	<0.849	2.61	2.47	<0.0700	<0.121	9.29	3.75 J
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	1,120,000	6.53 J	<1.03	6.71	<0.150	<1.51	<0.849	20.5	2.51	<0.0700	<0.121	1.64	<3.02
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	1,410,000	14.5 J	<1.03	19.6	<0.150	4.02 J	<0.849	2.29	2.58	<0.0700	<0.121	10.6	7.05 J
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----	----	----	----	----	----
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-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----
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-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6020												
						Sodium	Vanadium	Antimony	Arsenic	Cadmium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Uranium	Zinc
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----	----	----	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	7,950,000	<25.0	<10.3	10.8 J	<1.50	<15.1	<8.49	<8.16	7.61 J	<0.700	<1.21	10.1	<30.2
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	258,000	10.4 J	<1.03	10.9	<0.150	<1.51	<0.849	1.49 J	2.68	<0.0700	<0.121	3.24	<3.02
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	258,000	9.34 J	<1.03	11.1	<0.150	<1.51	<0.849	1.44 J	2.31	<0.0700	<0.121	3.20	<3.02
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	1,300,000	23.5	<1.03	43.1	<0.150	1.90 J	<0.849	0.820 J	2.69	<0.0700	<0.121	6.55	3.30 J
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	580,000	47.5	<1.03	14.5	<0.150	<1.51	<0.849	<0.816	2.19	<0.0700	<0.121	0.591 J	<3.02
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	475,000	<4.99	<10.3	7.44 J	<1.50	<15.1	<8.49	<8.16	3.90 J	<0.700	<1.21	10.2	165 J
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	181,000	9.16 J	<1.03	10.2	<0.150	3.53 J	<0.849	<0.816	1.98 J	<0.0700	<0.121	2.98	3.03 J
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	588,000	19.1 J	<1.03	24.8	<0.150	2.16 J	<0.849	0.971 J	2.24	<0.0700	<0.121	5.48	<3.02
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	461,000	36.3	<1.03	46.2	<0.150	1.69 J	<0.849	<0.816	2.13	<0.0700	<0.121	6.57	<3.02
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	626,000	8.78 J	<1.03	8.78	<0.150	<1.51	<0.849	<0.816	2.14	<0.0700	<0.121	9.13	3.53 J
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	995,000	9.70 J	<1.03	12.6	0.369 J	2.97 J	<0.849	1.08 J	2.88	<0.0700	0.490 J	6.45	4.88 J
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	5,920,000	<25.0	<10.3	6.16 J	<1.50	<15.1	<8.49	<8.16	6.05 J	<0.700	<1.21	5.93 J	<30.2
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	924,000	14.2 J	<1.03	17.5	<0.150	1.60 J	<0.849	1.07 J	2.57	<0.0700	<0.121	3.18	<3.02
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	4,920,000	<4.99	<10.3	6.66 J	<1.50	<15.1	<8.49	<8.16	6.13 J	<0.700	<1.21	10.8	<30.2
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	1,720,000	9.09 J	3.92 J	14.6	2.51 J	3.24 J	2.29	4.10 J	5.65 J	0.454 J	2.39	9.47	<3.02
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	1,690,000	6.67 J	1.29 J	12.6	<0.150 UJ	2.11 J	<0.849	1.90 J	3.39 J	<0.0700	<0.121	7.29	<3.02
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	3,990,000	<25.0	<10.3	5.43 J	<1.50	<15.1	<8.49	<8.16	4.11 J	<0.700	<1.21	10.8	<30.2
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	1,640,000	9.14 J	<1.03	12.6	<0.150	<1.51	<0.849	1.80 J	3.62	<0.0700	<0.121	7.29	<3.02
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	673,000	22.2	<1.03	21.3	<0.150	3.44 J	<0.849	9.04	3.31	<0.0700	<0.121	18.5	<3.02
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	596,000	13.3 J	<1.03	16.6	<0.150	<1.51	<0.849	1.09 J	2.53	<0.0700	<0.121	4.68	<3.02
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	646,000	8.06 J	<1.03	9.66	<0.150	<1.51	<0.849	0.944 J	2.38	<0.0700	0.186 J	13.6	<3.02
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	159,000	17.9 J	<1.03	18.8	<0.150	2.23 J	<0.849	2.78	2.15	<0.0700	<0.121	4.23	<3.02
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	897,000	18.7 J	<1.03	31.1	<0.150	<1.51	<0.849	<0.816	2.64	<0.0700	<0.121	6.59	<3.02
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	387,000 J	23.5	<1.03	35.0	<0.150	<1.51	<0.849	<0.816	2.71	<0.0700	<0.121	4.94	<3.02
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	1,210,000	<4.99	<10.3	7.23 J	<1.50	<15.1	<8.49	<8.16	5.89 J	<0.700	<1.21	6.64 J	44.4 J
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	390,000	18.9 J	<1.03	20.0	<0.150	2.29 J	<0.849	0.870 J	3.05	<0.0700	<0.121	7.68	5.37 J
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	968,000	<4.99	<1.03	11.2	<0.150	<1.51	<0.849	<0.816	2.58	<0.0700	<0.121	2.26	3.91 J
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	409,000	15.4 J	<1.03	20.9	<0.150	<1.51	<0.849	<0.816	2.47	<0.0700	<0.121	3.64	<3.02
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	405,000	14.3 J	<1.03	21.2	<0.150	<1.51	<0.849	<0.816	2.96	<0.0700	<0.121	3.66	<3.02

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	SW7199	VOCs by SW8260B								
						Chromium, Hexavalent	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	<150	----	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	77,000	----	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	96,900 J-	<0.147	<0.149	<0.133	----	<0.158	0.204 J	0.484 J	<0.142	<0.230
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	1,510 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	32.5 J	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	598	----	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	1,350	----	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	87,000 J-	<0.735	<0.745	<0.665	----	<0.790	<0.500	<0.940	<0.710	<1.15
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	6,190 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	7,860 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	17,400	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	8,910 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	77,900 J-	<0.147	<0.149	<0.133	----	<0.158	0.126 J	0.465 J	<0.142	<0.230
