

TABLE 1
GROUNDWATER ANALYTICAL RESULTS

LORENZ UPRR 42-27 1, 41-27 3 TANK BATTERY
COGCC REMEDIATION #8952
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water (feet btoc)	Groundwater Elevation (AMSL)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW01	8/22/2014	6.22	4,732.91	17,800	2,920	745	11,500
	11/20/2014	9.79	4,729.34	32,900	751	673	10,500
	1/9/2015	7.87	4,731.26	30,000	190	1,300	20,000
	4/10/2015	8.72	4,730.41	25,000	220	640	13,000
	7/16/2015	6.16	4,732.97	22,000	1,800	690	11,000
	10/6/2015	7.02	4,732.11	33,000	150	830	13,000
	1/15/2016	7.56	4,731.57	1,600	1.8	<1.0	2,000
	4/29/2016	7.50	4,731.63	<1.0	<1.0	<1.0	<1.0
	7/15/2016	7.60	4,731.53	<1.0	<1.0	<1.0	<1.0
	10/26/2016	7.65	4,731.48	2,000	<1.0	<1.0	27
	1/19/2017	8.70	4,730.43	1,400	<1.0	64	460
	4/20/2017	9.83	4,729.12	3,100	<1.0	220	2,500
	8/9/2017	7.05	4,731.90	2,100	1.3	210	2,400
	10/3/2017	7.77	4,731.18	1,900	1.1	230	35,000
	1/2/2018	7.07	4,731.88	1,520	<4.00	193	1,390
	4/4/2018	8.12	4,730.83	360	<1.0	27	320
	7/5/2018	7.52	4,731.43	220	<1.0	<1.0	160
	10/4/2018	7.89	4,731.06	<1.0	<1.0	<1.0	<2.0
	1/7/2019	8.76	4,730.19	<1.0	<1.0	<1.0	<2.0
	4/1/2019	9.52	4,729.43	<1.0	<1.0	<1.0	<2.0
	7/16/2019	9.08	4,729.87	15	<1.0	12	77
	10/31/2019	7.98	4,730.97	5.9	<1.0	6.7	45
MW02	8/22/2014	8.83	4,733.58	0.33	<1.0	<1.0	3.5
	11/20/2014	9.51	4,732.90	<0.50	<1.0	<1.0	<1.0
	1/9/2015	10.25	4,732.16	<1.0	<1.0	<1.0	<1.0
	4/10/2015	11.26	4,731.15	<1.0	<1.0	<1.0	<1.0
	7/16/2015	8.71	4,733.70	<1.0	<1.0	<1.0	<1.0
	10/6/2015	9.30	4,733.11	<1.0	<1.0	<1.0	<1.0
	1/15/2016	10.42	4,731.99	<1.0	<1.0	<1.0	<1.0
	4/29/2016	9.80	4,732.61	<1.0	<1.0	<1.0	<1.0
	7/15/2016	10.15	4,732.26	<1.0	<1.0	<1.0	<1.0
	10/26/2016	10.30	4,732.11	<1.0	<1.0	<1.0	<1.0
	1/19/2017	10.25	4,732.16	<1.0	<1.0	<1.0	<1.0
	4/20/2017	12.71	4,729.70	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					



