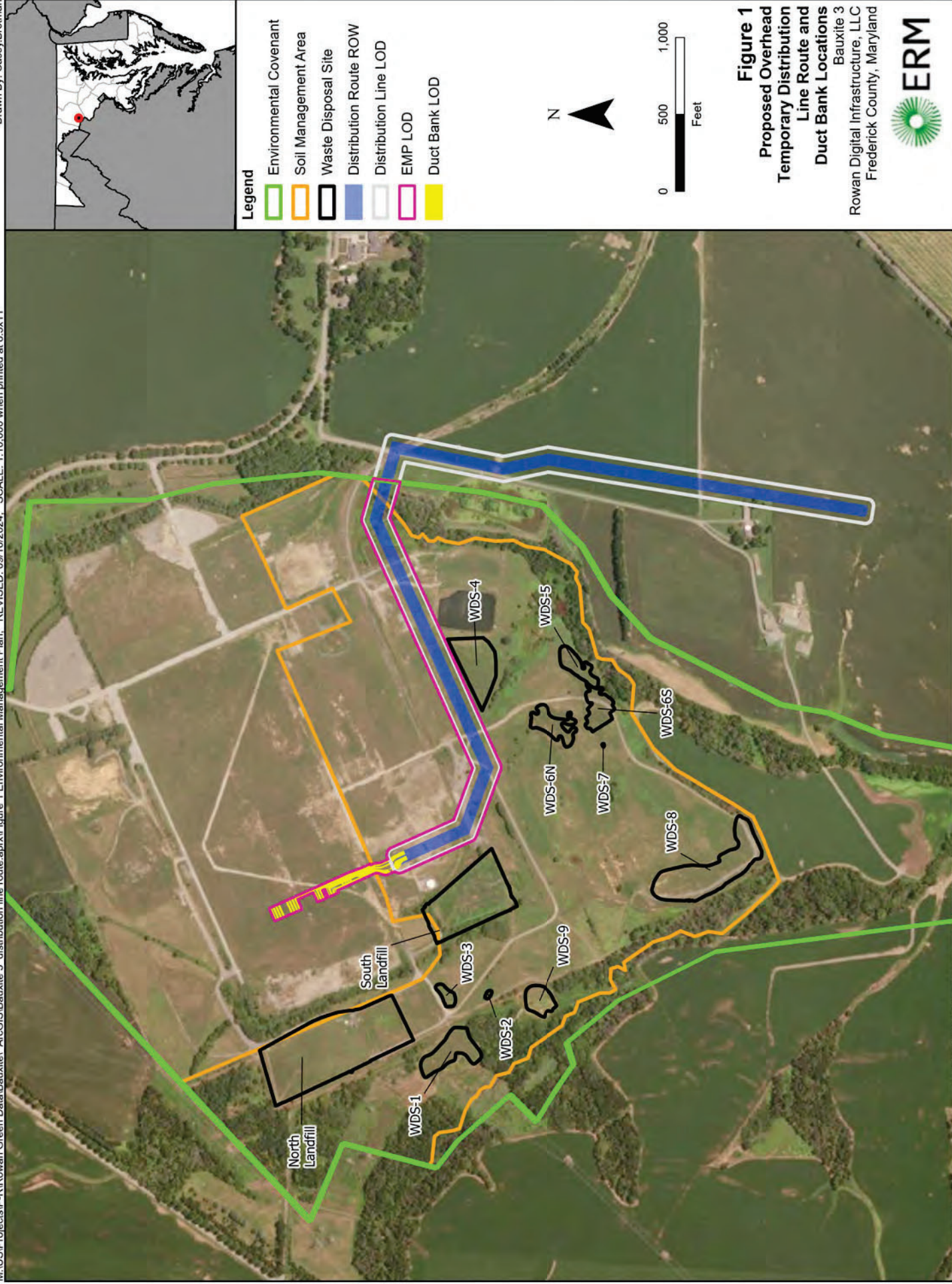




FIGURES





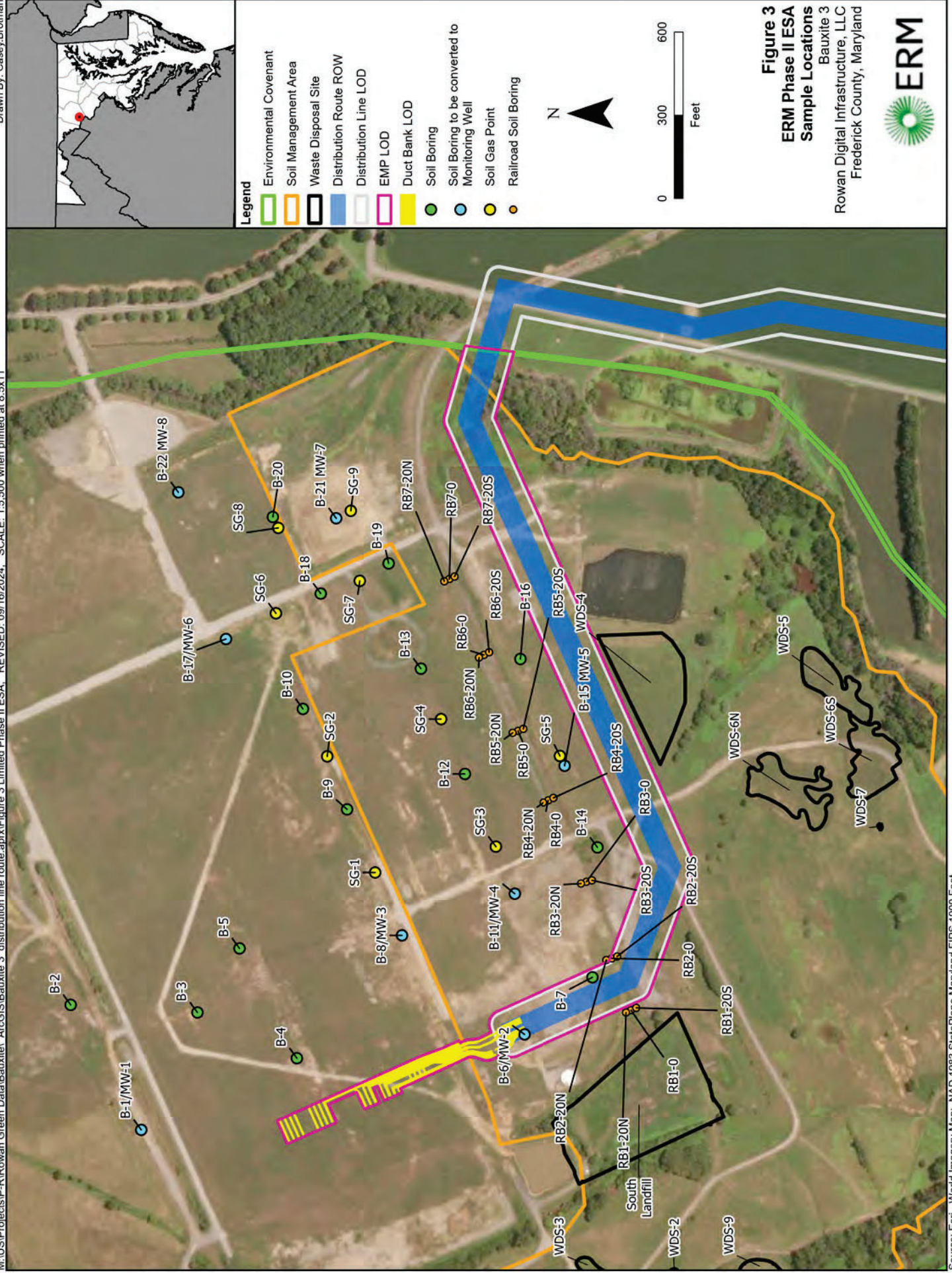




Figure 4
Sample Locations
Near EMP LOD
Bauxite 3
Rowan Digital Infrastructure, LLC
Frederick County, Maryland





Figure 5

Groundwater Contour Map

Bauxite 3

Rowan Digital Infrastructure, LLC

Frederick County, Maryland



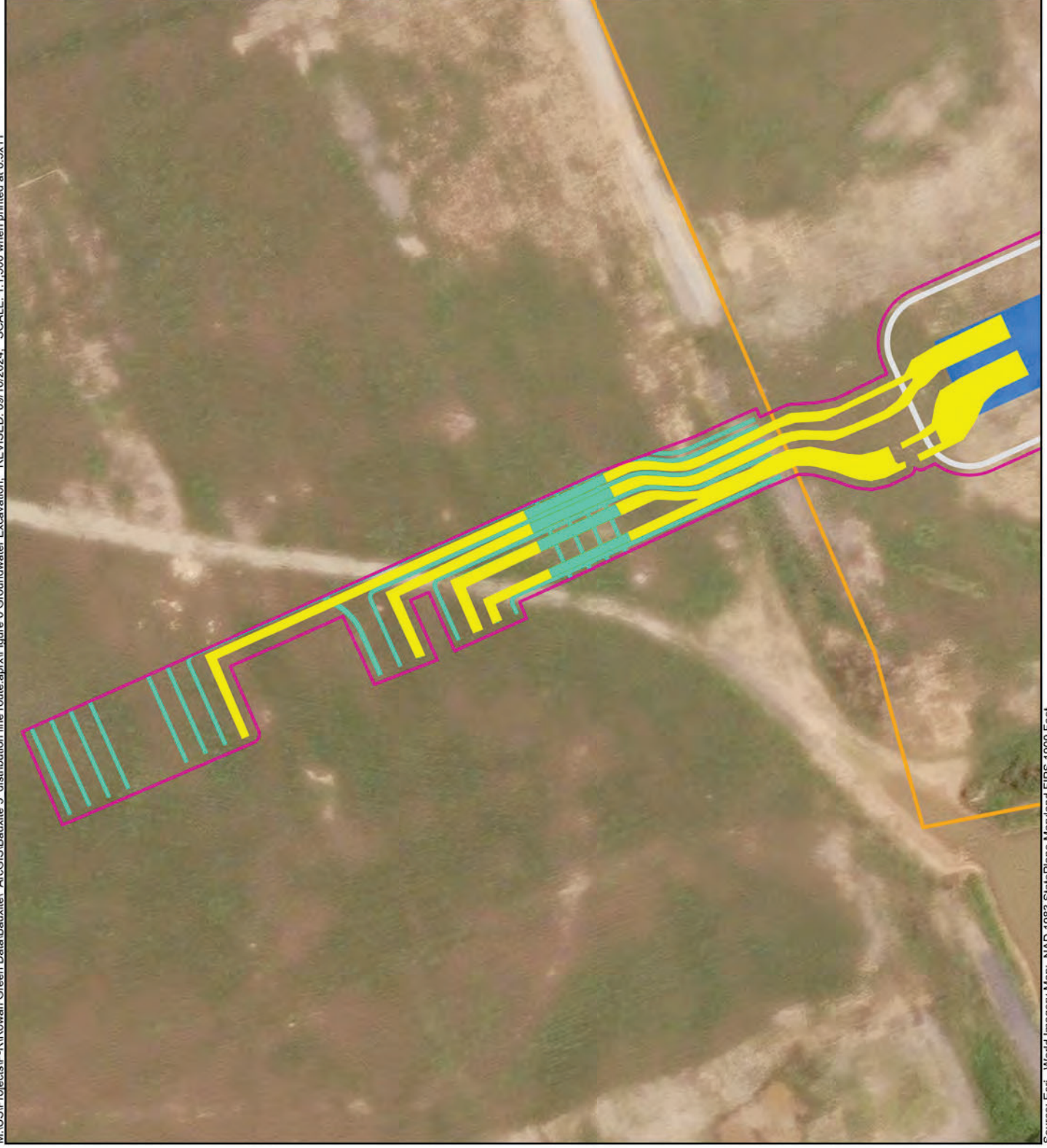


Figure 6
Areas where Excavation
May Encounter Groundwater
Bauxite 3
Rowan Digital Infrastructure, LLC
Frederick County, Maryland