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	37,500 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.223 J	<0.142	<0.230
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	3,380 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	47,900 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.271 J	<0.142	<0.230
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	5,710 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	40,000 J-	<0.147	<0.149	<0.133	<0.180	<0.158	<0.100	0.255 J	0.160 J	<0.230
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	10,800	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	22,500 J-	<0.147	<0.149	<0.133	<0.180	<0.158	<0.100	0.277 J	0.236 J	<0.230
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	23,500 J-	<0.147	<0.149	<0.133	<0.180	<0.158	<0.100	0.244 J	0.235 J	<0.230
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	2,420	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	3,210	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	76,300 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.682 J	0.594 J	<0.230
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	12,200 J	<0.147	<0.149	<0.133	----	<0.158	0.122 J	0.424 J	<0.142	<0.230
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	85,100 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.759 J	0.631 J	<0.230
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	26,400 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	13,000	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.401 J	<0.142	<0.230
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	21,600 J-	<0.147	<0.149	<0.133	<0.180	<0.158	<0.100	<0.188	<0.142	<0.230
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	9,360	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.398 J	<0.142	<0.230
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	36,600 J-	<0.147	<0.149	<0.133	<0.180	<0.158	<0.100	0.238 J	0.235 J	<0.230
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	17,000	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	16,500 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	477 J	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	458 J	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<150 UJ	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	1,770 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	95,800	<0.147	<0.149	<0.133	----	<0.158	0.135 J	0.735 J	<0.142	<0.230
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	12,800	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.431 J	<0.142	<0.230
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	42,100	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	2,660	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<150 UJ	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	1,390 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	1,390 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	103,000 J	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.560 J	<0.142	<0.230
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	34,300 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	SW7199	VOCs by SW8260B								
						Chromium, Hexavalent	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	73,100 J-	<0.147	<0.149	<0.133	----	<0.158	0.181 J	0.659 J	0.565 J	<0.230
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	42,800 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.359 J	0.311 J	<0.230
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	73,100 J-	<0.147	<0.149	<0.133	----	<0.158	0.134 J	0.315 J	<0.142	<0.230
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	3,070 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	23,900 J+	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	4,810 J+	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	106,000	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	694	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-08DDI	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	723	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	7,950	<0.147	<0.149	<0.133	----	<0.158	<0.100	1.02	<0.142	<0.230
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	506 J+	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	67,800	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.455 J	<0.142	<0.230
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	121	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	2,320	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	387	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	5,450	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	6,160	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.373 J	<0.142	<0.230
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	90,100 J+	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.543 J	0.380 J	<0.230
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	6,370	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.385 J	<0.142	<0.230
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	63,700 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.417 J	0.374 J	<0.230
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	21,200	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.465 J	<0.142	<0.230
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	19,400	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.461 J	<0.142	<0.230
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	56,200	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.565 J	<0.142	<0.230
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	21,900	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.403 J	<0.142	<0.230
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	239	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.409 J	<0.142	<0.230
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	2,270	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	5,240	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	67.5	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	5,010	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.367 J	<0.142	<0.230
