

Table 1
Grand River Gathering A18E Spill
Soil Analytical Results

LABORATORY DATA SUMMARY										
Sample ID	North Wall	South Wall	East Wall	West Wall	Floor	Background	Background	COGCC TABLE 915-1 CONCENTRATION LEVELS		UNITS
Sample Depth	9'	16'	15'	15'	20'	2'	8'			
Latitude	39.4515536	39.4515002	39.4515282	39.451508	39.4515085	39.4515997	39.4515986			
Longitude	-107.7037624	-107.7037429	-107.7036846	-107.7037892	-107.7037879	-107.7036122	-107.7035961			
Report	4116 / 2105A69	4116 / 2105A69	4116 / 2105A69	4116 / 2105A69	4116 / 2105A69	4116 / 2105A69	4116 / 2105A69			
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab			
Sample Description	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Background	Background			
Sample Date	2021-05-12	2021-05-12	2021-05-12	2021-05-12	2021-05-12	2021-05-12	2021-05-12			
Analytical Parameters								Residential Soil Screening Level	Protection of Groundwater Screening Level	
TPH										
TPH Gasoline Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	500		mg/kg
TPH Diesel Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0			
TPH Oil Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0			
TOTAL TPH	<150.0	<150.0	<150.0	<150.0	<150.0	<150.0	<150.0			
BTEX										
Benzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.2	0.0026	mg/kg
Toluene	0.076	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	490	0.69	mg/kg
Ethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	5.8	0.78	mg/kg
Total Xylenes	0.162	0.097	<0.050	<0.050	<0.050	0.117	<0.050	58	9.9	mg/kg
TMB										
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	27	0.0087	mg/kg
Metals										
Arsenic	11	22	10	7.5	7.2	14	8.6	0.68	0.29	mg/kg
Barium	57.0	26.4	28.0	33.8	43.6	39.8	32.8	15,000	82	mg/kg
Cadmium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	71	0.38	mg/kg
Chromium (Hexavalent)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.3	0.00067	mg/kg
Copper	1.11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3,100	46	mg/kg
Lead	1.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	400	14	mg/kg
Nickel	1.57	<1.0	<1.0	<1.0	1.03	1.25	<1.0	1,500	26	mg/kg
Selenium	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	390	0.26	mg/kg
Silver	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	390	0.8	mg/kg
Zinc	4.80	2.52	<1.0	<1.0	2.04	1.92	1.11	23,000	370	mg/kg
SAR Metals Analysis										
Sodium Adsorption Ratio	1.91	11.7	4.64	0.48	2.14	7.02	0.34	<6		ratio
Polynuclear Aromatic Hydrocarbons										
Acenaphthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	360	0.55	mg/kg
Anthracene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	1,800	5.8	mg/kg
Benzo(a)anthracene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	11	2.9	mg/kg
Chrysene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	0.096	mg/kg
Fluoranthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	240	8.9	mg/kg
Fluorene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.98	mg/kg
1-Methylnapthalene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	18	0.006	mg/kg
2-Methylnapthalene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	24	0.019	mg/kg
Napthalene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	0.0038	mg/kg
Pyrene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	180	1.3	mg/kg
General Chemistry										
Boron	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2		mg/L
Specific Conductivity	0.336	1.17	0.824	0.384	0.404	0.952	0.384	<4		mmhos/cm
pH	8.2	8.9	8.6	8.3	8.4	8.5	8.1	6-8.3		su

mg/kg - milligrams per kilogram
mg/L - milligrams per liter
mmhos/cm - millimhos per centimeter
mv - millivolts
su - standard units
NA - not applicable
NT - parameter was not tested
ND - not detected above method detection limit
J - indicates an estimated value
TS - Samples received past/too close to holding time expiration
V - The sample volume is too high to evaluate accurate spike recoveries

Over COGCC Table 915-1 concentration levels but under BACKGROUND level.
Over COGCC Table 915-1 concentration levels and not within BACKGROUND level.
Over COGCC Table 915-1 concentration levels