TABLES

Table 1
Groundwater Elevation Data
Interim Distribution Line and Duct Bank Construction
Frederick, MD

Monitoring Well ID	Reference Elevation (TIC feet amsl)	Ground Surface Elevation (feet amsl)	Date	Depth to Water (feet bre)	Depth to water (feet bgs)	Groundwater Elevation (ft amsl)
MW-1	339.513	336.563	5/8/2024	11.66	8.71	327.853
MW-2	330.239	327.489	5/7/2024	14.44	11.69	315.799
MW-3	331.641	328.766	5/2/2024	13.05	10.175	318.591
MW-4	326.032	323.442	5/7/2024	13.53	10.94	312.502
MW-5	329.445	326.215	5/6/2024	20.41	17.18	309.035
MW-6	324.895	322.065	5/1/2024	8.10	5.27	316.795
MW-7	326.712	323.912	5/1/2024	13.10	10.3	313.612
MW-8	327.892	324.872	5/2/2024	11.55	8.53	316.342

Notes:

Bold = Monitoring wells within or near EMP LOD

amsl = Above Median Sea Level

bgs = Below Ground Surface

TIC= Top of Inner Casing

Table 2
Soil Data - TCL VOCs
Bauxite Interim Route Distribution Line
Frederick, MD

Parameter	MDE Non-Residential Cleanup Standard	Source		Units	B-14		B-15/MW-5		B-16	
		Location ID	Depth (ft)		B-14-14-15-G	B-15-14-15-G	B-16-14-15-G			
		Sample ID	Sample Date		5/10/2024	5/6/2024	5/9/2024			
Acetone	67,000,000			ug/kg	< 16		36	6.8 J	< 1000 cn	< 1700 cn
Benzene	510			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Bromodichloromethane (THM)	1,300			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Bromoform (THM)	86,00			ug/kg	< 7.8		< 11	< 7.5	< 520 cn	< 850 F1 cn
Bromomethane	3,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F2 cn
2-Butanone (Methyl Ethyl Ketone)	19,000,000			ug/kg	< 7.8		4.1 J	< 7.5	< 520 cn	< 850 cn
Carbon Disulfide	350,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Carbon Tetrachloride	2,900,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Chlorobenzene	130,000.00			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F2 cn
Chloroethane	570,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Chloroform	1,400			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Chloromethane	46,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Cumene (Isopropylbenzene)	990,000			ug/kg	< 3.9 F1		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Cyclohexane	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 cn
1,2-Dibromo-3-chloropropane	64			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Dibromochloromethane	39,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,2-Dibromoethane	160			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,2-Dichlorobenzene	930,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,3-Dichlorobenzene	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,4-Dichlorobenzene	11,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,1-Dichloroethane	16000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,2-Dichloroethane	2000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,1-Dichloroethene	100,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
cis-1,2-Dichloroethene	230000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
trans-1,2-Dichloroethene	2,300,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,2-Dichloropropane	6,600			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
cis-1,3-Dichloropropene	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
trans-1,3-Dichloropropene	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Dichlorodifluoromethane	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Ethylbenzene	25			ug/kg	< 7.8		< 8.3	< 7.5	< 520 cn	< 850 cn
Freon 113	NVL			ug/kg	< 7.8		< 8.3	< 7.5	< 520 cn	< 850 cn
2-Hexanone	NVL			ug/kg	< 7.8		< 8.3	< 7.5	< 520 cn	< 850 cn
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	14,000,000			ug/kg	< 7.8		< 8.3	< 7.5	< 520 cn	< 850 cn
Methyl Acetate	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 cn
Methycyclohexane	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 cn
Methylene Chloride (Dichloromethane)	320,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Methyl tert-butyl ether (MTBE)	210,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Styrene	3,500,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Tetrachloroethene	NVL			ug/kg	< 7.8		< 4.2	< 7.5	< 520 cn	< 850 F1 cn
1,2,4-Trichlorobenzene	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,1,2,2-Tetrachloroethane	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Toluene	2,700			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,1,1-Trichloroethane	4,700,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
1,1,2-Trichloroethane	3,600,000			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Trichloroethene	630			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Trichlorofluoromethane	190			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Vinyl Chloride	NVL			ug/kg	< 3.9		< 4.2	< 3.7	< 260 cn	< 430 F1 cn
Xylenes	200			ug/kg	< 7.8		< 8.3	< 7.5	< 260 cn	< 430 F1 cn
	250,000			ug/kg	< 7.8		< 8.3	< 7.5	< 260 cn	< 430 F1 cn

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Parameter		ERM Phase II ESA (Bauxite 3) 2024																
		Source		ERM Phase II ESA (Bauxite 3) 2024														
		Location (ft)	Depth (ft)	B-4	B-4	B-4	B-6	B-6	B-6	B-6	B-6	B-6	B-7/ MW-2	B-7/ MW-2	B-7/ MW-2	B-7/ MW-2	B-8	B-8
		Sample ID	Sample Date	B-4-0-1-G	B-4-1-5-C	B-4-5-14-C	B-6-0-1-G	B-6-1-5-C	B-6-5-15-C	B-6-5-15-C	B-7-0-1-G	B-7-1-5-C	B-7-5-13.5-C	B-8-0-1-G	B-8-1-5-C			
MDE Non-Residential Cleanup Standard	Units																	
	Acenaphthene	ug/kg	82	< 19	< 24	< 190 cn	< 21	< 23	< 23	< 190	< 22	< 22	< 22	< 190 cn	< 190 cn	< 190 cn	< 190 cn	
	Acenaphthylene	ug/kg	8.6 J	< 19	< 24	< 190 cn	< 21	< 23	< 23	< 190	< 22	< 22	< 22	< 190 cn	< 190 cn	< 190 cn	< 190 cn	
	Anthracene	ug/kg	170	6.2 J	< 24	120 J cn	< 21	< 23	< 23	39 J cn	< 22	< 22	< 22	5.4 J	< 190 cn	< 190 cn	< 190 cn	
	Benzol a ianthracene*	ug/kg	950	120	< 24	1300 cn	12 J	< 23	< 23	360 cn	15 J	< 22	< 22	47	160 J cn	240 cn	240 cn	
	Benzol a i pyrene*	ug/kg	1300	160	< 24	1100 cn	15 J	< 23	< 23	640 cn	22	< 22	< 22	62	240 cn	240 cn	240 cn	
	Benzol b i fluoranthene*	ug/kg	1500	270	< 24	2800 cn	30	< 23	< 23	940 cn	27	< 22	< 22	93	340 cn	340 cn	340 cn	
	Benzol g, h, i perylene	ug/kg	990	130	< 24	1100 cn	18 J	< 23	< 23	700 cn	18 J	< 22	< 22	61	240 cn	240 cn	240 cn	
	Benzol k i fluoranthene*	ug/kg	480	85	< 24	1100 cn	7.7 J	< 23	< 23	340 cn	9.3 J	< 22	< 22	40	96 J cn	96 J cn	96 J cn	
	Chrysene*	ug/kg	920	170	< 24	3600 cn	15 J	< 23	< 23	500 cn	19 J	< 22	< 22	50	220 cn	220 cn	220 cn	
	Dibenzo [a, h] anthracene*	ug/kg	240	36	< 24	400 cn	< 21	< 23	< 23	180 J cn	< 22	< 22	< 22	16 J	< 190 cn	< 190 cn	< 190 cn	
	Fluoranthene	ug/kg	1200	110	< 24	1200 cn	17 J	< 23	< 23	430 cn	24	< 22	< 22	62	240 cn	240 cn	240 cn	
	Fluorene	ug/kg	37	< 19	< 24	< 190 cn	< 21	< 23	< 23	< 190	< 22	< 22	< 22	< 18	< 190 cn	< 190 cn	< 190 cn	
	Indeno [1, 2, 3-cd] pyrene*	ug/kg	830	100	< 24	860 cn	14 J	< 23	< 23	500 cn	18 J	< 22	< 22	49	160 J cn	160 J cn	160 J cn	
	Naphthalene	ug/kg	11 J	< 19	< 24	< 190 cn	36	< 23	< 23	< 190	< 22	< 22	< 22	< 18	< 190 cn	< 190 cn	< 190 cn	
	Phenanthrene	ug/kg	510	22	< 24	290 cn	6.6 J	< 23	< 23	150 J cn	8.0 J	< 22	< 22	19	110 J cn	110 J cn	110 J cn	
	Pyrene	ug/kg	1200	100	< 24	1200 cn	16 J	< 23	< 23	480 cn	22	< 22	< 22	62	230 cn	230 cn	230 cn	

