

TABLE 1
SHIRLEY ROTHER 1 & SHIRLEY ROTHER-614S42W33SESU FACILITY
SOIL SAMPLE FIELD DATA SUMMARY TABLE
MYSTIQUE RESOURCES COMPANY

Sample Location	Date	Approximate Depth (feet bgs)	PID (ppm-v)	Visual Observation	Olfactory Observation	Latitude, Longitude	Submitted for Lab Analysis (Y/N)
Initial Wellhead Soil Samples							
WH-B01@6'	8/20/2025	6	0.3	N/S	N/O	38.7858860138695, -102.122474512372	Y
WH-N01@5'	8/20/2025	5	0.2	N/S	N/O	38.7859006532622, -102.12247255932	N
WH-S01@5'	8/20/2025	5	0.3	N/S	N/O	38.7858663284807, -102.122480566376	N
WH-E01@5'	8/20/2025	5	0.1	N/S	N/O	38.7858830018596, -102.122457120064	N
WH-W01@5'	8/20/2025	5	0.3	N/S	N/O	38.7858845662291, -102.122495772558	N
Initial Flowline Soil Samples							
FL-B01@4'	8/20/2025	4	0.8	N/S	N/O	38.7839999666965, -102.122481924208	Y
FL-B02@4'	8/20/2025	4	0.5	N/S	N/O	38.7845413847524, -102.122489759384	N
FL-B03@4'	8/20/2025	4	0.4	N/S	N/O	38.7852203237103, -102.122500602485	N
Initial Tank Battery Soil Samples							
AST-B01@3"	8/20/2025	0.25	0.2	N/S	N/O	38.7841111664343, -102.122113475081	Y
AST-B02@3"	8/20/2025	0.25	0.3	N/S	N/O	38.7840960490648, -102.122111886477	N
AST-B03@3"	8/20/2025	0.25	0.2	N/S	N/O	38.7841100260751, -102.122053585469	Y
AST-B04@3"	8/20/2025	0.25	0.1	N/S	N/O	38.7840964590435, -102.122059604155	N
MH-B01@3"	8/20/2025	0.25	0.1	N/S	N/O	38.784062859576, -102.121745808296	N
SEP-B01@1'	8/20/2025	1	0.3	N/S	N/O	38.7840391676716, -102.12166767938	Y
SEP-B02@1'	8/20/2025	1	1.4	N/S	N/O	38.7840336228994, -102.121610084231	Y
Background Soil Samples							
BG-01@3"	8/20/2025	0.25	0.8	N/S	N/O	38.7842795181685, -102.121924458346	Y
BG-01@3'	8/20/2025	3	1.1	N/S	N/O	38.7842795181685, -102.121924458346	Y
BG-01@6'	8/20/2025	6	0.6	N/S	N/O	38.7842795181685, -102.121924458346	Y
BG-02@3"	8/20/2025	0.25	0.5	N/S	N/O	38.7858320679541, -102.122313919182	Y
BG-02@3'	8/20/2025	3	0.4	N/S	N/O	38.7858320679541, -102.122313919182	Y
BG-02@6'	8/20/2025	6	0.5	N/S	N/O	38.7858320679541, -102.122313919182	Y

Notes:

bgs = below ground surface
 PID = photoionization detector
 ppm-v = parts per million by volume

N/S = No Staining
 N/O = No Odor



TABLE 2
SHIRLEY ROTHER 1 & SHIRLEY ROTHER-614S42W33SESW FACILITY
SOIL SAMPLE RESULTS SUMMARY TABLE - VOCs
MYSTIQUE RESOURCES COMPANY

