ATTACHMENT D

Harpham Tank Battery P&A Project
Off-Location Flowline
PADCO LLC

Table 915-1 Hydrocarbon Analysis Results

Sample Date	Sampled By	Soil Sample	Lab ID	Location	Sample Depth (inches)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylene (mg/kg)	1,2,4-Trimethyl benzene (mg/kg)	1,3,5-Trimethyl benzene (mg/kg)	Naph-thalene (mg/kg)
---	---	**Table 915**	---	**Groundwater SSL**	---	---	---	---	**500**	**0.0026**	**0.69**	**0.78**	**9.9**	**0.0081**	**0.0087**	**0.0038**
11/21/2022	Lesair	H1a	2211388-01	Wellhead/Csg Cut-off	~70"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/7/2023	Lesair	H3a	2304164-01	Flowline Fitting	~48"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/7/2023	Lesair	H3b	2304164-02	Leak Clamps	~50"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/7/2023	Lesair	H3c	2304164-03	Hammer Union	~60"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/7/2023	Lesair	H3d	2304161-01	Poly Pipe	~66"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/7/2023	Lesair	H3e	2304161-02	Riser at Treater	~60"	5.4	6,900	6,200	13,105	ND	ND	ND	ND	ND	ND	ND
4/13/2023	Lesair	H3e1	2304308-01	Riser at Treater	~70"	82.0	16,000	3,100	19,182	0.0022	ND	0.4200	0.0480	0.1600	ND	0.6000
4/13/2023	Lesair	H3e2	2304308-02	Riser at Treater	~100"	2.1	ND	ND	2	ND	ND	ND	ND	0.0050	ND	0.0150
4/13/2023	Lesair	H3e3[1]	2304308-03	Riser at Treater	~115"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES: 1 - Sample H3e3 provides confirmation that the hydropcarbon impacted soil at sample location "H3e" has been removed and meets Table 915-1 thresholds for Hydrocarbon analysis.

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Table 915-1 Soil Suitability for Reclamation Results

Sample Date	Sampled By	Soil Sample	Lab ID	Location	Sample Depth (inches)	Sodium Adsorption Ratio (SAR)	Specific Conductance (EC) (mmhos/cm)	% Solids	Boron (mg/l)	pH
---	---	**Table 915**	---	**Groundwater SSL**	---	**<6**	**<4**	---	**2**	**6-8.3**
7/20/2024	Lesair	H1a	2407273-02	Wellhead/Csg Cut-off	~70"	0.99	0.9	89.5	ND	7.79
4/7/2023	Lesair	H3a	2304164-01	Flowline Fitting	~48"	1.27	0.42	83.5	0.40	6.89
4/7/2023	Lesair	H3b	2304164-02	Leak Clamps	~50"	0.65	0.30	88.5	0.20	7.54
4/7/2023	Lesair	H3c	2304164-03	Hammer Union	~60"	14.90	2.85	77.7	1.62	6.41
4/17/2023	Lesair	H3c1[3]	2304356-01	Hammer Union	~84"	0.73	1.80	83.9	1.55	8.09
4/17/2023	Lesair	H3c-N[4]	2304356-02	H3c N side of ditch	~20"	2.34	0.42	88.5	0.22	7.40
4/17/2023	Lesair	H3c-S[4]	2304356-03	H3c S side of ditch	~36"	1.82	0.23	90.8	1.43	7.42
4/17/2023	Lesair	H3c-E[4]	2304356-04	H3c 6' West in ditch	~76"	1.39	0.51	83.2	0.28	6.85
4/17/2023	Lesair	H3c-W[4]	2304356-05	H3c 6' East in ditch	~78"	0.87	0.81	83.8	0.30	7.40
4/7/2023	Lesair	H3d	2304161-01	Poly Pipe	~66"	0.50	0.30	90.8	0.37	8.17
4/7/2023	Lesair	H3e	2304161-02	Riser at Treater	~60"	1.84	0.67	76.1	0.69	6.91
4/13/2023	Lesair	H3e1	2304308-01	Riser at Treater	~70"	---	---	---	---	7.69
4/13/2023	Lesair	H3e2	2304308-02	Riser at Treater	~100"	1.51	0.59	86.5	0.29	8.36

NOTES: 3 - Sample H3c1 provides confirmation that the SAR impacted soil at sample location "H3c" has been removed and meets Table 915-1 thresholds for SAR.
4 - Samples H3c-N, S, E, and W are delineation confirmation samples that the impact at sample location H3c was deliniated and meets Table 915-1 thresholds for SAR.