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NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water (feet btoc)	Groundwater Elevation (AMSL)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW03	8/22/2014	12.74	4,729.52	<1.0	<1.0	0.68	1.4
	11/20/2014	9.29	4,732.97	<0.50	<1.0	<1.0	<1.0
	1/9/2015	10.08	4,732.18	<1.0	<1.0	<1.0	<1.0
	4/10/2015	11.50	4,730.76	1.1	<1.0	<1.0	<1.0
	7/24/2015	8.04	4,734.22	<1.0	<1.0	<1.0	<1.0
	10/6/2015	8.44	4,733.82	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.46	4,732.80	<1.0	<1.0	<1.0	<1.0
	4/29/2016	8.83	4,733.43	<1.0	<1.0	<1.0	<1.0
	7/15/2016	9.29	4,732.97	<1.0	<1.0	<1.0	<1.0
	10/26/2016	9.40	4,732.86	<1.0	<1.0	<1.0	<1.0
	1/19/2017	9.20	4,733.06	<1.0	<1.0	<1.0	<1.0
	4/20/2017	11.68	4,730.58	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW04	8/22/2014	9.20	4,733.02	<1.0	<1.0	<1.0	<2.0
	11/20/2014	9.89	4,732.33	<0.50	<1.0	<1.0	<1.0
	1/9/2015	10.45	4,731.77	<1.0	<1.0	<1.0	<1.0
	4/10/2015	11.50	4,730.72	<1.0	<1.0	<1.0	<1.0
	7/16/2015	8.83	4,733.39	<1.0	<1.0	<1.0	<1.0
	10/6/2015	9.46	4,732.76	<1.0	<1.0	<1.0	<1.0
	1/15/2016	10.60	4,731.62	<1.0	<1.0	<1.0	<1.0
	4/29/2016	10.06	4,732.16	<1.0	<1.0	<1.0	<1.0
	7/15/2016	10.29	4,731.93	<1.0	<1.0	<1.0	<1.0
	10/26/2016	10.48	4,731.74	<1.0	<1.0	<1.0	<1.0
	1/19/2017	10.40	4,731.82	<1.0	<1.0	<1.0	<1.0
	4/20/2017	12.87	4,729.35	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW05	8/22/2014	9.19	4,733.25	869	<1.0	3.7	5.0
	11/20/2014	9.81	4,732.63	7.2	<1.0	<1.0	<1.0
	1/9/2015	10.35	4,732.09	2.6	<1.0	<1.0	<1.0
	4/10/2015	11.05	4,731.39	<1.0	<1.0	<1.0	<1.0
	7/16/2015	9.72	4,732.72	220	<1.0	<1.0	<1.0
	10/6/2015	8.23	4,734.21	<1.0	<1.0	<1.0	<1.0
	1/15/2016	NM	NM	Not sampled - monitoring well frozen/blocked			



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WELD COUNTY, COLORADO
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Monitoring Well	Date	Depth to Water (feet btoc)	Groundwater Elevation (AMSL)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW05	4/29/2016	10.48	4,731.96	<1.0	<1.0	<1.0	<1.0
	7/15/2016	10.13	4,732.31	<1.0	<1.0	<1.0	<1.0
	10/26/2016	8.92	4,733.52	<1.0	<1.0	<1.0	<1.0
	1/19/2017	8.70	4,733.74	<1.0	<1.0	<1.0	<1.0
	4/20/2017	10.82	4,730.23	<1.0	<1.0	<1.0	<2.0
	8/9/2017	7.81	4,733.24	<1.0	<1.0	<1.0	<2.0
	10/3/2017	8.00	4,733.05	<1.0	<1.0	<1.0	<2.0
	1/2/2018	8.25	4,732.80	<1.00	<1.00	<1.00	<1.00
	4/4/2018	9.33	4,731.72	<1.0	<1.0	<1.0	<2.0
	7/5/2018	8.59	4,732.46	<1.0	<1.0	<1.0	<2.0
	10/4/2018	8.96	4,732.09	<1.0	<1.0	<1.0	<2.0
	1/7/2019	9.80	4,731.25	<1.0	<1.0	<1.0	<2.0
	4/1/2019	10.99	4,730.06	<1.0	<1.0	<1.0	<2.0
	7/16/2019	10.10	4,730.95	<1.0	<1.0	<1.0	<2.0
	10/31/2019	9.23	4,731.82	<1.0	<1.0	<1.0	<2.0
MW06	9/25/2014	6.82	4,732.38	<1.0	<1.0	<1.0	<1.0
	11/20/2014	7.10	4,732.10	<0.50	<1.0	<1.0	<1.0
	1/9/2015	7.87	4,731.33	<1.0	<1.0	<1.0	<1.0
	4/10/2015	9.00	4,730.20	<1.0	<1.0	<1.0	<1.0
	7/16/2015	6.41	4,732.79	<1.0	<1.0	<1.0	<1.0
	10/6/2015	6.92	4,732.28	<1.0	<1.0	<1.0	<1.0
	1/15/2016	8.10	4,731.10	<1.0	<1.0	<1.0	<1.0
	4/29/2016	7.57	4,731.63	<1.0	<1.0	<1.0	<1.0
	7/15/2016	7.97	4,731.23	<1.0	<1.0	<1.0	<1.0
	10/26/2016	7.90	4,731.30	<1.0	<1.0	<1.0	<1.0
	1/19/2017	7.98	4,731.22	<1.0	<1.0	<1.0	<1.0
	4/20/2017	10.46	4,728.74	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW07	9/25/2014	7.05	4,732.48	<1.0	<1.0	<1.0	<1.0
	11/20/2014	7.41	4,732.12	<0.50	<1.0	<1.0	<1.0
	1/9/2015	8.14	4,731.39	<1.0	<1.0	<1.0	<1.0
	4/10/2015	9.31	4,730.22	<1.0	<1.0	<1.0	<1.0
	7/16/2015	6.70	4,732.83	<1.0	<1.0	<1.0	<1.0
	10/6/2015	7.20	4,732.33	<1.0	<1.0	<1.0	<1.0
	1/15/2016	8.32	4,731.21	<1.0	<1.0	<1.0	<1.0



