

Table 1  
Emerald 39 Lateral Spill  
Soil Data Summary

SAMPLE SUMMARY	
Location Description	Emerald 39 Lateral Spill
Sample Type	Soil

LABORATORY DATA SUMMARY														COGCC TABLE 915-1 CONCENTRATION LEVELS			ECMC TABLE 915-1 CONCENTRATION LEVELS		UNITS
Sample ID	Emerald 39 Inj Leak (ORIGIN)	Emerald 39-POR (ORIGIN)	EM39-SS1	EM39-SS1	EM39-SS2	EM39-SS2	EM39-SS2	EM39-SS3	EM39-SS3	EM39-BG1	EM22-BG1								
Depth	6'	5'	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"								
Sample Date	9/16/2020	12/19/2024	10/5/2020	12/10/2024	10/5/2020	5/10/2022	12/10/2024	10/5/2020	12/10/2024	10/5/2020	6/16/2016								
Analytical Parameters														LEVELS	Residential Soil Levels		Protection of Groundwater	UNITS	
<b>TPH</b>																			
TPH Gasoline Range Organics	<7.7	0.399	<6.8	NT	<5.1	NT	NT	<6.4	NT	NT	NT	NT	NT	500	500	500		mg/kg	
TPH Diesel Range Organics	43	37	46	NT	790	13.3	NT	71	NT	NT	NT	NT	NT						
TPH Oil Range Organics	NT	125	NT	142	NT	NT	58.9	NT	198	NT	NT	NT	NT						
<b>BTEX</b>																			
Benzene	<0.046	<0.001	0.0073 J	NT	<0.039	NT	NT	<0.041	NT	NT	NT	NT	NT	0.17	1.2	0.0026		mg/kg	
Toluene	<0.046	<0.005	<0.040	NT	<0.039	NT	NT	<0.041	NT	NT	NT	NT	NT	85	490	0.69		mg/kg	
Ethylbenzene	<0.046	<0.0025	<0.040	NT	<0.039	NT	NT	<0.041	NT	NT	NT	NT	NT	100	5.8	0.78		mg/kg	
Total Xylene	<0.14	<0.0065	<0.12	NT	0.064 J	NT	NT	0.11 J	NT	NT	NT	NT	NT	175	58	9.9		mg/kg	
1,2,4-trimethylbenzene	NT	<0.005	NT	<0.005	NT	NT	<0.005	NT	<0.005	NT	NT	NT	NT	NA	30	0.0081		mg/kg	
1,3,5-trimethylbenzene	NT	<0.005	NT	<0.005	NT	NT	<0.005	NT	<0.005	NT	NT	NT	NT	NA	27	0.0087		mg/kg	
<b>Metals</b>																			
Arsenic	7.0	6.44	5.4	NT	4.5	NT	NT	4.8	NT	3.9	9.1	0.39	0.68	0.29				mg/kg	
Barium	230	140	150	NT	380	NT	NT	190	NT	110	170	15,000	15,000	82				mg/kg	
Cadmium	0.16 J	0.274 J	0.19	NT	0.21	NT	NT	0.21	NT	0.18 J	<0.356	70	71	0.38				mg/kg	
Chromium	9.8	NT	8.6	NT	6.9	NT	NT	8.0	NT	12	17	NA	NA	NA				mg/kg	
Copper	12	13.5	11	NT	8.6	NT	NT	10	NT	16	18	3,100	3,100	46				mg/kg	
Lead	23	17.6	16	NT	29	NT	NT	15	NT	16	19	400	400	14				mg/kg	
Mercury	0.031	NT	0.021	NT	0.028	NT	NT	0.054	NT	0.017 J	0.033	23	NA	NA				mg/kg	
Nickel	21	16.5	12	NT	9.6	NT	NT	12	NT	14	23	1,600	1,500	26				mg/kg	
Selenium	1.2	1.42 J	0.77	NT	0.9	NT	NT	0.86	NT	1.2	1.7	390	390	0.26				mg/kg	
Silver	0.065 J	<0.500	0.066 J	NT	<0.43	NT	NT	<0.43	NT	<0.22	<0.35	390	390	0.8				mg/kg	
Zinc	68	81	52	NT	58	NT	NT	53	NT	63	100	23,000	23,000	370				mg/kg	
<b>SAR Metals Analysis</b>																			
Calcium	1200	NT	1400	NT	280	NT	NT	1500	NT	67	540	NA	NA	NA				mg/L	
Magnesium	170	NT	450	NT	52	NT	NT	140	NT	16	320	NA	NA	NA				mg/L	