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024													
		Location ID	B-8	B-11	B-11	B-11	B-11	B-11	B-11	B-14	B-14	B-14	DUP-4	B-14	B-15/ MW-5
Parameter	MDE Non-Residential Cleanup Standard	Depth (ft)	B-8-5-15-C	B-11-0-1-G	B-11-1-5-C	B-11-1-5-C	B-11-5-15-C	B-14-0-1-G	B-14-1-5-C	B-14-1-5-C	B-14-1-5-C	B-14-5-15-C	B-15-0-1-G	B-15-1-5-C	B-15-1-5-C
		Sample Date	5/2/2024	5/7/2024	5/7/2024	5/7/2024	5/7/2024	5/10/2024	5/10/2024	5/10/2024	5/10/2024	5/10/2024	5/6/2024	5/6/2024	5/6/2024
		Units													
Acenaphthene	4500000	ug/kg	< 21	7.6 J	170	< 22 F1 F2	< 22 F1 F2	< 19	< 19	< 19	< 20	< 20	< 19	< 19	30
Acenaphthylene	NVL	ug/kg	< 21	6.7 J	6.3 J	< 22 F1 F2	< 22 F1 F2	< 19	< 19	< 19	< 20	< 20	< 19	< 19	< 20
Anthracene	23000000	ug/kg	< 21	94	440	19 J F1 F2	19 J F1 F2	< 19	< 19	< 19	< 20	< 20	< 19	6.1 J	46
Benzof[a]anthracene*	21000	ug/kg	< 21	1800	1700	5.1 J F1 F2	5.1 J F1 F2	16 J	< 19	< 19	< 20	< 20	< 20	31	330
Benzof[a]pyrene*	2100	ug/kg	< 21	1100	1200	< 22 F1 F2	< 22 F1 F2	23	< 19	< 19	< 20	< 20	< 20	40	430
Benzof[b]fluoranthene*	21000	ug/kg	< 21	4400	1800	< 22 F1 F2	< 22 F1 F2	32	< 19	< 19	< 20	< 20	< 20	54	500
Benzof[g,h,i]perylene	NVL	ug/kg	< 21	1900	740	< 22 F1 F2	< 22 F1 F2	14 J	< 19	< 19	< 20	< 20	< 20	33	330
Benzof[k]fluoranthene*	210000	ug/kg	< 21	1200	680	< 22 F1 F2	< 22 F1 F2	9.2 J	< 19	< 19	< 20	< 20	< 20	17 J	170
Chrysene*	2100000	ug/kg	< 21	3200	2200	< 22 F1 F2	< 22 F1 F2	18 J	< 19	< 19	< 20	< 20	< 20	34	320
Dibenzof[a,h]anthracene*	2100	ug/kg	< 21	480	180	< 22 F1 F2	< 22 F1 F2	< 19	< 19	< 19	< 20	< 20	< 20	10 J	80
Fluoranthene	3000000	ug/kg	< 21	1300	---	24 F1 F2	24 F1 F2	25	< 19	< 19	< 20	< 20	< 20	44	500
Fluorene	3000000	ug/kg	< 21	< 22	82	< 22 F1 F2	< 22 F1 F2	< 19	< 19	< 19	< 20	< 20	< 19	11 J	11 J
Indeno[1,2,3-cd]pyrene*	21000	ug/kg	< 21	1200	60	< 22 F1 F2	< 22 F1 F2	9.4 J	< 19	< 19	< 20	< 20	< 20	25	280
Naphthalene	17000	ug/kg	< 21	< 22	< 20	< 22 F1 F2	< 22 F1 F2	< 19	< 19	< 19	< 20	< 20	< 19	< 19	< 20
Phenanthrene	2300000	ug/kg	< 21	180	2000	8.7 J F1 F2	8.7 J F1 F2	7.1 J	< 19	< 19	< 20	< 20	< 20	16 J	160
Pyrene	2300000	ug/kg	< 21	1300	3700	18 J F1 F2	18 J F1 F2	22	< 19	< 19	< 20	< 20	< 20	48	450

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024													
Parameter	MDE Non-Residential Cleanup Standard	Units	Location ID	B-15/ MW-5	B-16	B-16	B-16	B-16	B-16	B-16	B-16	DUP-5	RB1-0	RB1-0	
			Depth (ft)	5-15	0-1	1-5	5-15	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
			Sample ID	B-15-5-15-C	B-16-0-1-G	B-16-1-5-C	B-16-5-15-G	RB-1-20N-0-0.5	RB-1-20N-0-0.5	RB-1-20N-0.5-2	RB-1-20N-0.5-2	RB-1-0-0-0.5	RB-1-0-0-0.5	RB-1-0-0-0.5	RB-1-0-0-0.5
Sample Date	5/6/2024	5/9/2024	5/9/2024	5/9/2024	5/9/2024	5/9/2024	5/9/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	
Acenaphthene	4500000	ug/kg		< 21	11 J	< 20	< 23	< 20	< 20	< 19	< 19	< 19	23 J cn	21	
Acenaphthylene	NVL	ug/kg		< 21	8.5 J	< 20	< 23	< 23	5.1 J	< 19	< 19	< 19	< 90 cn	< 17	
Anthracene	23000000	ug/kg		< 21	20	7.6 J	< 23	< 23	< 20	< 19	< 19	< 19	39 J cn	26	
Benzof[a]anthracene*	21000	ug/kg		< 21	130	7.6 J	< 23	< 23	39	< 19	< 19	< 19	610 cn	440	
Benzof[a]pyrene*	2100	ug/kg		< 21	180	6.6 J	< 23	< 23	54	< 19	< 19	< 19	820 cn	600	
Benzof[b]fluoranthene*	21000	ug/kg		4.4 J	220	18 J	< 23	< 23	71	< 19	< 19	< 19	1100 cn	700	
Benzof[g,h,i]perylene	NVL	ug/kg		< 21	150	9.4 J	< 23	< 23	49	< 19	< 19	< 19	670 cn	480	
Benzof[k]fluoranthene*	210000	ug/kg		< 21	86	4.8 J	< 23	< 23	29	< 19	< 19	< 19	430 cn	310	
Chrysene*	2100000	ug/kg		< 21	160	19 J	< 23	< 23	48	< 19	< 19	< 19	710 cn	490	
Dibenzof[a,h]anthracene*	2100	ug/kg		< 21	36	< 20	< 23	< 23	< 20	< 19	< 19	< 19	150 cn	120	
Fluoranthene	3000000	ug/kg		< 21	240	21	< 23	< 23	53	< 19	< 19	< 19	810 cn	620	
Fluorene	3000000	ug/kg		< 21	5.9 J	7.3 J	< 23	< 23	< 20	< 19	< 19	< 19	< 90 cn	7.7 J	
Indeno[1,2,3-cd]pyrene*	21000	ug/kg		< 21	120	7.8 J	< 23	< 23	44	< 19	< 19	< 19	530 cn	380	
Naphthalene	17000	ug/kg		< 21	11 J	16 J	< 23	< 23	< 20	< 19 F1	< 19	< 19	< 90 cn	< 17	
Phenanthrene	2300000	ug/kg		< 21	130	31	< 23	< 23	15 J	< 19	< 19	< 19	190 cn	150	
Pyrene	2300000	ug/kg		< 21	220	17	< 23	< 23	52	< 19	< 19	< 19	820 cn	600	

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

		ERM Phase II ESA (Bauxite 3) 2024									
		Source	Location ID	RB1-20S 0-0.5	RB1-20S 0.5-2	RB2-20N 0-0.5	RB2-20N 0.5-2	RB2-0 0-0.5	RB2-0 0.5-2	RB2-20S 0-0.5	RB2-20S 0.5-2
			Depth (ft)	RB-1-20S-0-0.5	RB-1-20S-0.5-2	RB-2-20N-0-0.5	RB-2-20N-0.5-2	RB-2-0-0-0.5	RB-2-0-0.5-2	RB-2-20S-0-0.5	RB-2-20S-0.5-2
			Sample Date	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024
Parameter	MDE Non-Residential Cleanup Standard	Units									
Acenaphthene	4500000	ug/kg		15 J	11 J	19 J	< 20	210 cn	72	< 17	25
Acenaphthylene	NVL	ug/kg		< 17	< 19	23	5.3 J	570 cn	390	< 17	4.8 J
Anthracene	23000000	ug/kg		24	18 J	57	9.5 J	710 cn	490	3.8 J	52
Benzo[a]anthracene*	21000	ug/kg		230	76	450	52	3000 cn	2000	18	670
Benzo[a]pyrene*	2100	ug/kg		340	97	530	74	3700 cn	2000	17	870
Benzo[b]fluoranthene*	21000	ug/kg		460	120	700	100	5600 cn	3100	30	1100
Benzo[g,h,i]perylene	NVL	ug/kg		320	93	470	66	2900 cn	1600	13 J	750
Benzo[k]fluoranthene*	210000	ug/kg		130	55	260	29	2000 cn	1200	7.6 J	390
Chrysene*	2100000	ug/kg		240	77	490	60	3500 cn	2200	25	680
Dibenzof[a,h]anthracene*	2100	ug/kg		67	21	110	14 J	880 cn	490	< 17	180
Fluoranthene	3000000	ug/kg		320	130	650	74	4400 cn	2700	32	830
Fluorene	3000000	ug/kg		5.3 J	4.1 J	11 J	< 20	99 J cn	46	< 17	11 J
Indeno[1,2,3-cd]pyrene*	21000	ug/kg		250	74	380	53	2200 cn	1300	9.1 J	600
Naphthalene	17000	ug/kg		< 17	< 19	13 J	< 20	77 J cn	40	< 17	< 18
Phenanthrene	2300000	ug/kg		85	61	150	19 J	1100 cn	530	11 J	210
Pyrene	2300000	ug/kg		320	110	620	76	4200 cn	2400	34	860

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024														
Parameter	MDE Non-Residential Cleanup Standard	Units	Location ID		RB3-20N		RB3-20N		RB3-0		RB3-20S					
			Depth (ft)	Sample ID	RB-3-20N-0-0.5	RB-3-20N-0.5-2	0-0.5	RB-3-0	RB-3-20S-0-0.5	0-0.5						
											Sample Date	5/13/2024	5/13/2024	5/13/2024	5/13/2024	5/13/2024
Acenaphthene	4500000	ug/kg	5.7 J	6.8 J	2000 cn	1200 cn					26	14 J				
Acenaphthylene	NVL	ug/kg	8.8 J	< 19	480 cn	610 cn					14 J	< 19				
Anthracene	23000000	ug/kg	12 J	11 J	2800 cn	3900 cn					38	17 J				
Benzof[a]anthracene*	21000	ug/kg	94	50	12000 cn	11000 cn					290	110				
Benzof[a]pyrene*	2100	ug/kg	120	58	15000 cn	13000 cn					370	160				
Benzof[b]fluoranthene*	21000	ug/kg	240	96	19000 cn	16000 cn					530	280				
Benzof[g,h,i]perylene	NVL	ug/kg	120	56	10000 cn	9400 cn					320	140				
Benzof[k]fluoranthene*	210000	ug/kg	59	26	5600 cn	6300 cn					160	72				
Chrysene*	2100000	ug/kg	120	59	12000 cn	11000 cn					330	140				
Dibenzof[a,h]anthracene*	2100	ug/kg	32	19	2600 cn	2300 cn					75	35				
Fluoranthene	3000000	ug/kg	100	86	18000 cn	16000 cn					400	130				
Fluorene	3000000	ug/kg	< 18	4.2 J	650 cn	460 cn					10 J	6.9 J				
Indeno[1,2,3-cd]pyrene*	21000	ug/kg	100	43	9200 cn	8300 cn					260	110				
Naphthalene	17000	ug/kg	< 18	< 19	330 cn	220 cn					< 21	< 19				
Phenanthrene	2300000	ug/kg	31	51	7700 cn	5600 cn					140	65				
Pyrene	2300000	ug/kg	96	74	15000 cn	13000 cn					190	120				

