

**Table 1  
Emerald 51X Flowline Spill  
Soil Data Summary**

SAMPLE SUMMARY	
Location Description	Emerald 51X Flowline Spill
Sample Type	Soil

LABORATORY DATA SUMMARY												
Sample ID	EM51X-SS1	EM51X-SS1	EM51X-SS2	EM51X-SS3	EM51X-SS3	EMERALD 51 FLOWLINE (ORIGIN)	EM51-POR (ORIGIN)	EM22-BG1	EM42-BG2	ECMC TABLE 915-1 CONCENTRATION LEVELS		UNITS
Depth	0-9"	0-9"	0-9"	0-9"	0-9"	6'	6'	0-6"	0-6"	Residential Soil	Protection of Groundwater	
Sample Date	8/24/2022	4/7/2025	8/24/2022	8/24/2022	4/7/2025	8/30/2022	12/1/2025	6/16/2016	11/30/2021			
Analytical Parameters												
TPH												
TPH Gasoline Range Organics	0.301	NT	0.192	0.136	NT	0.194 J	<2.91	NT	NT	500		mg/kg
TPH Diesel Range Organics	2.01 J	NT	3.00 J	<4.00	NT	1.97 J	14	NT	NT			
TPH Oil Range Organics	11.0	NT	19.9	0.773 J	NT	4.56	39.8	NT	NT			
Volatile Organic Compounds												
Benzene	<0.001	NT	<0.001	<0.001	NT	<0.001	<0.00116	NT	NT	1.2	0.0026	mg/kg
Toluene	<0.005	NT	<0.005	<0.005	NT	<0.005	<0.0116	NT	NT	490	0.69	mg/kg
Ethylbenzene	0.00263	NT	<0.0025	<0.0025	NT	<0.0025	<0.0116	NT	NT	5.8	0.78	mg/kg
Total Xylene	0.0106	NT	0.00588 J	0.000975 J	NT	<0.0065	<0.116	NT	NT	58	9.9	mg/kg
1,2,4-Trimethylbenzene	0.00797	NT	0.00575	<0.005	NT	<0.005	<0.00582	NT	NT	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	0.00270 J	NT	0.00303 J	<0.005	NT	<0.005	<0.00582	NT	NT	27	0.0087	mg/kg
Metals												
Arsenic	6.93	NT	7.85	5.21	NT	5.77	8.55	9.1	6.1	0.68	0.29	mg/kg
Barium	146	NT	169	106	NT	108	176	170	NT	15,000	82	mg/kg
Cadmium	0.290 J	NT	0.292 J	0.199 J	NT	0.270 J	0.357	<0.35	NT	71	0.38	mg/kg
Chromium, Hexavalent	<1.00	NT	<1.00	<1.00	NT	<1.00	<0.216	<1.1	NT	0.3	0.00067	mg/kg
Copper	16.1	NT	16.7	12.0	NT	16.7	12.5	16.5	NT	3,100	46	mg/kg
Lead	17.6	NT	19.9	13.4	NT	14.4	21.1	19	NT	400	14	mg/kg
Nickel	19.4	NT	19.5	14.8	NT	15	22.2	23	NT	1,500	26	mg/kg
Selenium	1.03 J	NT	1.41 J	1.27 J	NT	<2.00	2.11	1.7	NT	390	0.26	mg/kg
Silver	<1.00	NT	<1.00	<1.00	NT	<1.00	<0.541	<0.35	NT	390	0.8	mg/kg
Zinc	73.2	NT	76.9	55.2	NT	61.2	91.2	100	NT	23,000	370	mg/kg
Polynuclear Aromatic Hydrocarbons												
Acenaphthene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	360	0.55	mg/kg
Anthracene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	1,800	5.8	mg/kg
Benzo(a)anthracene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.00649	NT	NT	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	11	2.9	mg/kg
Chrysene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	0.11	0.096	mg/kg
Fluoranthene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	240	8.9	mg/kg
Fluorene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	1.1	0.98	mg/kg
1-Methylnaphthalene	<0.02	NT	<0.02	<0.02	NT	<0.02	<0.00324	NT	NT	18	0.006	mg/kg
2-Methylnaphthalene	<0.02	NT	<0.02	<0.02	NT	<0.02	<0.013	NT	NT	24	0.019	mg/kg
Naphthalene	<0.02	NT	<0.02	<0.02	NT	<0.02	<0.00324	NT	NT	2	0.0038	mg/kg
Pyrene	<0.006	NT	<0.006	<0.006	NT	<0.006	<0.0357	NT	NT	180	1.3	mg/kg
Soil Suitability for Reclamation												
Sodium Adsorption Ratio (SAR)	5.95	27.2	2.86	10.7	7.25	26.9	6.92	19	1.0	<6	<6	ratio
Electrical Conductivity (EC)	4.88	3.04	0.401	0.470	2.170	6.57	6.34	18	1.70	<4	<4	mmhos/cm
Boron, Hot Water Soluble	2.450	2.26	0.666	0.552	1.19	1.97	0.211	NT	1.30	2	2	mg/l
pH	7.65	8.65	8.05	8.79	8.65	8.02	8.13	8.00	8.82	6 - 8.3	6 - 8.3	su

mg/kg - milligrams per kilogram  
mg/L - milligrams per liter  
B - analyte detected in the associated Method Blank above the Reporting Limit  
J - indicates an estimated value  
H - analyzed outside of holding time  
mmhos/cm - millimhos per centimeter  
mv - millivolts  
su - standard units  
NA - not applicable  
NT - parameter was not tested

Over ECMC Table 915-1 concentration levels but under BACKGROUND level.  
Over ECMC Table 915-1 concentration levels and not within BACKGROUND level.  
Over ECMC Table 915-1 concentration levels  
Background Sample Locations