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	262	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	61,300	<0.147	<0.149	<0.133	----	<0.158	<0.100	0.237 J	<0.142	<0.230
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	682	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	9,350	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	365 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	361 J-	<0.147	<0.149	<0.133	----	<0.158	<0.100	<0.188	<0.142	<0.230

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B										
						1,2,3-Trichloropropane	1,2,3-Trimethyl Benzene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	0.428 J	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.346 J	<0.149	<0.104	<0.110
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
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	<1.19	----	<2.41	<1.61	<1.38	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.237	----	<0.481	<0.322 UJ	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104 R	<0.110
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	0.293 J	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.237	<0.104 UJ	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104 UJ	<0.110
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	<0.237	<0.104	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.237	<0.104	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.393 J	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.205 J	<0.149	<0.104	<0.110
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.138 J	0.191 J	<0.104	<0.110
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.429 J	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.240 J	<0.149	<0.104	<0.110
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.118 J	<0.149	<0.104	<0.110
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.237	<0.104	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.132 J	<0.149	<0.104	<0.110
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	0.316 J	<0.104	<0.481	<0.322	<0.276	<0.126	<0.107	0.112 J	<0.149	<0.104	<0.110
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.120 J	<0.149	<0.104	<0.110
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.322 J	<0.149	<0.104	<0.110
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.102 J	<0.149	<0.104	<0.110
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.900 J	<0.149	<0.104	<0.110
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B										
						1,2,3-Trichloropropane	1,2,3-Trimethyl Benzene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.785 J	<0.149	<0.104	<0.110
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-08DDI	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.345 J	<0.149	<0.104	<0.110
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.239 J	<0.149	<0.104	<0.110
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.115 J	<0.149	<0.104	<0.110
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	0.334 J	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104 UJ	<0.110
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.237	----	<0.481 UJ	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.144 J	<0.149	<0.104	<0.110
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.146 J	<0.149	<0.104	<0.110
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.200 J	<0.149	<0.104	<0.110
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.133 J	<0.149	<0.104	<0.110
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	0.134 J	<0.149	<0.104	<0.110
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.237	----	<0.481	<0.322	<0.276	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B											
						1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Acrolein	Acrylonitrile	Benzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.132 J
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.110	<0.120	<0.161	7.60 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
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	<0.550	<0.600	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	----	----	<0.471
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.110	<0.120	<0.161	3.29 J	<0.106	<0.787	<0.114	<0.478	11.7 J	----	----	<0.0941
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.110	<0.120	<0.161	3.45 J	<0.106	0.848 J	<0.114	<0.478	11.7 J	----	----	<0.0941
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.110	<0.120	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.110	<0.120	<0.161	4.61 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.110	<0.120	<0.161	<1.19	<0.106	----	<0.114	<0.478	<11.3	<2.54 R	<0.671	<0.0941
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.186 J
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	<0.110	<0.120	<0.161	<1.19	<0.106	----	<0.114	<0.478	<11.3	<2.54 R	<0.671	<0.0941
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.110	<0.120	<0.161	<1.19	<0.106	----	<0.114	<0.478	<11.3	<2.54 R	<0.671	<0.0941
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.166 J
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.153 J
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.110	<0.120	<0.161	1.25 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.110	<0.120	<0.161	1.24 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.188 J
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.110	<0.120	<0.161	<1.19	<0.106	----	<0.114	<0.478	<11.3	<2.54 R	<0.671	<0.0941
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	<0.110	<0.120	<0.161	<1.19	<0.106	----	<0.114	<0.478	<11.3	<2.54 R	<0.671	<0.0941
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.110	<0.120	<0.161	3.67 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.110	<0.120	<0.161	5.15 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.110	<0.120	<0.161	5.81 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.110	<0.120	<0.161	3.03 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.110	<0.120	<0.161	17.3	<0.106	1.71 J	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	2.71 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B											