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MW07	4/29/2016	7.80	4,731.73	<1.0	<1.0	<1.0	<1.0
	7/15/2016	8.18	4,731.35	<1.0	<1.0	<1.0	<1.0
	10/26/2016	8.20	4,731.33	<1.0	<1.0	<1.0	<1.0
	1/19/2017	8.20	4,731.33	<1.0	<1.0	<1.0	<1.0
	4/20/2017	10.62	4,728.91	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW08	9/25/2014	8.10	4,732.92	117	12.6	238	4,860
	11/20/2014	8.67	4,732.35	<0.50	<1.0	<1.0	298
	1/9/2015	9.50	4,731.52	87	39	60	2,200
	4/10/2015	10.58	4,730.44	89	45	<1.0	3,300
	7/16/2015	7.33	4,733.69	<1.0	<1.0	<1.0	<1.0
	10/6/2015	8.07	4,732.66	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.63	4,731.10	<1.0	<1.0	<1.0	<1.0
	4/29/2016	9.10	4,731.63	<1.0	<1.0	<1.0	<1.0
	7/15/2016	8.88	4,731.85	<1.0	<1.0	<1.0	<1.0
	10/26/2016	9.51	4,731.22	<1.0	<1.0	<1.0	<1.0
	1/19/2017	9.47	4,731.26	<1.0	<1.0	<1.0	<1.0
	4/20/2017	11.91	4,728.82	<1.0	<1.0	<1.0	<2.0
	8/9/2017	7.72	4,733.01	<1.0	<1.0	<1.0	<2.0
	10/3/2017	8.43	4,732.30	<1.0	<1.0	<1.0	<2.0
	1/2/2018	8.90	4,731.83	3.70	<1.00	12.1	66.1
	4/4/2018	10.20	4,730.53	4.0	1.5	5.1	23
	7/5/2018	9.40	4,731.33	3.3	<1.0	26	410
	10/4/2018	9.81	4,730.92	<1.0	<1.0	<1.0	<2.0
	1/7/2019	10.64	4,730.09	<1.0	<1.0	320	1,700
	4/1/2019	11.43	4,729.30	<1.0	<1.0	<1.0	<2.0
	7/16/2019	10.95	4,729.78	<1.0	<1.0	10	120
	10/31/2019	9.90	4,730.83	1.5	<1.0	29	130
MW09	9/25/2014	9.42	4,732.81	207	6,740	299	5,160
	11/20/2014	9.60	4,732.63	38.4	70.6	<1.0	782
	1/9/2015	7.90	4,731.67	34	2.7	120	5,000
	4/10/2015	11.60	4,727.97	<1.0	<1.0	<1.0	<1.0
	7/16/2015	9.32	4,730.25	14	48	<1.0	100
	10/6/2015	9.51	4,732.57	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.63	4,732.45	<1.0	<1.0	<1.0	<1.0
	4/29/2016	10.15	4,731.93	<1.0	<1.0	<1.0	9.6
	7/15/2016	10.44	4,731.64	<1.0	<1.0	<1.0	<1.0