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Source		GTA Site Management Plan 2017											
Location ID		CD-GTA-04	CD-GTA-04	CD-GTA-07	CD-GTA-07	SW-GTA-01	SW-GTA-01	SW-GTA-03	SW-GTA-03	SP-GTA-02	SP-GTA-02	SP-GTA-03	SP-GTA-03
Depth (ft)		0-1	4-5	0-1	4-5	0-1	4-5	0-1	4-5	0-1	4-5	0-1	4-5
Sample ID		--	--	--	--	--	--	--	--	--	--	--	--
Sample Date		9/22/2014	9/22/2014	9/22/2014	9/22/2014	10/22/2015	10/22/2015	9/22/2015	9/22/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015
Parameter	MDE Non-Residential Cleanup Standard	Units											
Acenaphthene	4500000	ug/kg											
Acenaphthylene	NVL	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	23000000	ug/kg	280	ND	220	ND	ND	ND	ND	ND	ND	ND	ND
Benzofluoranthene*	21000	ug/kg	1800	ND	2100	ND	ND	100	370	ND	ND	690	ND
Benzofluoranthene*	2100	ug/kg	2000	ND	2300	ND	ND	1200	1500	ND	ND	13,000	ND
Benzofluoranthene*	21000	ug/kg	2700	ND	3800	ND	ND	1800	1500	ND	ND	1,300	ND
Benzofluoranthene*	NVL	ug/kg	1500	ND	1900	ND	ND	870	1300	ND	ND	350	ND
Benzofluoranthene*	210000	ug/kg	ND	ND	1300	ND	ND	580	1500	ND	ND	460	ND
Chrysene*	2100000	ug/kg	1800	ND	2300	ND	ND	1000	1500	ND	ND	730	ND
Dibenzofluoranthene*	2100	ug/kg	3400	ND	500	ND	ND	210	480	ND	ND	ND	ND
Fluoranthene	3000000	ug/kg	2100	ND	ND	ND	ND	1600	2200	ND	ND	570	ND
Fluorene	3000000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene*	21000	ug/kg	1600	ND	200	ND	ND	900	1500	ND	ND	370	ND
Naphthalene	17000	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2300000	ug/kg	1100	ND	850	ND	ND	500	1200	ND	ND	250	ND
Pyrene	2300000	ug/kg	2300	ND	ND	ND	ND	1400	1200	ND	ND	520	ND

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Parameter	MDE Non-Residential Cleanup Standard	Units	GTA Site Management Plan 2017												GTA Phase II ESA 2022	
			Source	Location ID	Depth (ft)	Sample ID	SP-GTA-03	SP-GTA-04	SP-GTA-04	SP-GTA-05	SP-GTA-05	SP-GTA-06	SP-GTA-06	SP-GTA-06	SA-1F	
							4-5	0-1	4-5	0-1	4-5	0-1	4-5	0-1	0-1	1-19
			Sample Date	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	9/15/2022	9/15/2022
Acenaphthene	4500000	ug/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	< 11
Acenaphthylene	NVL	ug/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 11	< 11
Anthracene	23000000	ug/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	< 11
Benzofluoranthene*	21000	ug/kg		ND	180	ND	ND	230	ND	1,100	ND	ND	ND	ND	110	< 11
Benzofluoranthene*	2100	ug/kg		ND	230	ND	250	ND	1,600	ND	ND	ND	ND	ND	150	< 11
Benzofluoranthene*	21000	ug/kg		ND	390	ND	550	ND	1,800	ND	ND	ND	ND	ND	140	< 11
Benzofluoranthene*	NVL	ug/kg		ND	ND	ND	210	ND	800	ND	ND	ND	ND	ND	110	< 11
Benzofluoranthene*	210000	ug/kg		ND	ND	ND	ND	ND	760	ND	ND	ND	ND	ND	110	< 11
Chrysene*	2100000	ug/kg		ND	350	ND	1,000	ND	1,000	ND	ND	ND	ND	ND	130	< 11
Dibenzofluoranthene*	2100	ug/kg		ND	ND	ND	ND	ND	220	ND	ND	ND	ND	ND	34	< 11
Fluoranthene	3000000	ug/kg		ND	220	ND	310	ND	1,700	ND	ND	ND	ND	ND	160	< 11
Fluorene	3000000	ug/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 11	< 11
Indeno[1,2,3-cd]pyrene*	21000	ug/kg		ND	ND	ND	210	ND	1,200	ND	ND	ND	ND	ND	110	< 11
Naphthalene	17000	ug/kg		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 11	< 11
Phenanthrene	2300000	ug/kg		ND	ND	ND	ND	ND	1,300	ND	ND	ND	ND	ND	55	< 11
Pyrene	2300000	ug/kg		ND	230	ND	300	ND	1,600	ND	ND	ND	ND	ND	160	< 11

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

Source		GTA Phase II ESA 2022									
Location ID		SA1-H		SA2-E		SA4-E		SA4-M			
Depth (ft)		0-1		0-1		0-1		0-1			
Sample ID		9/9/2022		9/9/2022		9/8/2022		9/8/2022			
Sample Date		9/9/2022		9/9/2022		9/9/2022		9/8/2022			
Parameter	MDE Non-Residential Cleanup Standard	Units									
Acenaphthene	4500000	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Acenaphthylene	NVL	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Anthracene	23000000	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Benzo[a]anthracene*	21000	ug/kg		13	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Benzo[a]pyrene*	2100	ug/kg		15	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Benzo[b]fluoranthene*	21000	ug/kg		14	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Benzo[g,h,i]perylene	NVL	ug/kg		11	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Benzo[k]fluoranthene*	210000	ug/kg		12	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Chrysene*	2100000	ug/kg		12	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Dibenzof[a,h]anthracene*	2100	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Fluoranthene	3000000	ug/kg		16	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Fluorene	3000000	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Indeno[1,2,3-cd]pyrene*	21000	ug/kg		11	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Naphthalene	17000	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Phenanthrene	2300000	ug/kg		< 9.5	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11
Pyrene	2300000	ug/kg		16	< 11	< 11	< 11	< 9.1	< 10	< 9.4	< 11

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

		GTA Phase II ESA 2022									
		Source	Location ID		SA7-J		SA7-K		SA10-A		
		Depth (ft)	0-1	1-5	0-1	1-11	0-1	1-11	0-1	1-10	
		Sample ID									
		Sample Date	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	
Parameter	MDE Non-Residential Cleanup Standard	Units									
Acenaphthene	4500000	ug/kg	< 10	< 11	< 9.1	< 9.1	< 9.8	< 11	< 9.8	< 11	
Acenaphthylene	NVL	ug/kg	< 10	< 11	ND	ND	< 9.8	< 11	< 9.8	< 11	
Anthracene	23000000	ug/kg	< 10	< 11	< 9.1	36	< 9.8	< 11	< 9.8	< 11	
Benzof[a]anthracene*	21000	ug/kg	< 10	< 11	< 9.1	30	< 9.8	< 11	< 9.8	< 11	
Benzof[a]pyrene*	2100	ug/kg	< 10	< 11	43	22	< 9.8	< 11	< 9.8	< 11	
Benzof[b]fluoranthene*	21000	ug/kg	< 10	< 11	110	18	< 9.8	< 11	< 9.8	< 11	
Benzof[g,h,i]perylene	NVL	ug/kg	< 10	< 11	49	14	< 9.8	< 11	< 9.8	< 11	
Benzof[k]fluoranthene*	210000	ug/kg	< 10	< 11	55	21	< 9.8	< 11	< 9.8	< 11	
Chrysene*	2100000	ug/kg	< 10	< 11	85	28	< 9.8	< 11	< 9.8	< 11	
Dibenzof[a,h]anthracene*	2100	ug/kg	< 10	< 11	12	< 11	< 9.8	< 11	< 9.8	< 11	
Fluoranthene	3000000	ug/kg	< 10	< 11	48	79	< 9.8	< 11	< 9.8	< 11	
Fluorene	3000000	ug/kg	< 10	< 11	< 9.1	20	< 9.8	< 11	< 9.8	< 11	
Indeno[1,2,3-cd]pyrene*	21000	ug/kg	< 10	< 11	39	14	< 9.8	< 11	< 9.8	< 11	
Naphthalene	17000	ug/kg	< 10	< 11	< 9.1	< 11	< 9.8	< 11	< 9.8	< 11	
Phenanthrene	2300000	ug/kg	< 10	< 11	15	100	< 9.8	< 11	< 9.8	< 11	
Pyrene	2300000	ug/kg	< 10	< 11	58	63	< 9.8	< 11	< 9.8	< 11	

Table 3
Soil Data - PAHs
Bauxite Interim Route Distribution Line
Frederick, MD

NOTES:

A = Results reported in Site Management Plan dated June 5, 2017, sample collection date not reported.

3100 Exceeds MDE Non-Residential Soil Cleanup Standard

3100

NVL = No value listed

*Carcinogenic chemicals with a Mutagenic Mode of Action (MOA)

NA	Sample not submitted for specified method
	Sample not collected (boring refusal)

< = Analyte not detected, value represents reporting limit.

1 = Result is less than the reporting limit, but greater than or equal to the method detection limit

ND - Parameter not detected, reporting limit not specified

ND = Parameter not detected, reporting limit not specified

F1 = MS and/or MSD recovery exceeds co

F2 = MS/MSD RPD exceeds control limits

ND - Parameter not detected

cn = see case narrative
5/10/2024, (410-170119-1-1)
The following samples were outside acceptance limits (low biased) on the required criteria: B-22-4-5-G (410-170307-1), B-22-14-15-G (410-170307-1), B-22-0-1-G (410-170307-3), B-22-1-5-C (410-170307-4), B-22-5-15-C (410-170307-5).
The following samples were outside acceptance limits (high biased) on the required criteria: B-13-5-14-C (410-170119-15). The recovery is 52/204 (410-170307-1).
The following samples were received at the laboratory outside the required temperature criteria: B-22-4-5-G (410-170307-1), B-22-14-15-G (410-170307-1), B-22-0-1-G (410-170307-3), B-22-1-5-C (410-170307-4), B-22-5-15-C (410-170307-5).