						1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Acrolein	Acrylonitrile	Benzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.110	<0.120	<0.161	4.05 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.128 J
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.110	<0.120	<0.161	18.7 J	<0.106	3.03 J	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-08DDI	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.110	<0.120	<0.161	5.79 J	<0.106	1.23 J	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.110	<0.120	<0.161	1.31 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	2.49
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.110	<0.120	<0.161	1.23 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	1.87 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.261 J
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	0.186 J
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.110	<0.120	<0.161	1.22 J	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.110	<0.120	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	----	----	<0.0941

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B										
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	<0.118	<0.128	13.1	8.80	<0.605	<0.128	<0.116	<0.192	8,010	<0.960	<0.126
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	13.5	<0.960	<0.126
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	0.192 J	<0.960	<0.126
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	<0.590	<0.640	5.46	9.81 J-	<3.03	<0.640	<0.580	<0.960	6,650	<4.80	<0.630
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.118	<0.128	0.521 J	0.388 J	<0.605	<0.128	<0.116	<0.192	186 J	<0.960	<0.126
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.118	<0.128	0.509 J	<0.129	<0.605	<0.128	<0.116	<0.192	280 J	<0.960	<0.126
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.118	<0.128	3.33 J+	1.82	<0.605	<0.128	<0.116	<0.192	1,660	<0.960	<0.126
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.118 UJ	<0.128	1.65	1.65	<0.605	<0.128	<0.116	<0.192	727	<0.960	<0.126
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.118	<0.128	10.9	6.45	<0.605	<0.128	<0.116	<0.192	6,390	<0.960	<0.126
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	2.28	0.947 J	<0.605	<0.128	<0.116	<0.192	2,980	<0.960	<0.126
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	0.591 J	<0.129	<0.605	<0.128	<0.116	<0.192	433	<0.960	<0.126
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	4.11	3.20	<0.605	<0.128	<0.116	<0.192	3,780	<0.960	<0.126
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	1.41	1.99	<0.605	<0.128	<0.116	<0.192	516	<0.960	<0.126
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.118	----	1.31	0.626 J	<0.605	0.890 J	<0.116	<0.192	3,400	<0.960	<0.126
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.118	<0.128	0.502 J	0.185 J	<0.605	<0.128	<0.116	<0.192	819	<0.960	<0.126
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	<0.118	----	1.49	0.558 J	<0.605	1.35	<0.116	<0.192	3,080	<0.960	<0.126
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.118	----	1.57	0.534 J	<0.605	1.07	<0.116	<0.192	3,120	<0.960	<0.126
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.118	<0.128	0.679 J	<0.129	<0.605	<0.128	<0.116	<0.192	218	<0.960	<0.126
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.118	<0.128	0.605 J	<0.129	<0.605	<0.128	<0.116	<0.192	215	<0.960	<0.126
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.118	<0.128	3.05	1.20	<0.605	2.62	<0.116	<0.192	5,980	<0.960	<0.126
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.118	<0.128	1.21	0.866 J	<0.605	1.03	<0.116	<0.192	1,140	<0.960	<0.126
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.118	0.298 J	2.74	0.954 J	<0.605	2.96	<0.116	<0.192	7,120	<0.960	<0.126
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<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
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<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
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.118	----	0.648 J	0.320 J	<0.605	0.602 J	<0.116	<0.192	1,340	<0.960	<0.126
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.118	<0.128	1.14	0.707 J	<0.605	0.717 J	<0.116	<0.192	704 J+	<0.960	<0.126
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	<0.118	----	1.53	0.654 J	<0.605	1.38	<0.116	<0.192	2,530	<0.960	<0.126
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<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
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.118	<0.128	0.564 J	0.346 J	<0.605	<0.128	<0.116	<0.192	608	<0.960	<0.126
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.118	<0.128	0.170 J	<0.129	<0.605	<0.128	<0.116	<0.192	21.2	<0.960	<0.126
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	20.3	<0.960	<0.126
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.118	<0.128	0.622 J	0.371 J	<0.605	<0.128	<0.116	<0.192	395	<0.960	<0.126
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.118	<0.128	0.375 J	0.147 J	<0.605	<0.128	<0.116	<0.192	56.8	<0.960	<0.126
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	9.08	5.28	<0.605	2.50	<0.116	<0.192	8,990	<0.960	<0.126
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	2.73	1.62	<0.605	0.809 J	<0.116	<0.192	1,380	<0.960	<0.126
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.118	<0.128	1.81 J+	0.629 J	<0.605	<0.128	<0.116	<0.192	2,270	<0.960	<0.126
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.118	<0.128	0.152 J	<0.129	<0.605	<0.128	<0.116	<0.192	173	<0.960	<0.126
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.118	<0.128	0.846 J	0.580 J	<0.605	<0.128	<0.116	<0.192	277	<0.960	<0.126
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.118 UJ	<0.128	0.176 J	<0.129	<0.605	<0.128	<0.116	<0.192	45.1	<0.960	<0.126
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.118 UJ	<0.128	0.182 J	<0.129	<0.605	<0.128	<0.116	<0.192	44.1	<0.960	<0.126
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.118	<0.128	4.27	1.46	<0.605	<0.128	<0.116	<0.192	6,140	<0.960	<0.126