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Monitoring Well	Date	Depth to Water (feet btoc)	Groundwater Elevation (AMSL)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW09	10/26/2016	10.55	4,731.53	170	1.8	23	900
	1/19/2017	10.50	4,731.58	<1.0	<1.0	<1.0	<1.0
	4/20/2017	12.73	4,729.35	<1.0	<1.0	<1.0	<2.0
	8/9/2017	9.52	4,732.56	<1.0	<1.0	<1.0	<2.0
	10/3/2017	9.71	4,732.37	<1.0	<1.0	<1.0	<2.0
	1/2/2018	9.91	4,732.17	<1.00	<1.00	1.26	17.0
	4/4/2018	11.13	4,730.95	<1.0	<1.0	<1.0	6.6
	7/5/2018	10.36	4,731.72	9.8	90	34	470
	10/4/2018	10.42	4,731.66	<1.0	<1.0	<1.0	<2.0
	1/7/2019	11.10	4,730.98	<1.0	<1.0	<1.0	<2.0
	4/1/2019	11.91	4,730.17	<1.0	<1.0	<1.0	<2.0
	7/16/2019	11.50	4,730.58	1.8	7.6	50	320
	10/31/2019	10.39	4,731.69	<1.0	<1.0	<1.0	<2.0
MW10	1/9/2015	9.17	4,731.94	<1.0	<1.0	<1.0	<1.0
	4/10/2015	10.19	4,730.92	<1.0	<1.0	<1.0	<1.0
	7/16/2015	7.65	4,733.46	<1.0	<1.0	<1.0	<1.0
	10/6/2015	8.21	4,732.90	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.38	4,731.73	<1.0	<1.0	<1.0	<1.0
	4/29/2016	8.79	4,732.32	<1.0	<1.0	<1.0	<1.0
	7/15/2016	9.08	4,732.03	<1.0	<1.0	<1.0	<1.0
	10/26/2016	9.70	4,731.41	<1.0	<1.0	<1.0	<1.0
	1/19/2017	9.70	4,731.41	<1.0	<1.0	<1.0	<1.0
	4/20/2017	11.78	4,729.57	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW11	1/9/2015	9.05	4,732.03	<1.0	<1.0	<1.0	2.1
	4/10/2015	10.03	4,731.05	<1.0	<1.0	<1.0	<1.0
	7/16/2015	7.80	4,733.28	<1.0	<1.0	<1.0	<1.0
	10/6/2015	8.10	4,732.98	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.34	4,731.74	<1.0	<1.0	<1.0	<1.0
	4/29/2016	9.60	4,731.48	<1.0	<1.0	<1.0	<1.0
	7/15/2016	8.93	4,732.15	<1.0	<1.0	<1.0	<1.0
	10/26/2016	9.10	4,731.98	<1.0	<1.0	<1.0	<1.0
	1/19/2017	9.10	4,731.98	<1.0	<1.0	<1.0	<1.0
	4/20/2017	11.52	4,729.56	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW12	1/9/2015	9.15	4,731.32	<1.0	<1.0	<1.0	<1.0
	4/10/2015	10.25	4,730.22	<1.0	<1.0	<1.0	<1.0
	7/16/2015	7.35	4,733.12	<1.0	<1.0	<1.0	<1.0



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MW12	10/6/2015	7.98	4,732.49	<1.0	<1.0	<1.0	<1.0
	1/15/2016	9.29	4,731.18	<1.0	<1.0	<1.0	<1.0
	4/29/2016	8.75	4,731.72	<1.0	<1.0	<1.0	<1.0
	7/15/2016	8.83	4,731.64	<1.0	<1.0	<1.0	<1.0
	10/26/2016	9.10	4,731.37	<1.0	<1.0	<1.0	<1.0
	1/19/2017	9.02	4,731.45	<1.0	<1.0	<1.0	<1.0
	4/20/2017	11.41	4,729.06	<1.0	<1.0	<1.0	<2.0
	8/9/2017	NM -REMOVED FROM MONITORING					
MW13	1/9/2015	9.80	4,731.35	990	220	130	3,900
	4/10/2015	10.85	4,730.30	1,100	25	<1.0	2,400
	7/16/2015	8.21	4,732.94	620	1,200	150	4,600
	10/6/2015	8.56	4,732.50	290	2,600	460	6,300
	1/15/2016	9.90	4,731.16	210	240	<1.0	3,700
	4/29/2016	9.40	4,731.66	71	59	<1.0	2,200
	7/15/2016	9.54	4,731.52	17	40	<1.0	3,100
	10/26/2016	9.75	4,731.31	3.8	2.5	7.6	3,300
	1/19/2017	9.66	4,731.40	21	1.8	<1.0	4,500
	4/20/2017	11.92	4,729.14	16	<1.0	<1.0	7,300
	8/9/2017	8.68	4,732.38	14	1.2	140	3,100
	10/3/2017	8.85	4,732.21	4.5	<1.0	<1.0	970
	1/2/2018	9.22	4,731.84	<4.00	<4.00	86.1	895
	4/4/2018	10.35	4,730.71	2.4	<1.0	74	340
	7/5/2018	9.67	4,731.39	2.9	<1.0	9.7	670
	10/4/2018	10.02	4,731.04	<1.0	<1.0	4.1	43
	1/7/2019	10.85	4,730.21	<1.0	<1.0	<1.0	<2.0
	4/1/2019	11.63	4,729.43	<1.0	<1.0	<1.0	<2.0
	7/16/2019	11.18	4,729.88	2.6	1.1	120	1,500
	10/31/2019	10.13	4,730.93	<1.0	<1.0	1.9	13
CDPHE WQCC Reg 41				5.0	560	700	1,400