B-20-4-5-G (410-170307-6), B-20-13-14-G (410-170307-7), B-20-0-1-G
Method 8270E: The following sample was diluted due to the nature of the sample matrix: B-8-1-5-C (410-170307-15). Elevated reporting limits (RLs) are provided.
5/6/2024 (410-170644-1)
Method 8270E: The following sample was diluted due to the nature of the sample matrix: B-7-0-1-G (410-170644-6). Elevated reporting limits (RLs) are provided.
5/7/2024 (410-170880-1)
Method 8270E: The following sample was diluted due to the nature of the sample matrix: B-6-0-1-G (410-170880-1). Elevated reporting limits (RLs) are provided.
5/8/24 (410-171083-1)
The following matrix spike (MS) sample: B-2-1-5-C-MS (410-171083-10[MS]). The elevated reporting limits (RLs) are provided.
5/13/2024 (410-171693-1)
Method 8270E: The following samples were diluted due to the nature of the sample matrix: RB-1-0-0-0.5 (410-171693-1),
RB-2-0-0-0.5 (410-171693-9), RB-3-0-0-0.5 (410-171693-15) and RB-3-0-0-5.2 (410-171693-16). Elevated reporting limits (RLs) are provided.
5/14/2024 (410-171693-1)
Method 8270E: The following sample was diluted due to the nature of the sample matrix: RB-7-20S-0-0.5 (410-171877-19). Elevated reporting limits (RLs) are provided.

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024														
Location ID		B-4	B-4	B-4	B-6	B-6	B-6	B-6	B-6	B-7/ MW- 2	B-7/ MW- 2	B-7/ MW- 2	B-8	B-8	B-8	B-11
Depth (ft)		0-1	1-5	5-14	0-1	1-5	5-15	0-1	1-5	1-5	5-15	0-1	1-5	5-15	0-1	
Sample ID		B-4-0-1-G	B-4-1-5-C	B-4-5-14-C	B-6-0-1-G	B-6-1-5-C	B-6-5-15-G	B-7-0-1-G	B-7-1-5-C	B-7-5-13-5-C	B-8-0-1-G	B-8-1-5-C	B-8-5-15-C	B-11-0-1-G		
Sample Date		5/10/2024	5/10/2024	5/10/2024	5/7/24	5/7/24	5/7/24	5/6/24	5/6/24	5/6/24	5/6/24	5/2/2024	5/2/2024	5/2/2024	5/7/2024	
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units													
Antimony	47	NVL	mg/kg	0.095	0.12 J	0.19 J	0.18 J	0.11 J	0.015 J	0.18 J	0.16 J	0.18 J	0.11 J	0.67	0.13 J	0.14 J
Arsenic	3	11	mg/kg	1.8	3	4.5	4.7	5.4	7.1	3.8	12	12	3.3	6.7	6.8	5.5
Beryllium	230	NVL	mg/kg	0.58	0.61	3.6	1.3	2	2.8	0.61	1.3	3	1.1	1.3	1.3	2.2
Cadmium	98	NVL	mg/kg	0.066 J	0.16	0.16	0.14	0.087 J	0.21	0.16	0.078 J	0.13	0.085	0.84	0.081 J	0.63
Tot Chromium ¹	NVL	42	mg/kg	16	20	40	23	22	25	16	34	20	24	31	24	35
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	< 0.52	< 0.51	< 0.61	NA	NA	NA	NA	NA	NA	NA
Copper	4700	NVL	mg/kg	9.9	13	28	17	27	32	14	49	40	37	25	24	23
Lead	800	NVL	mg/kg	6.9 ^2	14	12	18	16	8.9	11	18	28	10	160	13	39
Mercury	4.6	NVL	mg/kg	0.051 J	0.027 J	0.034 J	0.033	0.037 J	0.040 J	0.031 J	0.22	0.065 J	0.027 J	0.022 J	0.059 J	0.028 J
Nickel	2200	NVL	mg/kg	16	17	49	29	55 ^2	71 ^2	22	39	64	30	53	29	44 ^2
Selenium	580	NVL	mg/kg	0.088 J	0.16 J	< 0.52	0.17 J	0.18 J	< 0.45	0.19 J	0.30 J	0.20 J	0.15 J	0.42	0.15 J	0.25 J
Silver	580	NVL	mg/kg	< 0.085	< 0.094	< 0.13	< 0.1	< 0.12	< 0.11	< 0.098	< 0.13	< 0.13	< 0.084	0.031 J	< 0.1	< 0.89
Thallium	1.2	4.6	mg/kg	0.072 J	0.077	0.15	0.17	0.17	0.12	0.088 J	0.3	0.27	0.11	0.1	0.17	0.25
Zinc	35000	NVL	mg/kg	31	41	91	59	92	160	42	66	84	67	140	50	170
Fluoride ²	47,000	NVL	mg/kg	33	15	110	53	27	130	29	1.6	< 1.4 F1	26	180	1.8	53
Cyanide	15	NVL	mg/kg	< 0.58 ^+ cn	< 0.052 ^+ cn	< 0.69 ^+ cn	0.28 J	< 0.56	< 0.65	0.29 J	0.33 J	< 0.68	< 0.54	< 0.51	< 0.63	< 0.61

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024											
Location ID		B-11	B-11	B-14	B-14	DUP-4	B-14	B-15/ MW-5	B-15/ MW-5	B-16	B-16	B-16	B-16
Depth (ft)		1-5	5-15	0-1	1-5	1-5	5-15	0-1	1-5	0-1	1-5	1-5	5-15
Sample ID		B-11-1-5-C	B-11-5-15-C	B-14-0-1-G	B-14-1-5-C	Dup 4	B-14-5-15-C	B-15-0-1-G	B-15-1-5-C	B-16-0-1-G	B-16-1-5-C	B-16-5-15-G	
Sample Date		5/7/2024	5/7/2024	5/10/24	5/10/24	5/10/24	5/10/24	5/6/24	5/6/24	5/9/24	5/9/24	5/9/24	
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units										
Antimony	47	NVL	mg/kg	0.12 J	0.15 J F1 F2	0.13 J	0.24	< 0.21	0.19 J F2	0.16 J	0.13 J	0.20 J	0.32
Arsenic	3	11	mg/kg	7	6.2 F2	2.7	5.4	1.9	13 F2 F1	6	5.8	8.2	6.5
Beryllium	230	NVL	mg/kg	1.9	3.3 F2	0.46	0.39	0.069 J	2.4 F1	1.2	1.1	2.5	1.3 B
Cadmium	98	NVL	mg/kg	0.11	0.22 F2	0.039 J	< 0.11	< 0.10	0.20	0.12	0.12	0.13	0.11
Tot Chromium ¹	NVL	42	mg/kg	31	25 F2	18	48	17	24 F2	35	25	21	27
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA	NA	NA	3.6	< 0.5	< 0.5	NA
Copper	4700	NVL	mg/kg	24	23 F2	6.7	14	1.3	19 F1	17	26	30	15
Lead	800	NVL	mg/kg	16	17 F1 F2	11	15	4.6	27 F2	20	15	17	21
Mercury	4.6	NVL	mg/kg	0.035 J	0.050 J	0.063 J	0.031 J	0.036 J	0.031 J	0.032 J	< 0.068	< 0.077	0.043 J
Nickel	2200	NVL	mg/kg	36 ^2	39	13	14	1.6	28 F1	22	25	37	25
Selenium	580	NVL	mg/kg	0.25 J	0.11 J F2	0.15 J	0.22 J	< 0.41	0.16 J	0.35 J	0.30 J	0.31 J	0.38
Silver	580	NVL	mg/kg	< 0.095	0.085 J F2	< 0.094	< 0.11	< 0.10	< 0.10	0.056 J	< 0.11	< 0.12	0.059 J
Thallium	1.2	4.6	mg/kg	0.2	0.24 F2	0.11	0.24	< 0.10	0.30	0.21	0.17	0.22	0.22
Zinc	35000	NVL	mg/kg	78	69 F2	36	31 J	< 31	58 F1	65	64	79	65
Fluoride ²	47,000	NVL	mg/kg	8.6	33 F1	33	1.3	< 1.2	< 1.2 F1	6.6	29	4.6	7.6
Cyanide	15	NVL	mg/kg	< 0.59	0.3 J	< 0.57 ^+ + cn	< 0.58 ^+ + cn	< 0.59 ^+ + cn	< 0.57 ^+ + cn	0.52 J	< 0.54	< 0.63	< 0.54
													< 0.68