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.86	0.968 J	<0.605	<0.128	<0.116	<0.192	1,830	<0.960	<0.126

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B										
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.118	<0.128	14.8	8.45 J-	<0.605	3.80	<0.116	<0.192	6,320	<0.960	<0.126
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.118	<0.128	9.46	5.71 J-	<0.605	2.53	<0.116	<0.192	3,530	<0.960	<0.126
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.118	<0.128	10.0	5.10	<0.605	<0.128	<0.116	<0.192	4,840	<0.960	<0.126
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.118	<0.128	0.674 J	0.297 J	<0.605	<0.128	<0.116	<0.192	217	<0.960	<0.126
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<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
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.676 J	0.206 J	<0.605	0.313 J	<0.116	<0.192	373	<0.960	<0.126
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.118	<0.128	<0.136	0.452 J	<0.605	<0.128	<0.116	<0.192	10,300 J+	<0.960	<0.126
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	90.2	<0.960	<0.126
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	85.4	<0.960	<0.126
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.118	<0.128	5.72	2.19	<0.605	2.14	<0.116	<0.192	1,100 J+	<0.960	<0.126
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.118	<0.128	0.213 J	<0.129 UJ	<0.605	<0.128	<0.116	<0.192	38.2	<0.960	<0.126
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.118	<0.128	1.86	0.936 J	<0.605	0.488 J	<0.116	<0.192	2,940	<0.960	<0.126
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	21.9	<0.960	<0.126
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.516 J	0.526 J	<0.605	0.384 J	<0.116	<0.192	130	<0.960	<0.126
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.118	<0.128	0.248 J	<0.129	<0.605	<0.128	<0.116	<0.192	20.3	<0.960	<0.126
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.118	<0.128	0.213 J	0.477 J	<0.605	<0.128	<0.116	<0.192	316	<0.960	<0.126
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.118	<0.128	0.790 J	0.558 J	<0.605	0.491 J	<0.116	<0.192	695	<0.960	<0.126
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.118	<0.128	2.44	0.612 J	<0.605	2.22	<0.116	<0.192	5,540	<0.960	<0.126
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.118	<0.128	0.588 J	0.503 J	<0.605	0.593 J	<0.116	<0.192	704	<0.960	<0.126
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.118	<0.128	2.15	0.934 J	<0.605	1.81	<0.116	<0.192	4,690	<0.960	<0.126
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.28	0.688 J	<0.605	0.961 J	<0.116	<0.192	1,670	<0.960	<0.126
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.16	0.609 J	<0.605	0.812 J	<0.116	<0.192	1,640	<0.960	<0.126
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.118	<0.128	1.63	0.706 J	<0.605	1.11	<0.116	<0.192	3,460	<0.960	<0.126
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.118	<0.128	1.18	0.624 J	<0.605	0.865 J	<0.116	<0.192	1,350	<0.960	<0.126
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<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
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.118	<0.128	0.557 J	0.536 J	<0.605	0.537 J	<0.116	<0.192	157	<0.960	<0.126
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.118	<0.128	0.402 J	<0.129	<0.605	<0.128	<0.116	<0.192	407 J+	<0.960	<0.126
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	13.2 J+	<0.960	<0.126
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.609 J	0.428 J	<0.605	0.809 J	<0.116	<0.192	705	<0.960	<0.126
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192	9.07 J+	<0.960	<0.126
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.118	<0.128	1.91	0.510 J	<0.605	<0.128	<0.116	<0.192	3,310	<0.960	<0.126
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	0.369 J	<0.116	<0.192	121	<0.960	<0.126
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.118	<0.128	0.794 J	0.154 J	<0.605	<0.128	<0.116	<0.192	424	<0.960	<0.126
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	0.323 J	<0.129	<0.605	0.365 J	<0.116	<0.192	12.8	<0.960	<0.126
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	0.308 J	<0.129	<0.605	0.346 J	<0.116	<0.192	12.3	<0.960	<0.126

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B									
						cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	<0.111	6.51	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
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	<0.555	4.26 J	<0.610	<1.87	<0.525	<0.505	<0.685	<1.69	<0.525	<2.15
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.111	0.328 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.111	1.39	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.111	0.956 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430 UJ
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.111	4.96	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.111	0.812 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.111	0.141 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.111	2.06	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.111	0.948 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.111	0.456 J	<0.122	<0.374	<0.105	----	<0.137	<0.337	<0.105	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	<0.111 UJ	0.480 J	<0.122	<0.374	<0.105	----	<0.137	<0.337	<0.105	----