NOTES:

AMSL - above mean sea level

btoc - below top of casing

µg/L - micrograms per liter

< - indicates result is less than the stated laboratory reporting limit

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B

Bold indicates result exceeds the applicable standard

CDPHE WQCC Reg 41 - Colorado Department of Public Health and Environment-Water Quality Control Commission
Regulation 41- The Basic Standards for Ground Water



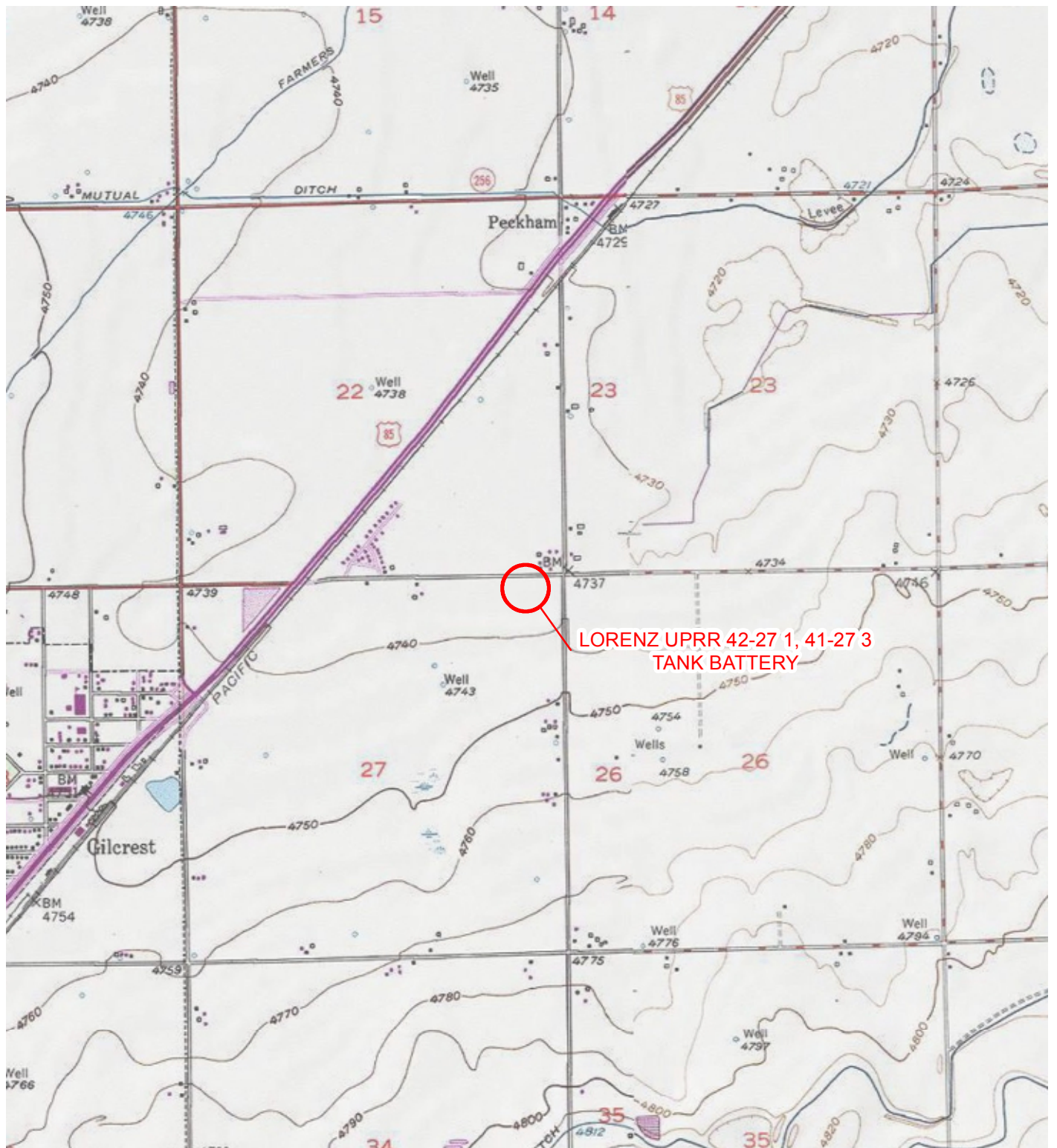
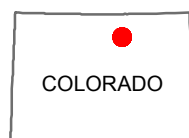
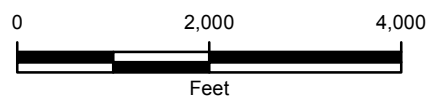