Sodium	4800	NT	1700	NT	1500	NT	NT	4500	NT	50	2,200	NA	NA	NA				mg/L	
Sodium Adsorption Ratio	35	5.92	10	4.13	22	18.3	30.1	30	8.50	1.4	19	<12	<6	<6				ratio	
<b>Polynuclear Aromatic Hydrocarbons</b>																			
Acenaphthene	<0.010	<0.006	<0.0048	NT	<0.0092	NT	NT	0.0046	NT	NT	NT	1,000	360	0.55				mg/kg	
Anthracene	<0.010	<0.006	<0.0048	NT	<0.0092	NT	NT	0.0073	NT	NT	NT	1,000	1,800	5.8				mg/kg	
Benzo(a)anthracene	<0.010	<0.006	0.0037 J	NT	<0.0092	NT	NT	0.0027 J	NT	NT	NT	0.22	1.10	0.011				mg/kg	
Benzo(a)pyrene	<0.010	<0.006	0.0028 J	NT	<0.0092	NT	NT	0.0028 J	NT	NT	NT	0.022	0.11	0.24				mg/kg	
Benzo(b)fluoranthene	<0.010	<0.006	0.0047 J	NT	<0.0092	NT	NT	0.0035 J	NT	NT	NT	0.22	1.1	0.3				mg/kg	
Benzo(k)fluoranthene	<0.010	0.00238 J	<0.0048	NT	<0.0092	NT	NT	<0.0045	NT	NT	NT	2.2	11.0	2.9				mg/kg	
Chrysene	<0.010	<0.006	<0.0048	NT	<0.0092	NT	NT	<0.0045	NT	NT	NT	22	110	9				mg/kg	
Dibenz(a,h)anthracene	0.0082	<0.006	<0.0048	NT	<0.0092	NT	NT	<0.0045	NT	NT	NT	0.022	0.11	0.096				mg/kg	
Fluoranthene	<0.010	<0.006	<0.0048	NT	<0.0092	NT	NT	0.0047	NT	NT	NT	1,000	240	8.9				mg/kg	
Fluorene	<0.010	<0.006	<0.0048	NT	0.0054 J	NT	NT	0.006	NT	NT	NT	1,000	240	0.54				mg/kg	
Indeno(1,2,3-cd)pyrene	<0.010	<0.006	<0.0048	NT	<0.0092	NT	NT	0.0032 J	NT	NT	NT	0.22	1.1	0.08				mg/kg	
1-methylnaphthalene	NT	<0.02	NT	<0.02	NT	NT	<0.02	NT	<0.02	NT	NT	NA	18.00	0.006				mg/kg	
2-methylnaphthalene	NT	<0.02	NT	<0.02	NT	NT	<0.02	NT	<0.02	NT	NT	NA	24.00	0.019				mg/kg	
Naphthalene	<0.010	0.00672 J	<0.0048	NT	<0.0092	NT	NT	<0.0045	NT	NT	NT	23	2	0.0038				mg/kg	
Pyrene	0.0098	0.00207 J	<0.0048	NT	<0.0092	NT	NT	0.0046	NT	NT	NT	1,000	180	1.9				mg/kg	
<b>General Chemistry</b>																			
Chromium, Hexavalent	<1.2	<1.00	<1.2	<1.00	2.3	NT	NT	<1.2	<1.00	1.3	<1.1	23	0.3	0.00067				mg/kg	
Chromium, Trivalent	9.8	NT	8.6	NT	4.6	NT	NT	8.0	NT	11	17	120,000	NA	NA				mg/kg	
Hot Water Soluble Boron	NT	1.43	NT	1.12	NT	NT	2.14	NT	1.23	NT	NT	NA	2	2				mg/L	
Specific Conductivity	31	4,530	15	5,040	9.4	1,450	6,080	25	1,300	0.54	18	<4 or 2 x the background	<4	<4				mmhos/cm	
pH	8.01	7.90	7.82	NT	7.54	NT	NT	7.38	NT	8.12	8.00	6-9	6-8.3	6-8.3				su	

mg/kg - milligrams per kilogram  
 mg/L - milligrams per liter  
 H - analytical date of testing time  
 J - indicates an estimated value  
 m - indicates milligrams per centimeter  
 m - millimeter  
 NA - not applicable  
 NT - parameter was not tested

Over EMC Table 915-1 concentration levels but under BACKGROUND level  
 Over EMC Table 915-1 concentration levels and not under BACKGROUND level  
 Over EMC Table 915-1 concentration levels