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024										
		Location ID	RB1-20N	RB1-20N	DUP-5	RB1-0	RB1-0	RB1-0	RB1-20S	RB1-20S	RB1-20S	RB2-0
Depth (ft)												
Sample ID												
Sample Date												
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units	RB1-20N	DUP-5	RB1-0	RB1-0	RB1-0	RB1-20S	RB1-20S	RB1-20S	RB2-0
				0.5-2	5/13/24	0.5-2	0.5-2	0.5-2	0.5-2	0.5-2	0.5-2	0.5-2
				RB-1-20N-0-0.5	5/13/24	RB-1-20N-0-0.5	RB-1-20N-0-0.5	RB-1-20N-0-0.5	RB-1-20S-0.5-2	RB-1-20S-0.5-2	RB-1-20S-0.5-2	RB-2-0-0-0.5-2
				5/13/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24
Antimony	47	NVL	mg/kg	0.23	0.21	< 0.15	0.088 J	0.071 J	0.16 J	0.30	0.19	0.31
Arsenic	3	11	mg/kg	5.3	7.5	1.9	6.9	4.3	5.9	4.8	6.6	3.4
Beryllium	230	NVL	mg/kg	0.91	1.3	0.27	0.7	0.49	1.3	1.1	0.91	0.64
Cadmium	98	NVL	mg/kg	< 0.097	< 0.10	0.037 J	0.065 J	0.053 J	0.12	0.40	0.044 J	0.63
Tot Chromium ¹	NVL	42	mg/kg	38	93	10	13	10	27	28	22	18
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	4700	NVL	mg/kg	19	17	5.3	7.4	6.1	17	21	25	17
Lead	800	NVL	mg/kg	17	17	4.1	6.8	5.2	11	19	20	23
Mercury	4.6	NVL	mg/kg	0.093	0.082	< 0.065	0.023 J	0.026 J	0.053 J	0.046 J	0.073	0.045 J
Nickel	2200	NVL	mg/kg	23 ^2	22	9.7	15 ^2	11 ^2	29	29	34 ^2	21 ^2
Selenium	580	NVL	mg/kg	0.37 J	0.45	< 0.30	0.091 J	< 0.33	0.16 J	0.13 J	0.30 J	< 0.36
Silver	580	NVL	mg/kg	< 0.097	< 0.10	< 0.075	< 0.071	< 0.082	< 0.098	< 0.095	< 0.093	< 0.091
Thallium	1.2	4.6	mg/kg	0.22	0.23	< 0.075	0.096	0.057 J	0.16	0.22	0.22	0.091
Zinc	35000	NVL	mg/kg	45	54	16 J	21	18 J	52	65	43	73
Fluoride ²	47,000	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	15	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024									
Location ID		RB2-20S		RB2-20S		RB3-20N		RB3-0		RB3-0	
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units	Depth (ft)		Sample ID		Sample Date		Sample Date	
				Sample ID		Sample Date		Sample Date		Sample Date	
				Sample Date		Sample Date		Sample Date		Sample Date	
				Sample Date		Sample Date		Sample Date		Sample Date	
				Sample Date		Sample Date		Sample Date		Sample Date	
				Sample Date		Sample Date		Sample Date		Sample Date	
Antimony	47	NVL	mg/kg	< 0.18	0.12 J	0.18	0.11 J	0.65	0.57	< 0.24	0.087 J
Arsenic	3	11	mg/kg	2.2	4.5	4.6	2.4	4.7	3.9	3.2	4.5
Beryllium	230	NVL	mg/kg	0.30	0.46	0.80	0.4	0.88	0.99	0.39	0.46
Cadmium	98	NVL	mg/kg	< 0.090	0.15	0.12	0.086	0.65	0.59	< 0.12	0.033 J
Tot Chromium ¹	NVL	42	mg/kg	11	11	20	15	36	49	18	20
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA	0.20 J	<0.17	NA	NA
Copper	4700	NVL	mg/kg	6.4	6.5	15	6.5	49	59	7.3	8.6
Lead	800	NVL	mg/kg	3.3	8.5	31	8.8	92	100	8.9	8.3
Mercury	4.6	NVL	mg/kg	< 0.061	0.021 J	0.040 J	0.027 J	0.030 J	0.031 J	< 0.071	0.036 J
Nickel	2200	NVL	mg/kg	9.7	14 ^2	19 ^2	11	27	26	12	21
Selenium	580	NVL	mg/kg	< 0.36	0.11 J	0.12 J	0.13 J	< 0.45	< 0.39	< 0.47	0.098 J
Silver	580	NVL	mg/kg	< 0.081	< 0.081	< 0.083	< 0.076	< 0.11	< 0.098	< 0.12	0.22
Thallium	1.2	4.6	mg/kg	< 0.090	0.059 J	0.15	0.038 J	0.12	0.090 J	0.059 J	0.088
Zinc	35000	NVL	mg/kg	12 J	21 J	46	17 J	170	190	24 J	26
Fluoride ²	47,000	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	15	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source			GTA Site Management Plan 2017										GTA Phase II 2022		
Location ID			SP-GTA-04	SP-GTA-04	SP-GTA-04	SP-GTA-05	SP-GTA-05	SP-GTA-06	SP-GTA-06	SP-GTA-06	SP-GTA-06	SAI-F			
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units	Depth (ft)		Sample ID		Sample Date		SP-GTA-04		SP-GTA-04			
				0-1	4-5	0-1	4-5	0-1	4-5	0-1	4-5	0-1	4-5	0-1	1-17
			11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015	11/12/2015			
Antimony	47	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.1	< 2.2	
Arsenic	3	11	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	4.8	
Beryllium	230	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	1.3	
Cadmium	98	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 4.3	
Tot Chromium ¹	NVL	42	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	33	
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Copper	4700	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.6	18	
Lead	800	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.9	8.5	
Mercury	4.6	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.088	< 0.087	
Nickel	2200	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	38	
Selenium	580	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.43	
Silver	580	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.43	
Thallium	1.2	4.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.43	
Zinc	35000	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	41	57	
Fluoride ²	47,000	NVL	mg/kg	31	18	170	15	160	NA	100	200	NA	NA	NA	
Vanadium	15	NVL	mg/kg	NA	NA	NA	0.081	0.59	3.8	2	0.79	NA	NA	NA	

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		GTA Phase II 2022																			
Location ID		SA1-H			SA2-E		SA4-E			SA4-M			SA7-J								
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units	0-1		1-19		0-1		1-15		0-1		1-15		0-1		1-5			
				9/9/2022		9/9/2022		9/9/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/9/2022		9/9/2022	
				Sample Date		Sample Date		Sample Date		Sample Date		Sample Date		Sample Date		Sample Date		Sample Date		Sample Date	
				Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)		Depth (ft)	
				Sample ID		Sample ID		Sample ID		Sample ID		Sample ID		Sample ID		Sample ID		Sample ID		Sample ID	
Antimony	47	NVL	mg/kg	< 2.5	< 2.9	< 2.9	< 1.9	< 2.5	< 2.5	< 2.5	< 2.5	< 2.9	< 2.2	< 3.1							
Arsenic	3	11	mg/kg	5.6	6.6	7.6	3.2	6	1.8	4.8	5.5	5.1	5.1	5.1							
Beryllium	230	NVL	mg/kg	1.7	1.5	1.5	1.2	2.4	< 0.49	1.9	1.4	0.99	1.4	0.99							
Cadmium	98	NVL	mg/kg	< 0.49	< 0.58	< 0.59	< 0.38	< 0.49	< 0.49	< 0.49	< 0.58	< 0.44	< 0.62	< 0.62							
Tot Chromium ¹	NVL	42	mg/kg	32	16	29	37	29	8.5	21	21	17	17	17							
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA							
Copper	4700	NVL	mg/kg	20	22	21	14	25	6.2	13	31	27	27	27							
Lead	800	NVL	mg/kg	12	11	19	13	16	3.9	13	7.9	8.8	8.8	8.8							
Mercury	4.6	NVL	mg/kg	< 0.099	0.12	< 0.12	0.077	0.098	< 0.099	< 0.12	< 0.087	< 0.12	< 0.12	< 0.12							
Nickel	2200	NVL	mg/kg	40	34	36	29	44	8.3	52	30	25	25	25							
Selenium	580	NVL	mg/kg	< 0.49	< 0.58	< 0.59	< 0.38	< 0.49	< 0.49	< 0.58	< 0.44	< 0.62	< 0.62	< 0.62							
Silver	580	NVL	mg/kg	< 0.49	< 0.58	< 0.59	< 0.38	< 0.49	< 0.49	< 0.58	< 0.44	< 0.62	< 0.62	< 0.62							
Thallium	1.2	4.6	mg/kg	< 0.49	< 0.58	< 0.59	< 0.38	< 0.49	< 0.49	< 0.58	< 0.44	< 0.62	< 0.62	< 0.62							
Zinc	35000	NVL	mg/kg	75	50	65	71	78	85	110	42	34	34	34							
Fluoride ²	47,000	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA							
Cyanide	15	NVL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA							

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

Source		GTA Phase II 2022							
Location ID		SA7-K			SA10-A				
Depth (ft)		0-1		1-11		0-1		1-10	
Sample ID		9/9/2022							
Sample Date		9/9/2022							
Sample Date		9/9/2022							
Parameter	MDE Non-Residential Cleanup Standard	Anticipated Typical Concentrations (CMBG)	Units						
Antimony	47	NVL	mg/kg	< 2.5	< 2.3	< 2.6	< 2.8		
Arsenic	3	11	mg/kg	4.3	11	6.2	5.4		
Beryllium	230	NVL	mg/kg	1.00	2.5	1.1	2.3		
Cadmium	98	NVL	mg/kg	< 0.50	< 0.46	< 0.52	< 0.56		
Tot Chromium ¹	NVL	42	mg/kg	21	31	34	17		
Chromium (VI)	6.3	NVL	mg/kg	NA	NA	NA	NA		
Copper	4700	NVL	mg/kg	13	25	13	20		
Lead	800	NVL	mg/kg	20	22	17	14		
Mercury	4.6	NVL	mg/kg	< 0.10	< 0.093	< 0.10	< 0.11		
Nickel	2200	NVL	mg/kg	21	44	23	30		
Selenium	580	NVL	mg/kg	< 0.50	< 0.56	0.53	< 0.56		
Silver	580	NVL	mg/kg	< 0.50	< 0.56	< 0.52	< 0.56		
Thallium	1.2	4.6	mg/kg	< 0.50	< 0.56	< 0.52	< 0.56		
Zinc	35000	NVL	mg/kg	71	70	49	54		
Fluoride ²	47,000	NVL	mg/kg	NA	NA	NA	NA		
Cyanide	15	NVL	mg/kg	NA	NA	NA	NA		

Table 4
Soil Data - Inorganics
Bauxite Interim Route Distribution Line
Frederick, MD

NOTES:	
A = Results reported in Site Management Plan dated June 5, 2017, sample collection date not reported.	
4.6	Exceeds MDE Non-Residential Soil Cleanup Standard
7.1	Exceeds Anticipated Typical Concentrations for Central Maryland (CMBG)
CMBG = Western Maryland Background	
NVL = No value listed	
¹ Analytical results for total chromium are compared to the MDE	
² Soil Cleanup	
< = Analyte not detected, value represents reporting limit.	
J = Result is less than reporting limit but greater than method detection limit.	
NA	Sample not submitted for specified method
	Sample not collected (boring refusal)
J =	Result is less than reporting limit but greater than method detection limit
F1 =	MS and/or MSD recovery exceeds control limits.
F2 =	MS/MSD RPD exceeds control limits
^2 =	Calibration Blank (ICB and/or CCB) is outside of acceptable limits.
B =	Compound was found in the blank and sample.
*+ =	LCS and/or LCSD is outside acceptance limits, high biased.
cn =	See case narrative below
5/10/2024 (410-171513-1)	
Method 9012B: The laboratory control sample (LCS) for preparation	
batch 410-505456 and analytical batch 410-506045 recovered	

Table 5
Soil Data - PCBs and TPH DRO
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024											
Location ID		B-11	B-11	B-11	B-11	B-14	B-14	DUP-4	B-14	B-15/ MW-5	B-15/ MW-5	B-15/ MW-5	B-16
Depth (ft)		0-1	1-5	5-15	5-15	0-1	1-5	1-5	5-15	0-1	1-5	5-15	0-1
Sample ID		B-11-0-1-G	B-11-1-5-C	B-11-5-15-C	B-11-5-15-C	B-14-0-1-G	B-14-1-5-C	DUP 4	B-14-5-15-C	B-15-0-1-G	B-15-1-5-C	B-15-5-15-C	B-16-0-1-G
Sample Date		5/7/2024	5/7/2024	5/7/2024	5/7/2024	5/10/24	5/10/24	5/10/24	5/10/24	5/6/24	5/6/24	5/6/24	5/9/24
Parameter	MDE Non-Residential Cleanup Standard	Units											
Aroclor 1016	5100	< 22	< 21 cn	< 23 cn	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
Aroclor 1221	830	< 22	< 21	< 23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
Aroclor 1232	720	< 22	< 21	< 23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
Aroclor 1242	950	< 22	< 21	< 23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
Aroclor 1248	950	14 J	97	< 23	< 20	< 20	< 20	< 20	< 20	< 20	120	< 22	< 19
Aroclor 1254	970	< 22	< 21	< 23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
Aroclor 1260	990	< 22	< 21	< 23 cn	< 20	< 20	< 20	< 20	< 20 F1	< 20	< 20	< 22	< 19
Total PCBs	940	14 J	97	< 23 cn	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 22	< 19
TPH DRO	620000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5
Soil Data - PCBs and TPH DRO
Bauxite Interim Route Distribution Line
Frederick, MD

