

Venrick #1A Well Site
PADCO LLC
March 2023 Spill
Analytical Results of Hydrocarbon and Produced Water Impacted Soil

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-Tri methyl benzene (mg/kg)	1,3,5-Tri methyl benzene (mg/kg)	Naphthalene (mg/kg)	pH
---	---	Table 915	---	---	---	---	---	---	500	0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	6-8.3
3/22/2023	Lesair	V1	2303552-01	Initial Spill Sample	~3"	1,000	19,000	3,700	23,700	ND	ND	ND	1.2	6.7	4.0	1.3	7.58
4/17/2023	Lesair	V1-6"	2304363-01	East of PU (2nd sample at pt. V1)	~6"	ND	180	ND	180	ND	ND	ND	ND	ND	ND	ND	8.21
4/21/2023	Lesair	V1A-E	2304486-01	East of PU	~4"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.03
4/17/2023	Lesair	V1-W	2304363-03	West of PU	~4"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.45
4/21/2023	Lesair	V1A-W	2304486-02	West of PU	~6"	ND	260	68	328	ND	ND	ND	ND	ND	ND	ND	7.45
4/17/2023	Lesair	V1-S	2304363-02	South of PU	~4"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.47
4/21/2023	Lesair	V1A-N	2304486-03	North of PU	~6"	ND	1,300	350	1,650	ND	ND	ND	ND	ND	ND	ND	7.70
5/3/2023	Lesair	V1A-Na	2305068-05	N side of PU	~66"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-Nn	2305068-01	N side of PU	~61"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-Ns	2305068-02	N side of PU	~66"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-Ne	2305068-03	N side of PU	~43"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-Nw	2305068-04	N side of PU	~64"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-SWnn	2305067-01	North Sidewall	~18"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
5/3/2023	Lesair	V1A-SWn	2305066-01	North Sidewall	~40"	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---
4/21/2023	Lesair	Pile V1	2304487-01	Waste Soil Pile #2	~12"	24	1,100	190	1,314	ND	ND	ND	ND	ND	0.0260	ND	---

NOTES: Samples V1A-Na, Nn, Ns, Ne, Nw, SWn, SWnn confirm that soils on the North side of the pumping unit were delineated as meeting Table 915
Sample V1A-W confirms the soils on the West side of the pumping unit meet the Table 915 threshold for pH
Waste soil pile #2, based on analysis results of sample "Pile V1", will be hauled to an offsite disposal facility (Pawnee Waste)
PU = Pumping Unit

**Venrick #1A Well Site
PADCO LLC
March 2023 Spill
Analytical Results of Hydrocarbon and Produced Water Impacted Soil**

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	---	---	---	<6	<4	---	2	6-8.3
3/22/2023	Lesair	V1	2303552-01	Initial Sample	~3"	4.30	1.04	73.8	0.91	7.58
4/17/2023	Lesair	V1-6"	2304363-01	2nd Sample (V1)	~6"	1.87	0.84	86.0	0.66	8.21
4/21/2023	Lesair	V1A-E	2304486-01	East of PU	~4"	0.95	0.38	86.3	0.42	8.03
4/17/2023	Lesair	V1-W	2304363-03	West of PU	~4"	0.54	0.68	86.0	0.31	8.45
4/21/2023	Lesair	V1A-W	2304486-02	West of PU	~6"	1.23	0.50	85.2	0.40	7.45
4/17/2023	Lesair	V1-S	2304363-02	South of PU	~4"	1.27	0.55	86.5	0.22	7.47
4/21/2023	Lesair	V1A-N	2304486-03	North of PU	~6"	1.01	0.58	85.0	0.80	7.70
4/21/2023	Lesair	Pile V1	2304487-01	Waste Soil Pile #2	~12"	1.98	0.67	79.4	1.84	7.59

NOTES: Sample V1A-W confirms the soils on the West side of the pumping unit meet the Table 915 threshold for pH

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)	pH
---	---	Table 915	---	---	---	0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370	6-8.3
3/22/2023	Lesair	V1	2303552-01	Initial Spill Sample	~3"	2.87	117	0.24	ND	8.9	10.9	8.5	0.570	0.060	34.3	7.58
3/3/2021	Lesair	VB	2103099-01	Tank Battery	~6"	4.74	150	ND	---	---	---	---	0.836	---	---	8.27

NOTES: Arsenic, Barium, and Selenium levels greater than Table 915 threshold is attributed to background levels higher than GW SSL and not associated with spill, this is based on historical Venrick background level analysis from 2021.