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.111 UJ	0.495 J	<0.122	<0.374	<0.105	----	<0.137	<0.337	<0.105	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.111	1.08	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.111	0.715 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.111	1.00 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.111	0.209 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.111	0.576 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.111 UJ	0.245 J	<0.122	<0.374	<0.105	----	<0.137	<0.337	<0.105	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.111	0.612 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	<0.111 UJ	0.590 J	<0.122	<0.374	<0.105	----	<0.137	<0.337	<0.105	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.111	0.441 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.111	0.274 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.111	0.190 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.111	0.259 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.111	3.00	0.473 J	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.111	1.22	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.111	0.605 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.111	0.457 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.111	1.42	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.111	0.749 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B									
						cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)	Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.111	7.16	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.111	4.75	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.111	3.82	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.111	0.273 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<0.111	0.410 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.111	0.189 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.111	0.370 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.111	1.76	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.111	0.814 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.111	0.509 J	<0.122	<0.374	<0.105	<0.101	0.232 J	<0.337	<0.105	<0.430
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.111	0.374 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.111	0.400 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.111	0.460 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.111	0.584 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.111	0.462 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.111	0.664 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.111	0.610 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.111	0.573 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.111	0.639 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.111	0.618 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.111	0.561 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.111	0.471 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.111	0.447 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.111	0.533 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.111	0.256 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.111	0.363 J	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.111	<0.140	<0.122	<0.374	<0.105	<0.101	<0.137	<0.337	<0.105	<0.430

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B											
						Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/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	1.11 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
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	<2.15	<5.00	<0.785 UJ	<0.497	<0.870	<0.600	<0.625	<0.590 UJ	<0.975	<20.3 UJ	<0.505	<0.635
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.58	<0.101	<0.127
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.05	<0.101	<0.127
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	0.478 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.430	<1.00 UJ	<0.157 UJ	<0.0993 UJ	<0.174 UJ	<0.120	<0.125 UJ	<0.118 R	<0.195	<4.06	<0.101	<0.127
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	0.797 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.74	<0.101	<0.127
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.71	<0.101	<0.127
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.31 J	<0.101	<0.127
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.430	<1.00	<0.157	<0.0993	----	<0.120	<0.125	<0.118 R	----	----	<0.101	<0.127
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101	<0.127
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	<0.430	<1.00	<0.157	<0.0993	----	<0.120	<0.125	<0.118	----	----	<0.101	<0.127
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.430	<1.00	<0.157	<0.0993	----	<0.120	<0.125	<0.118	----	----	<0.101	<0.127
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.637 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.41 J	<0.101	<0.127
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	13.0	<0.101	<0.127
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.819 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.12	<0.101	<0.127
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.430	<1.00	<0.157	<0.0993	0.220 J	<0.120	<0.125	<0.118	<0.195	12.7	<0.101	<0.127
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.430	<1.00	<0.157	<0.0993	----	<0.120	<0.125	<0.118	----	----	<0.101	<0.127
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	<0.430	<1.00	<0.157	<0.0993	----	<0.120	<0.125	<0.118	----	----	<0.101	<0.127
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.15	<0.101	<0.127
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	1.47 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.42	<0.101	<0.127
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.74 J	<0.101	<0.127
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.28 J	<0.101	<0.127
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	0.856 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.59	<0.101	<0.127
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	10.8	<0.101	<0.127

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B											
						Methylene Chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)	tert-Butylbenzene
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	1.58 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.04 J	<0.101	<0.127
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	8.05	<0.101	<0.127
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	1.14 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.37	<0.101	<0.127