Sample Location	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
<i>ECMC standards for soil (mg/kg)⁽¹⁾</i>		0.0026	0.69	0.78	9.9	500			0.0081	0.0087
<i>ECMC standards for soil (mg/kg)⁽²⁾</i>		1.2	490	5.8	58	500			30	27
Initial Wellhead Soil Samples										
WH-B01@6'	8/20/2025	<0.002	<0.002	<0.002	<0.002	<0.246	<30.8	<123	<0.002	<0.002
Initial Flowline Soil Samples										
FL-B01@4'	8/20/2025	<0.002	0.006	<0.002	<0.002	<0.235	<29.3	<117	<0.002	<0.002
Initial Tank Battery Soil Samples										
AST-B01@3"	8/20/2025	<0.002	<0.002	<0.002	<0.002	<0.235	<29.4	<118	<0.002	<0.002
AST-B03@3"	8/20/2025	<0.002	<0.002	<0.002	<0.002	<0.245	<30.6	<122	<0.002	<0.002
SEP-B01@1'	8/20/2025	<0.002	<0.002	<0.002	<0.002	<0.224	<27.9	<112	<0.002	<0.002
SEP-B02@1'	8/20/2025	<0.002	<0.002	<0.002	<0.002	<0.248	<31.0	<124	<0.002	<0.002

Notes:

⁽¹⁾ ECMC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ ECMC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

< = Analytical result is less than the laboratory reporting limit

mg/kg = milligrams per kilogram

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

TMB = Trimethylbenzene



TABLE 3
SHIRLEY ROTHER 1 & SHIRLEY ROTHER-614S42W33SESW FACILITY
SOIL SAMPLE RESULTS SUMMARY TABLE - SOIL SUITABILITY FOR RECLAMATION
MYSTIQUE RESOURCES COMPANY

Sample Location	Date	Depth (ft. bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC standards for soil⁽¹⁾			6 - 8.3	<6	<4	2
Site-Specific Background Limits			(@6'): 8.42	2.10	2.59	0.400
Initial Wellhead Soil Samples						
WH-B01@6'	8/20/2025	6	8.17	3.71	1.77	0.323
Initial Flowline Soil Samples						
FL-B01@4'	8/20/2025	4	8.14	1.09	1.57	0.232
Initial Tank Battery Soil Samples						
AST-B01@3"	8/20/2025	0.25	7.68	0.123	0.961	0.417
AST-B03@3"	8/20/2025	0.25	7.79	0.112	0.372	0.480
SEP-B01@1'	8/20/2025	1	7.90	0.336	0.447	0.418
SEP-B02@1'	8/20/2025	1	7.94	0.321	0.429	0.346
Background Soil Samples						
BG-01@3"	8/20/2025	0.25	8.05	NA	NA	NA
BG-01@3'	8/20/2025	3	8.38	0.921	0.472	0.338
BG-01@6'	8/20/2025	6	8.42	0.765	0.518	0.198
BG-02@3"	8/20/2025	0.25	7.81	NA	NA	NA
BG-02@3'	8/20/2025	3	8.11	2.10	2.59	0.400
BG-02@6'	8/20/2025	6	8.19	1.63	1.63	0.219

Notes:

⁽¹⁾ Standards for soil are taken from ECMC Table 915-1, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

ft. bgs = Feet below ground surface

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

NA = Not Analyzed

TABLE 4
 SHIRLEY ROTHER 1 & SHIRLEY ROTHER-614S42W33SESW FACILITY
 SOIL SAMPLE RESULTS SUMMARY TABLE - PAHs
 MYSTIQUE RESOURCES COMPANY

Sample Location	Date	1-Methyl-naphthalene (mg/kg)	2-Methyl-naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)-pyrene (mg/kg)	Benzo(b)-fluoranthene (mg/kg)	Benzo(k)-fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)-anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3-cd)-pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
<i>ECMC standards for soil (mg/kg) ⁽¹⁾</i>		0.006	0.019	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	0.0038	1.3
<i>ECMC standards for soil (mg/kg) ⁽²⁾</i>		18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180
<i>Initial Wellhead Soil Samples</i>																
WH-B01@6'	8/20/2025	<0.002	<0.002	<0.025	<0.025	<0.006	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025
<i>Initial Flowline Soil Samples</i>																
FL-B01@4'	8/20/2025	<0.002	<0.002	<0.023	<0.023	<0.006	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.002	<0.023
<i>Initial Tank Battery Soil Samples</i>																
AST-B01@3"	8/20/2025	<0.002	<0.002	<0.024	<0.024	<0.006	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.002	<0.024
AST-B03@3"	8/20/2025	<0.002	<0.002	<0.024	<0.024	<0.006	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.002	<0.024
SEP-B01@1'	8/20/2025	<0.002	<0.002	<0.022	<0.022	<0.006	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.002	<0.022
SEP-B02@1'	8/20/2025	<0.002	<0.002	<0.025	<0.025	<0.006	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.002	<0.025