Source		ERM Phase II ESA (Bauxite 3) 2024									
		Location ID	B-16	B-16	B-16	RB1-20N	RB1-0	RB2-20N	RB2-20S	RB3-0	RB3-20S
Parameter	MDE Non-Residential Cleanup Standard	Units	1-5	5-15	5-15	0-0.5	0.5-2	0.5-2	0.5-2	0.5-2	0-0.5
			B-16-1.5-C	B-16-5-15-C	B-16-5-15-C	RB-1-20N-0-0.5	RB-1-0-0.5-2.0	RB-2-20N-0.5-2	RB-2-20S-0.5-2	RB-3-0-0.5-2	RB-3-20S-0-0.5
			5/9/24	5/9/24	5/9/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24	5/13/24
			Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
Aroclor 1016	5100	ug/kg	< 20	< 23 F2 F1	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Aroclor 1221	830	ug/kg	< 20	< 23	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Aroclor 1232	720	ug/kg	< 20	< 23	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Aroclor 1242	950	ug/kg	< 20	< 23	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Aroclor 1248	950	ug/kg	< 20	< 23	< 20	< 20	< 18	< 20	21	210	< 21
Aroclor 1254	970	ug/kg	< 20	< 23	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Aroclor 1260	990	ug/kg	< 20	< 23 F2 F1	< 20	< 20	< 18	< 20	< 18	< 200	< 21
Total PCBs	940	ug/kg	< 20	< 23 F2 F1	< 20	< 20	< 18	< 20	21	210	< 21
TPH DRO	620000	ug/kg	NA	NA	9700 J	9700 J	9900 J	8000 J	10000 J	220,000	< 150000 cn

Table 6
Soil Data - Pesticide/Herbicide
Bauxite Interim Route Distribution Line
Frederick, MD

ERM Phase II ESA (Bauxite 3) 2024										GTA Phase II ESA 2022	
Parameter	MDE Non-Residential Cleanup Standard	Source		ERM Phase II ESA (Bauxite 3) 2024				RB3-20S 0-0.5 RB-3-20S-0-0.5 5/13/2024	0-1	SA1-F 1-17	
		Location ID Depth (ft) Sample ID Sample Date	RB1-20N 0-0.5 RB-1-20N-0-0.5 5/13/2024	RB1-20S 0-0.5 RB-1-20S-0-0.5 5/13/2024	RB2-0 0-0.5 RB-2-0-0-0.5 5/13/2024	RB3-20N 0-0.5 RB-3-20N-0-0.5 5/13/2024					
Aldrin	180										
Alpha-BHC	360										
Beta-BHC	1300										
Delta-BHC	2500										
Gamma-BHC (Lindane)	NVL										
cis-Chlordane											
trans-Chlordane											
Chlordane (n.o.s.)	7700										
4,4'-DDD	2500										
4,4'-DDE	9300										
4,4'-DDT	8500										
Dieldrin	140										
Endosulfan I	NVL										
Endosulfan II	NVL										
Endosulfan Sulfate	NVL										
Endrin	25000										
Endrin aldehyde	NVL										
Endrin ketone											
Heptachlor	630										
Heptachlor epoxide	330										
Methoxychlor											
Toxaphene	2100										
2,4-D	960000										
2,4-DB	NVL										
2,4,5-TP (Silvex)	660000										
2,4,5-T	NVL										
Dalapon	2500000										
Dicamba	NVL										
Dichloroprop	NVL										
Dinoseb	82000										
MCPA	NVL										
MCPP	NVL										
Pentachloronhenol	NVL										

Table 6
Soil Data - Pesticide/Herbicide
Bauxite Interim Route Distribution Line
Frederick, MD

Source		GTA Phase II ESA 2022											
	Parameter	MDE Non-Residential Cleanup Standard	Units	SA1-H		SA2-E		SA4-E		SA4-M		SA7-J	
				0-1	1-19	0-1	4-5	0-1	1-15	0-1	1-15	0-1	1-5
				9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022	9/9/2022
				Sample ID	Sample Date	Sample ID	Sample Date	Sample ID	Sample Date	Sample ID	Sample Date	Sample ID	Sample Date

Table 6
Soil Data - Pesticide/Herbicide
Bauxite Interim Route Distribution Line
Frederick, MD

		Source		GTA Phase II 2022					
		Location ID	Sample Date	SA7-K		SA10-A			
		Depth (ft)		0-1	1-11	0-1	1-10		
		Sample ID		9/9/2022	9/9/2022	9/9/2022	9/9/2022		
Parameter	MDE Non-Residential Cleanup Standard	Units							
Aldrin	180	ug/kg	< 21	NA		< 4.4	NA		
Alpha-BHC	360	ug/kg	< 21	NA		< 4.4	NA		
Beta-BHC	1300	ug/kg	< 21	NA		< 4.4	NA		
Delta-BHC	2500	ug/kg	< 21	NA		< 4.4	NA		
Gamma-BHC (Lindane)	NVL	ug/kg	NA	NA		NA	NA		
dis-Chlordane			< 21	NA		< 4.4	NA		
trans-Chlordane			< 21	NA		< 4.4	NA		
Chlordane (n.o.s.)	7700	ug/kg	< 53	NA		< 110	NA		
4,4'-DDD	2500	ug/kg	< 21	NA		< 4.4	NA		
4,4'-DDE	9300	ug/kg	< 21	NA		< 4.4	NA		
4,4'-DDT	8500	ug/kg	< 21	NA		< 4.4	NA		
Dieldrin	140	ug/kg	< 21	NA		< 4.4	NA		
Endosulfan I	NVL	ug/kg	< 21	NA		< 4.4	NA		
Endosulfan II	NVL	ug/kg	< 21	NA		< 4.4	NA		
Endosulfan Sulfate	NVL	ug/kg	< 21	NA		< 4.4	NA		
Endrin	25000	ug/kg	< 21	NA		< 4.4	NA		
Endrin aldehyde	NVL	ug/kg	< 21	NA		< 4.4	NA		
Endrin ketone			< 21	NA		< 4.4	NA		
Heptachlor	630	ug/kg	< 21	NA		< 4.4	NA		
Heptachlor epoxide	330	ug/kg	< 21	NA		< 4.4	NA		
Methoxychlor			< 21	NA		< 4.4	NA		
Toxaphene	2100	ug/kg	< 53	NA		< 110	NA		
2,4-D	960000	ug/kg	< 210	NA		< 220	NA		
2,4-DB	NVL	ug/kg	< 210	NA		< 220	NA		
2,4,5-TP (Silvex)	660000	ug/kg	< 21	NA		< 22	NA		
2,4,5-T	NVL	ug/kg	< 21	NA		< 22	NA		
Dalapon	2500000	ug/kg	< 510	NA		< 540	NA		
Dicamba	NVL	ug/kg	< 21	NA		< 22	NA		
Dichloroprop	NVL	ug/kg	< 210	NA		< 220	NA		
Dinoseb	82000	ug/kg	< 110	NA		< 110	NA		
MCPA	NVL	ug/kg	< 210	NA		< 22,000	NA		
MCPP	NVL	ug/kg	< 210	NA		< 22,000	NA		
Pentachlorophenol	NVL	ug/kg	NA	NA		NA	NA		

Table 6
Soil Data - Pesticide/Herbicide
Bauxite Interim Route Distribution Line
Frederick, MD

NOTES:

Exceeds MDE Non-Residential Soil Cleanup Standard

NVL = No value listed

n.o.s. = not otherwise specified

*+ = LCS and/or LCSD is outside acceptance limits, high biased

* - = LCS and/or LCSD is outside acceptance limits low biased

J = Result is less than reporting limit but greater than method detection limit

E1 = MS and/or MSD recovery exceeds control limits

F2 = Duplicate RPD exceeds limit and one or both sample results are less than 5 times R1 and the absolute difference between results is $\leq$ the upper reporting limits for both

Sample not submitted for specified method

≤ = Analyte not detected. value repres Sample not collected (boring refusal)

cn = See case narrative below.

CU = See Case Narrative Below.
5/13/2024 (410-171693-1)

5/13/2024 (410-171093-1)
Method 8151A: The continuing call

detects for the affected analytes;

therefore, the data have been reported. RB-1-20N-0.0.5 (410-171693-3). RB-1-20S-0.0.5 (410-171693-9). RB-3-20N-0.0.5 (410-171693-5). RB-3-20S-0.0.5 (410-171693-13). RB-3-20S-0.0.5 (410-171693-17).

Method 8151A: The following sar

Method 8131A: surrogate recovery for the interference is present: therefore, reextraction

and/or re-analysis was not performed.

and/or re-analysis was not performed.
5/14/2024 (410-171693-1)

Method 8151A: The following sam-

5/13/2024 (410-171693-1)

Method 8081B: The continuing ca

the affected analytes; therefore,

the data have been reported. Method 8081B. The following sar-

Membr 80816. The following samples were diluted due to the nature of the sample matrix. KB-1-ZUS-0-0.3 (4 10-17 1693-3), KB-2-ZUN-0-0.3 (4 10-17 1693-3), KB-3-ZUN-0-0.3 (4 10-17 1693-3), KB-4-0-0.5 (410-171693-21), 171693-17) and RB-4-0-0.5 (410-171693-21).

Elevated reporting limits (RLs)

Elevated leucine aminotransferase (ALT) are provided.
5/14/2024 (410-171693-1)

Method 8081B: The following sar

171877-15), RB-20S-0-5 (410-171877-19)

and DUP-7 (410-171877-22) method 8081B. The continuing ca-

the affected analytes; therefore, the

data have been reported. The

Table 7
Groundwater - TCL VOCs
Bauxite 3
Frederick, MD

Parameter	Location ID		MW-2	GW-DUP-1	MW-3	MW-4	MW-5
	Type I and II	Sample Date	MW-2-Bauxite3-May2024	5/21/2024	MW-3-Bauxite3-May2024	MW-4-Bauxite3-May2024	MW-5-Bauxite3-May2024
	Aquifers	Units					
Acetone	1,400	ug/L	1.0 J	< 20	1.7 J cn	< 20	< 20
Benzene	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Bromodichloromethane (THM)	80	ug/L	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn
Bromoform (THM)	80	ug/L	< 4.0 cn	< 4.0 cn	< 4.0 cn	< 4.0 cn	< 4.0 cn
Bromomethane	0.75	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
2-Butanone (Methyl Ethyl Ketone)	560	ug/L	< 10	< 10	1.8 J cn	< 10	< 10
Carbon Disulfide	81	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
Carbon Tetrachloride	5	ug/L	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn
Chlorobenzene	100	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Chloroform	80	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Chloromethane	19	ug/L	< 2.0	< 2.0	< 2.0 cn	< 2.0	< 2.0
Cumene (Isopropylbenzene)	45	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
Dibromochloromethane	80	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
1,2-Dibromoethane	0.05	ug/L	< 5.0	< 5.0	< 1.0 cn	< 1.0	< 1.0
1,1-Dichloroethane	2.80	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
1,2-Dichloroethane	5	ug/L	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn
1,1-Dichloroethylene	7	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
cis-1,2-Dichloroethene	70	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
trans-1,2-Dichloroethene	100	ug/L	< 2.0	< 2.0	< 2.0 cn	< 2.0	< 2.0
1,2-Dichloropropane	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Ethyl Chloride (chloroethane)	2,100	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Ethylbenzene	700	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	630	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Methylene Chloride (Dichloromethane)	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Methyl tert-butyl ether (MTBE)	20	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Styrene	100	ug/L	< 5.0	< 5.0	< 5.0 cn	< 1.0	< 5.0
Tetrachloroethene	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	0.076	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	0.31 J
Toluene	1,000	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
1,1,1-Trichloroethane	200	ug/L	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn	< 1.0 cn
1,1,2-Trichloroethane	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Vinyl Chloride	2	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Xylenes	10,000	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Trichloroethylene	5	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
1,4-Dichlorobenzene	75	ug/L	< 5.0	< 5.0	< 5.0 cn	< 1.0	< 5.0
Methylcyclohexane	NVL	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
Cyclohexane¹	4	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
1,3-Dichlorobenzene	NVL	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
2-Hexanone¹	38	ug/L	< 10	< 10	< 10 cn	< 10	< 10
Freon 113	NVL	ug/L	< 10	< 10	< 5.0 cn	< 10	< 10
Methyl acetate¹	20,000	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	0.40 J
1,2-Dichlorobenzene	600	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
1,2-Dibromo-3-Chloropropane	0.20	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
1,2,4-Trichlorobenzene	70	ug/L	< 5.0	< 5.0	< 5.0 cn	< 5.0	< 5.0
dis-1,3-dichloropropene¹	0.47	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
trans-1,3-dichloropropene¹	0.47	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Trichlorofluoromethane¹	5,200	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0
Dichlorodifluoromethane	NVL	ug/L	< 1.0	< 1.0	< 1.0 cn	< 1.0	< 1.0

Notes

Exceeds MDE Groundwater Cleanup Standard
Sample not submitted for specified method

NA

CMBG = Central Maryland Background
NWL = No value listed

¹EPA Risk-Based Screening Level (November 2023).

< = Analyte not detected. Value represents detection limit.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceeds control limits.

F2 = MS/MSD RPD exceeds control limits.

cn = See Case Narrative

5/20/21 (410-172652-1)

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-509513 recovered above the upper control limit for Acetone. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-509513 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

5/21/24 - 410-172841-1

The following samples were received at the laboratory outside the required temperature criteria: EB-1-May2024 (410-172841-1), TB-20240521 (410-172841-2), MW-6-Bauxite3-May2024 (410-172841-3), MW-5-Bauxite3-May2024 (410-172841-4), MW-4-Bauxite3-May2024 (410-172841-5), MW-3-Bauxite3-May2024 (410-172841-6), MW-2-Bauxite3-May2024 (410-172841-7) and GWDUP-1 (410-172841-8). The sample(s) is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-510030 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane, Carbon tetrachloride, 1,1,1-Trichloroethane and Bromoform. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The continuing calibration verification (CCV) analyzed on 410-510030 is compliant under 8260C/D method criteria for Bromodichloromethane. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): MW-3-Bauxite3-May2024 (410-172841-6). The sample container was received with headspace.

Table 8
Groundwater - PAHs
Bauxite 3
Frederick, MD

Parameter		Location ID		MW-2		GW-DUP-1		MW-3		MW-4		MW-5	
		Sample ID	Sample Date	MW-2-Bauxite3-May2024	5/21/2024	5/21/2024	MW-3-Bauxite3-May2024	5/21/2024	MW-4-Bauxite3-May2024	5/21/2024	MW-5-Bauxite3-May2024	5/21/2024	
Type I and II Aquifers		Units											
Acenaphthene	53	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Acenaphthylene	NVL	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Anthracene	180	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Benzo[a]anthracene*	0.03	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Benzo[a]pyrene*	0.2	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Benzo[b]fluoranthene*	0.25	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Benzo[g,h,i]perylene	NVL	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Benzo[k]fluoranthene*	2.5	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Chrysene*	25	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Dibenzo[a,h]anthracene*	0.025	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Fluoranthene	80	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	7.7	< 0.51	< 0.51	< 0.51
Fluorene	29	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	0.95	< 0.51	< 0.51	< 0.51
Indeno[1,2,3-cd]pyrene*	0.25	ug/L		< 0.55	< 0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.51	< 0.51	< 0.51
Naphthalene	0.17	ug/L		0.17 J	0.47 J	0.34 J	< 0.52	< 0.50	< 0.50	1	0.91	< 0.51	< 0.51
Phenanthrene	12	ug/L		< 0.55	< 0.52	< 0.50	< 0.52	< 0.50	< 0.50	0.25 J	< 0.51	< 0.51	< 0.51
Pyrene	12	ug/L		< 0.55	< 0.52	< 0.50	< 0.52	< 0.50	< 0.50	4	< 0.51	< 0.51	< 0.51

Notes

Exceeds MDE Groundwater Cleanup Standard
NA Sample not submitted for specified method

NVL = No value listed

*Carcinogenic chemicals with a Mutagenic Mode of Action (MOA)

< = Analyte not detected. Value represents detection limit.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Table 9
Groundwater Data - Inorganics
Bauxite 3
Frederick, MD

Parameter		Type I and II Aquifers	Location ID Sample ID Sample Date	MW-2 MW-2-Bauxite3-May2024 5/21/2024	GW-DUP-1 5/21/2024	MW-3 MW-3-Bauxite3-May2024 5/21/2024	MW-4 MW-4-Bauxite3-May2024 5/21/2024	MW-5 MW-5-Bauxite3-May2024 5/21/2024
Total Inorganics (unfiltered)								
Antimony	0.006	mg/L		0.0012	0.0011	< 0.0010	< 0.0010	< 0.0010
Arsenic	0.01	mg/L		0.0047	0.0045	< 0.0020	0.0018 J	< 0.0020
Beryllium	0.004	mg/L		< 0.00050	< 0.00050	< 0.00050	0.00020 J	< 0.00050
Cadmium	0.005	mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Total Chromium	0.1	mg/L		0.0042	0.0041	< 0.0020	< 0.002	0.00077 J
Chromium (VI)	0.000035	mg/L			< 0.030	< 0.030	< 0.030	< 0.030
Copper	1.3	mg/L		0.00042 J	0.0017	0.00040 J	< 0.0010	0.0027
Lead	0.015	mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00052	0.00014 J
Mercury	0.0002	mg/L		< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	0.039	mg/L		< 0.0010	< 0.0010	0.0026	0.00058 J	< 0.0010
Selenium	0.05	mg/L		0.0026	0.0025	0.00029 J	< 0.0010	0.001
Silver	0.0094	mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00052	< 0.00052
Thallium	0.002	mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00052	< 0.00052
Zinc	0.6	mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoride ¹	4	mg/L		60	68	0.54 J	13	4.7
Cyanide	0.2	mg/L		0.0082 J	0.011	< 0.010	0.016	< 0.010
Dissolved Inorganics (filtered)								
Antimony	0.006	mg/L		0.0011	0.0011	< 0.0010	< 0.0010	< 0.0010
Arsenic	0.01	mg/L		0.0047	0.0045	< 0.0021	0.0021	< 0.0021
Beryllium	0.004	mg/L		< 0.00052	< 0.00052	< 0.00052	0.00023 J	< 0.00052
Cadmium	0.005	mg/L		< 0.00052	< 0.00052	< 0.00052	< 0.00052	< 0.00052
Total Chromium	0.1	mg/L		0.0044	0.0043	< 0.0021	---	0.00065 J
Copper	1.3	mg/L		0.002	0.0006 J	< 0.001	< 0.001	0.001
Lead	0.015	mg/L		< 0.00052	< 0.00052	< 0.00052	< 0.00052	< 0.00052
Mercury	0.0002	mg/L		< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	0.039	mg/L		< 0.0010	< 0.0010	0.0028	0.00062 J	< 0.0010
Selenium	0.05	mg/L		0.0026	0.0026	< 0.001	< 0.001	0.00090 J
Silver	0.0094	mg/L		< 0.00052	< 0.00052	< 0.00052	< 0.00052	< 0.00052
Thallium	0.002	mg/L		< 0.00052	< 0.00052	< 0.00052	< 0.00052	< 0.00052
Zinc	0.6	mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Notes

Exceeds MDE Groundwater Cleanup Standard

CMBG = Central Maryland Background

N/L = No value listed

¹EPA Maximum Contaminant Level (MCL) for Fluoride.

< = Analyte not detected. Value represents detection limit.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Table 10
Groundwater - PCBs
Bauxite 3
Frederick, MD

Parameter		Location ID		Sample ID		MW-2		GW-DUP-1		MW-3		MW-4		MW-5	
		Type I and II	Aquifers	Sample Date	Units	MW-2-Bauxite3-May2024	5/21/2024	5/21/2024	5/21/2024	MW-3-Bauxite3-May2024	5/21/2024	MW-4-Bauxite3-May2024	5/21/2024	MW-5-Bauxite3-May2024	5/21/2024
Aroclor 1016			0.14		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1221			0.0047		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1232			0.0047		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1242			0.0078		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1248			0.0078		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1254			0.0078		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aroclor 1260			0.0078		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total PCBs			0.5		ug/L	< 0.53	< 0.53	< 0.55	< 0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Notes

Exceeds MDE Groundwater Cleanup Standard
 NVL = No value listed
 n.o.s. = not otherwise specified
 < = Analyte not detected. Value represents detection limit.
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.