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.430	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	0.520 J	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.430	<1.00	<0.157	<0.0993	0.326 J	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	0.565 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101	<0.127
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	0.639 J	<1.00 UJ	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.31	<0.101	<0.127
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.16	<0.101	<0.127
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.13 J	<0.101	<0.127
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.75	<0.101	<0.127
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.48 J	<0.101	<0.127
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.430	<1.00	<0.157	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101	<0.127

Table 2
Baseline Groundwater Sampling Results
Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B								VFAs by AM23G		
						Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/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	<0.300	<0.278	<0.149	<0.118	0.907 J	<0.160	<0.234	<0.174	----	----	----
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<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	<0.300	0.292 J	<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	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17	<0.870	----	----	----
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<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	<0.300	0.330 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	<0.300	0.644 J	<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	<0.300	<0.278	<0.149	<0.118	0.260 J	<0.160	<0.234	<0.174	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.300	0.333 J	<0.149	<0.118	0.609 J	<0.160	<0.234	<0.174	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.300	0.341 J	<0.149	<0.118	0.460 J	<0.160	<0.234	<0.174	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.300	0.513 J	<0.149	<0.118	0.429 J	<0.160	<0.234	<0.174	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	<0.300	<0.278	<0.149	<0.118	0.373 J	<0.160	<0.234	<0.174	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	0.321 J	<0.278	<0.149	<0.118	0.491 J	<0.160	<0.234	<0.174	----	----	----
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	<0.300	<0.278	<0.149	<0.118	0.516 J	<0.160	<0.234	<0.174	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<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	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<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	<0.300	<0.278	<0.149	<0.118	0.259 J	<0.160	<0.234	<0.174	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.300	1.49	<0.149	<0.118	0.807 J	<0.160	<0.234	<0.174	----	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<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	<0.300	0.454 J	<0.149	<0.118	0.223 J	<0.160	<0.234	0.220 J	----	----	----
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	<0.300	<0.278	<0.149	<0.118	0.217 J	<0.160	<0.234	<0.174	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.300	<0.278	<0.149	<0.118	0.235 J	<0.160	<0.234	<0.174	----	----	----
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	<0.300	<0.278	<0.149	<0.118	0.513 J	<0.160	<0.234	<0.174	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<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	<0.300	<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	<0.300	<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	<0.300	<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	<0.300	<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	<0.300	<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	<0.300	<0.278	<0.149	<0.118	0.883 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.300	<0.278	<0.149	<0.118	0.222 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.300	<0.278	<0.149	<0.118	0.208 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.300	0.285 J	<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	<0.300	0.798 J	<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	<0.300	<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	<0.300	<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	<0.300	<0.278	<0.149	<0.118	0.805 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.300	0.375 J	<0.149	<0.118	0.225 J	<0.160	<0.234	<0.174	----	----	----

Table 2
 Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VOCs by SW8260B								VFAs by AM23G		
						Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride	Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid
						ft bgs	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.300	<0.278	<0.149	<0.118	0.920 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.300	<0.278	<0.149	<0.118	0.500 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.300	<0.278	<0.149	<0.118	0.524 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.300	0.332 J	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	<0.300	<0.278	<0.149	<0.118	0.191 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	2.63	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<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	<0.300	0.531 J	<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	<0.300	<0.278	<0.149	<0.118	0.904 J	<0.160	0.413 J	<0.174	----	----	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.300	<0.278	<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	<0.300	<0.278	<0.149	<0.118	0.195 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<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	<0.300	3.30	<0.149	<0.118	<0.190	<0.160	<0.234	0.326 J	----	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<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	<0.300	<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	<0.300	<0.278	<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	<0.300	<0.278	<0.149	<0.118	0.873 J	<0.160	<0.234	<0.174	<6.1	25 J	<5.8
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.300	<0.278	<0.149	<0.118	0.194 J	<0.160	<0.234	<0.174	<1.2	3.6 J	<1.2
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.300	<0.278	<0.149	<0.118	0.752 J	<0.160	<0.234	<0.174	<6.1	26 J	<5.8
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.300	<0.278	<0.149	<0.118	0.363 J	<0.160	<0.234	<0.174	<6.1	<12	<5.8
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.300	<0.278	<0.149	<0.118	0.314 J	<0.160	<0.234	<0.174	<6.1	<12	<5.8
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.300	<0.278	<0.149	<0.118	0.456 J	<0.160	<0.234	<0.174	<12	27 J	<12
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.300	<0.278	<0.149	<0.118	0.291 J	<0.160	<0.234	<0.174	<3.0	17 J	<2.9
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.300	<0.278	<0.149	<0.118	0.295 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<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	<0.300	<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	<0.300	<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	<0.300	<0.278	<0.149	<0.118	0.215 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.300	<0.278	<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	<0.300	<0.278	<0.149	<0.118	0.534 J	<0.160	<0.234	<0.174	----	----	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<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	<0.300	<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	<0.300	<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	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234	<0.174	----	----	----

Table 2
Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VFAs by AM23G						
						Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid	Pentanoic Acid	Propionic Acid	Pyruvic Acid
						ft bgs	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	----	----	----	----	----	----	----
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-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	----	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	----	----	----	----
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	----	----	----	----	----	----	----
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-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----
U4-E-06D	11/16/2021	N	BL01	UMCf	95.1 - 110.1	----	----	----	----	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----
U4-E-06I	11/16/2021	N	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----
U4-E-06I	11/16/2021	FD	BL01	UMCf	73.2 - 88.2	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----	----	----	----	----
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	----	----	----	----	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----	----	----	----	----
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----	----	----	----	----
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	----	----	----	----	----	----	----
U4-E-10D	11/16/2021	N	BL01	UMCf	94.5 - 109.5	----	----	----	----	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----	----	----	----	----
U4-E-10I	11/16/2021	N	BL01	UMCf	74.2 - 89.2	----	----	----	----	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	----	----	----	----	----	----	----
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----
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-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----	----	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----
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-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----

Table 2
Baseline Groundwater Sampling Results
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	VFAs by AM23G						
						Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid	Pentanoic Acid	Propionic Acid	Pyruvic Acid
						ft bgs	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	----	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	86.8 - 106.5	----	----	----	----	----	----	----
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	----	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	----	----	----	----	----	----	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	----	----	----	----	----	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----	----	----	----	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	----	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	----	----	----	----	----	----	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----	----	----	----	----
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	----	----	----	----	----	----	----
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	460	<5.8	<5.6	<5.3	<5.6	<5.3	<6.0
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	91	<1.2	<1.1	<1.1	<1.1	<1.1	<1.2
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	460	<5.8	43 J	<5.3	<5.6	<5.3	<6.0
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	240	<5.8	<5.6	<5.3	<5.6	<5.3	<6.0
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	220	<5.8	<5.6	<5.3	<5.6	<5.3	<6.0
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	490	<12	<11	<11	<11	<11	<12
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	240	<2.9	<2.8	21 J	<2.8	<2.6	<3.0
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	----	----	----	----	----	----	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	----	----	----	----	----	----	----
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	----	----	----	----	----	----	----
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	----	----	----	----	----	----	----
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----	----	----	----	----
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	----	----	----	----	----	----	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	----	----	----	----	----	----	----
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	----	----	----	----	----

Notes:
 FD - Field duplicate
 E - Field instrument error.
 J - The result is an estimated quantity. The associated numerical value is the approximate concentrate 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.
 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.