Notes:

⁽¹⁾ Standards are taken from ECMC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ Standards for soil are taken from ECMC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

PAH = Polycyclic Aromatic Hydrocarbons

TABLE 5
SHIRLEY ROTHER 1 & SHIRLEY ROTHER-614S42W33SESW FACILITY
SOIL SAMPLE RESULTS SUMMARY TABLE - METALS
MYSTIQUE RESOURCES COMPANY

Sample Location	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
<i>ECMC standards for soil (mg/kg) ⁽¹⁾</i>		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
<i>ECMC standards for soil (mg/kg) ⁽²⁾</i>		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
<i>Site-Specific Background Limits (1.25x Buffer Applied)</i>		(@3'): 8.21 (@6'): 8.55	(@3'): 366 (@6'): 491	(@3'): 0.393	N/A	N/A	(@3'): 16.5	N/A	(@3'): 0.305	N/A	N/A
Initial Wellhead Soil Samples											
WH-B01@6'	8/20/2025	6.59*	485*	<0.318	*<0.19	<38.5	12.5	<21.8	<0.206	<0.670	<310
Initial Flowline Soil Samples											
FL-B01@4'	8/20/2025	6.51*	246*	<0.318	*<0.18	<38.5	13.5	<21.8	0.241	<0.670	<310
Initial Tank Battery Soil Samples											
AST-B01@3"	8/20/2025	5.04*	203*	<0.305	*<0.19	<37.0	11.9	<20.9	0.236	<0.643	<297
AST-B03@3"	8/20/2025	4.67*	229*	<0.323	*<0.19	<39.1	<11.9	<22.1	0.234	<0.679	<314
SEP-B01@1'	8/20/2025	4.69*	416*	<0.305	*<0.17	<37.0	<11.2	<20.9	0.217	<0.643	<297
SEP-B02@1'	8/20/2025	6.11*	261*	<0.339	*<0.19	<41.0	12.5	<23.2	0.329	<0.713	<330
SEP-B02@1' (RERUN 1)	8/20/2025	NA	NA	NA	NA	NA	NA	NA	RP	NA	NA
SEP-B02@1' (RERUN 2)	8/20/2025	NA	NA	NA	NA	NA	NA	NA	RP	NA	NA
Background Soil Samples											
BG-01@3'	8/20/2025	6.57	293	0.315	<0.18	<35.9	13.2	<20.3	0.244	<0.625	<289
BG-01@6'	8/20/2025	6.30	393	<0.306	<0.18	<37.1	11.7	<21.0	<0.198	<0.645	<298
BG-02@3'	8/20/2025	6.55	267	<0.307	<0.17	<37.2	13.1	<21.0	0.227	<0.647	<299
BG-02@6'	8/20/2025	6.84	291	<0.308	<0.18	<37.3	12.2	<21.1	<0.200	<0.649	<300

Notes:

⁽¹⁾ Standards are taken from ECMC Table 915-1: Protection of Groundwater Soil Screening Level Concentrations, effective January 15, 2021

⁽²⁾ Standards for soil are taken from ECMC Table 915-1: Residential Soil Screening Level Concentrations, effective January 15, 2021

ECMC = Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

* = compound is in accordance with the ECMC Table 915-1 Footnote 9.

mg/kg = Milligrams per Kilogram

Values presented in **BOLD*** contained concentrations exceeding ECMC Table 915-1 Cleanup Concentrations, but are within site-specific background limits.

Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Cleanup Concentrations.

N/A = Not Applicable

NA = Not Analyzed

RP = Results Pending