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Table 915-1 Metals Analysis Results

Sample Date	Sampled By	Soil Sample	Lab ID	Location	Sample Depth (inches)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (kg/mg)	Lead (kg/mg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
---	---	**Table 915**	---	**Groundwater SSL**	---	**0.29**	**82**	**0.38**	**0.00067**	**46**	**14**	**26**	**0.26**	**0.8**	**370**
45493	Lesair	H1a[5,6,7]	2407273-02	Wellhead/Csg Cut-off	~70"	3.51	184	0.400	ND	5.2	10.6	5.5	ND	0.07	19.0
7/20/2024	Lesair	H3a[5,6,7]	2407271-01	Flowline Fitting	~48"	3.55	151	0.392	ND	5.0	10.4	5.3	ND	0.05	18.8
7/20/2024	Lesair	H3b[5,6,7]	2407271-02	Leak Clamps	~50"	3.00	148	0.434	ND	4.7	10.3	4.8	ND	0.05	18.7
7/20/2024	Lesair	H3c[5,6,7,8]	2407271-03	Hammer Union	~60"	3.10	196	0.433	ND	5.4	10.8	5.2	ND	0.06	20.8
7/20/2024	Lesair	H3d[5,7,8,9]	2407271-04	Poly Pipe	~66"	5.41	210	0.299	ND	4.4	8.5	5.5	ND	0.04	17.6
7/20/2024	Lesair	H3e[5,7,8,9]	2407271-05	Riser at Treater	~60"	4.73	201	0.296	ND	4.6	8.6	5.5	ND	0.05	17.9
7/20/2024	Lesair	BG-12	2407290-01	Background	~12"	3.64	143	0.421	ND	5.1	12.0	4.8	ND	0.046	21.0
7/20/2024	Lesair	BG-24	2407290-02	Background	~24"	3.27	167	0.484	ND	5.4	11.8	4.9	ND	0.051	21.6
7/20/2024	Lesair	BG-48[7,8,9]	2407290-03	Background	~48"	3.31	174	0.524	ND	5.0	11.8	5.1	ND	0.053	21.3
7/20/2024	Lesair	BG-70[7,8,9]	2407290-04	Background	~70"	3.57	190	0.662	ND	6.4	12.6	6.1	ND	0.072	24.0

NOTES: 5 - Samples H1a, H3a, H3b, H3c, H3d, and H3e indicate Arsenic and Barium values that exceed Table 915-1 thresholds for Arsenic and Barium. Based on background samples taken in the area, these high values should be considered native soil conditions and not from oil and gas impacts.

6 - Samples H1a, H3a, H3b, and H3c indicate Cadmium values that exceed Table 915-1 thresholds for Cadmium. Based on background samples taken in the area, these high values should be considered native soil conditions and not from oil and gas impacts.

7 - Background samples BG-48 and BG-70 were taken at similar depths to the project samples and indicate that native soil characteristics have high Arsenic, Barium, and Cadmium concentrations.

8 - Sample BG-48 and BG-70 have a Barium level of 174 mg/kg and 190 mg/kg, respectively. Using the ECMC protocol of a 1.25 multiplier, a Barium range of 217.5 to 237.5 mg/kg may be used. This indicates the Barium values are associated with natural background levels.

9 - Sample BG-48 and BG-70 have an Arsenic level of 3.31 mg/kg and 3.57 mg/kg, respectively. Using the ECMC protocol of a 1.25 multiplier, an Arsenic range of 4.14 to 4.46 mg/kg may be used. Arsenic values are considered to be due to natural background levels.