IMAGE COURTESY OF ESRI/USGS

LEGEND

○ SITE LOCATION



COLORADO

FIGURE 1
SITE LOCATION MAP
LORENZ UPRR 42-27 1, 41-27 3 TANK BATTERY
NENE SEC 27-T4N-R66W
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.





LEGEND

- ⊗ MONITORING WELL
- ⊗ MONITORING WELL REMOVED FROM MONITORING
- PIPELINE MARKER
- ↑ CALCULATED GROUNDWATER FLOW DIRECTION

- UNDERGROUND UTILITIES
- OE — OVERHEAD POWER LINE
- GROUNDWATER ELEVATION CONTOUR
- CONTOUR INTERVAL = 0.25 FEET
- GRADIENT = 0.024 FEET/FOOT

- - - EXCAVATION EXTENT
- x — x FENCE
- GROUNDWATER ELEVATIONS WERE MEASURED ON OCTOBER 31, 2019.

IMAGE COURTESY OF GOOGLE EARTH 2017

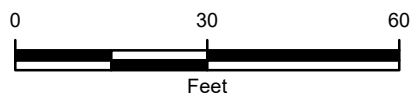
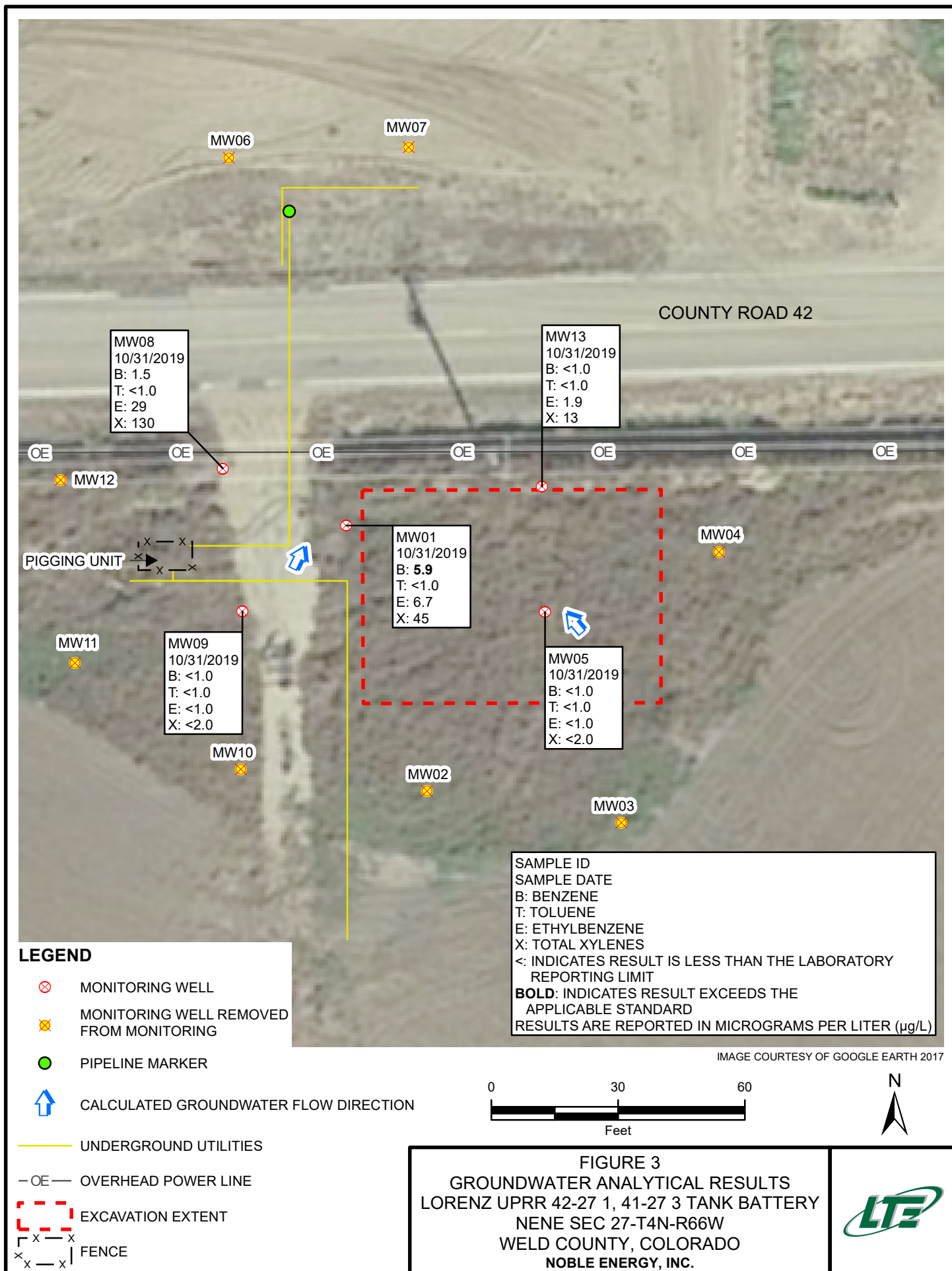


FIGURE 2
GROUNDWATER ELEVATION MAP
LORENZ UPRR 42-27 1, 41-27 3 TANK BATTERY
NENE SEC 27-T4N-R66W
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.





Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 14, 2019

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

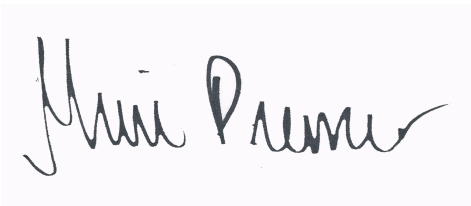
Arvada, CO 80003

RE: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Work Order # 1911013

Enclosed are the results of analyses for samples received by Summit Scientific on 11/01/19 14:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premier", on a light blue background.

Muri Premier For Paul Shrewsbury

President



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW05	1911013-01	Water	10/31/19 15:52	11/01/19 14:55
MW08	1911013-02	Water	10/31/19 16:10	11/01/19 14:55
MW09	1911013-03	Water	10/31/19 15:45	11/01/19 14:55
MW13	1911013-04	Water	10/31/19 16:00	11/01/19 14:55
MW01	1911013-05	Water	10/31/19 16:33	11/01/19 14:55

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

1911013

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: LT Environmental, Inc.
Address: 4600 West 60th Ave
City/State/Zip: Arvada, CO 80003
Phone: 303-433-9788 Fax: 303-433-1432
Sampler Name: Drew Bull, hyl

Project Manager: Jeremy Pike
E-Mail: Noble Remediation Team
Project Name: Lorenz UPRR 42-27 1, 41-27 3
Project Number: 008314023

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:								Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX								
MW05	10/31/19	15:52	3	X				X					X							Decant all samples
MW08	10/31/19	16:10	3	X				X					X							
MW09	10/31/19	15:45	3	X				X					X							
MW13	10/31/19	16:00	3	X				X					X							
MW01	10/31/19	16:33	3	X				X					X							
Relinquished by: <u>Drew Bull</u> Date/Time: <u>11-1-19 14:55</u>				Received by: <u>[Signature]</u> Date/Time: <u>11-1-19 14:55</u>				Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>												Notes: Invoice Jacob
Relinquished by:				Received by:				Sample Integrity: Temperature Upon Receipt: <u>3.5</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
Relinquished by:				Received in Lab by:																

1911013

Sample Receipt Checklist

S2 Work Order _____

Client: LTEClient Project ID: Noble-Lorenz UPRR 42-27 1, 41-27 3

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

☐ ☒ ☐ ☐ ☐
Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: _____
(Describe)

Temp (°C)

3.5

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.Muri
Custodian Printed Name or Initials[Signature]
Signature of Custodian11-1-19
Date/Time



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

MW05
1911013-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/31/19 15:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1911058	11/06/19	11/08/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/31/19 15:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		116 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		79.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.1 %		21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

MW08
1911013-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/31/19 16:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	1.5	1.0	ug/l	1	1911058	11/06/19	11/08/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	29	1.0	"	"	"	"	"	"	
Xylenes (total)	130	2.0	"	"	"	"	"	"	

Date Sampled: **10/31/19 16:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		81.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

MW09
1911013-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/31/19 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1911058	11/06/19	11/08/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/31/19 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.1 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

MW13
1911013-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/31/19 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1911058	11/06/19	11/08/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	1.9	1.0	"	"	"	"	"	"	
Xylenes (total)	13	2.0	"	"	"	"	"	"	

Date Sampled: **10/31/19 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		82.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

MW01
1911013-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/31/19 16:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	5.9	1.0	ug/l	1	1911058	11/06/19	11/08/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	6.7	1.0	"	"	"	"	"	"	
Xylenes (total)	45	2.0	"	"	"	"	"	"	

Date Sampled: **10/31/19 16:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		54.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1911058 - EPA 5030 Water MS

Blank (1911058-BLK1)

Prepared: 11/06/19 Analyzed: 11/08/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3	108	23-173				
Surrogate: Toluene-d8	10.6		"	13.3	79.5	20-170				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.5	21-167				

LCS (1911058-BS1)

Prepared: 11/06/19 Analyzed: 11/08/19

Benzene	40.3	1.0	ug/l	33.3	121	51-132				
Toluene	31.5	1.0	"	33.3	94.5	51-138				
Ethylbenzene	37.1	1.0	"	33.3	111	58-146				
m,p-Xylene	71.9	2.0	"	66.7	108	57-144				
o-Xylene	35.3	1.0	"	33.3	106	53-146				
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3	103	23-173				
Surrogate: Toluene-d8	11.0		"	13.3	82.2	20-170				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.8	21-167				

Matrix Spike (1911058-MS1)

Source: 1911013-01

Prepared: 11/06/19 Analyzed: 11/08/19

Benzene	39.6	1.0	ug/l	33.3	ND	119	34-141			
Toluene	30.8	1.0	"	33.3	ND	92.6	27-151			
Ethylbenzene	37.0	1.0	"	33.3	ND	111	29-160			
m,p-Xylene	72.0	2.0	"	66.7	ND	108	20-166			
o-Xylene	35.4	1.0	"	33.3	ND	106	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3	108	23-173				
Surrogate: Toluene-d8	10.9		"	13.3	81.8	20-170				
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3	95.4	21-167				

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1911058 - EPA 5030 Water MS

Matrix Spike Dup (1911058-MSD1)		Source: 1911013-01			Prepared: 11/06/19 Analyzed: 11/08/19					
Benzene	38.8	1.0	ug/l	33.3	ND	116	34-141	1.99	30	
Toluene	30.6	1.0	"	33.3	ND	91.8	27-151	0.781	30	
Ethylbenzene	37.0	1.0	"	33.3	ND	111	29-160	0.162	30	
m,p-Xylene	71.8	2.0	"	66.7	ND	108	20-166	0.292	30	
o-Xylene	35.8	1.0	"	33.3	ND	108	33-159	1.29	30	
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	23-173			
Surrogate: Toluene-d8	10.9		"	13.3		81.9	20-170			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.9	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Noble - Lorenz UPRR 42-27 1, 41-27 3-1

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
11/14/19 10:18

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference