

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
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					
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

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)
MW03	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
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			
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

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)
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
	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

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)
MW08	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
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
	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
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				
	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

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)
MW11	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
	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

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)
MW13	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
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

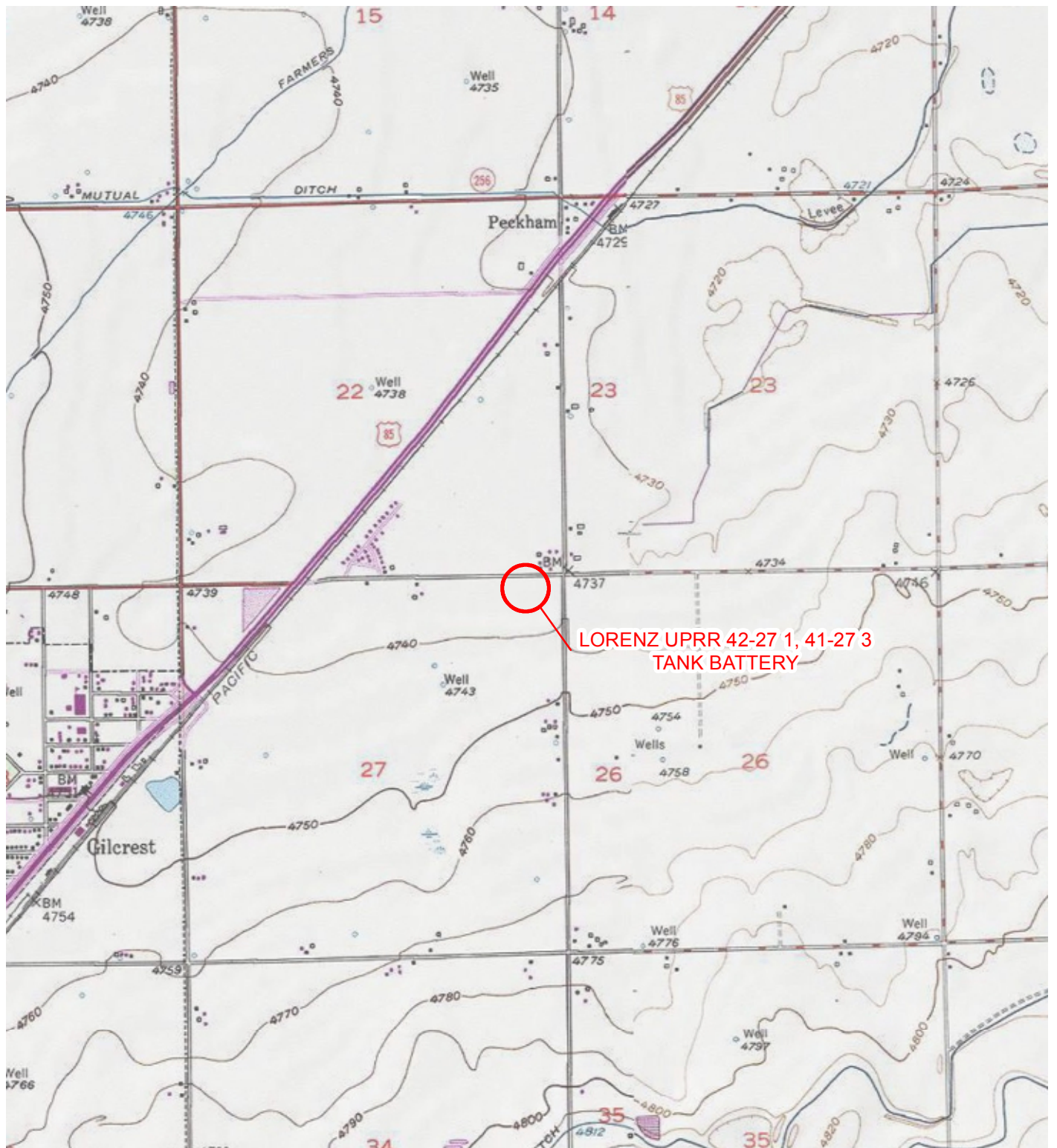
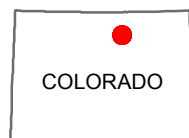
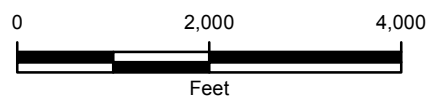


IMAGE COURTESY OF ESRI/USGS

LEGEND

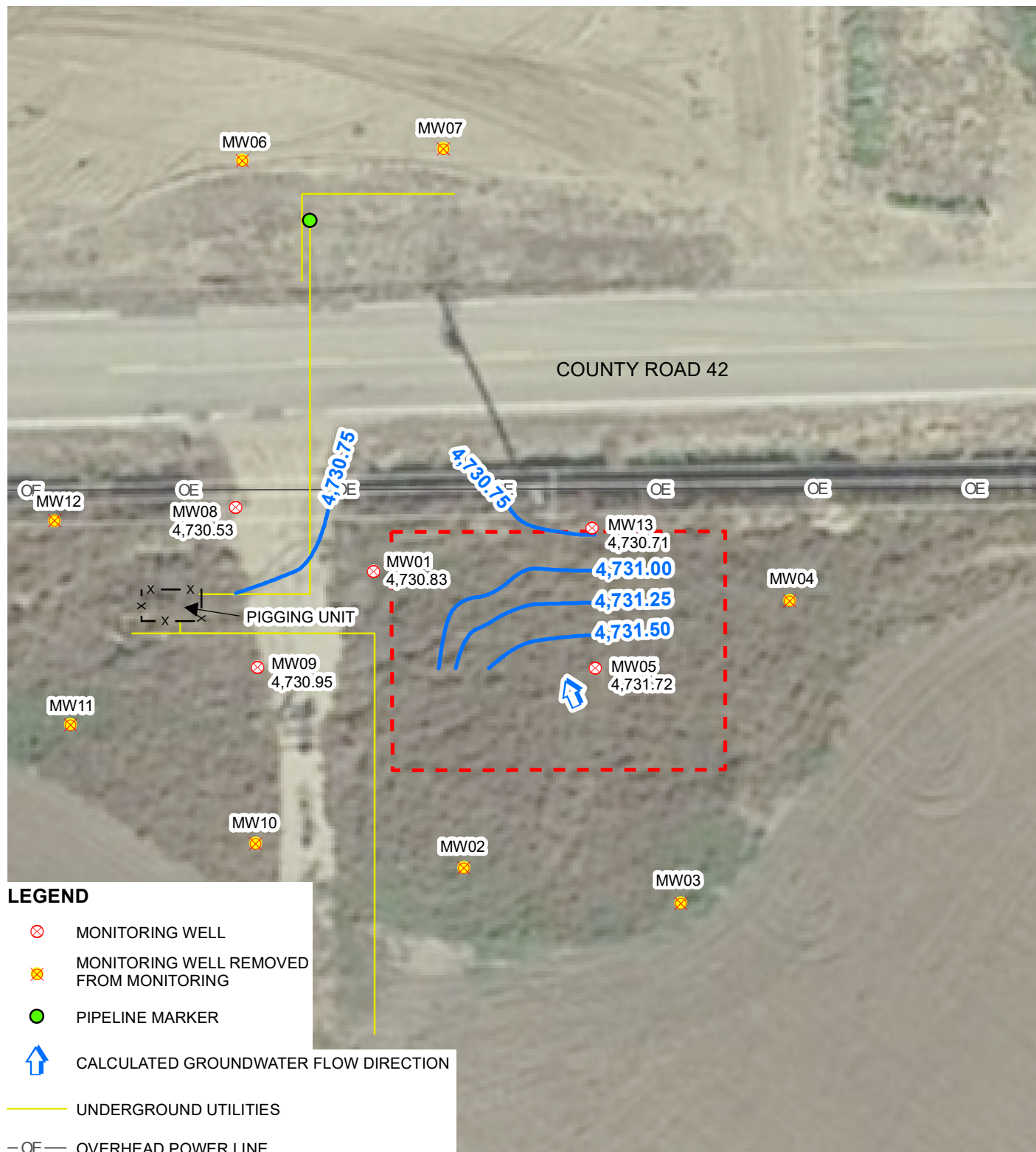
○ SITE LOCATION



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

 EXCAVATION EXTENT

x x FENCE

— GROUNDWATER ELEVATION CONTOUR;

CONTOUR INTERVAL = 0.25 FEET

GRADIENT = 0.034 FEET/FOOT

GROUNDWATER ELEVATIONS WERE MEASURED ON
APRIL 4, 2018

IMAGE COURTESY OF GOOGLE EARTH 2017

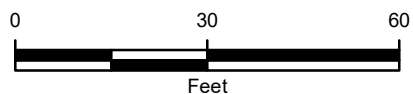
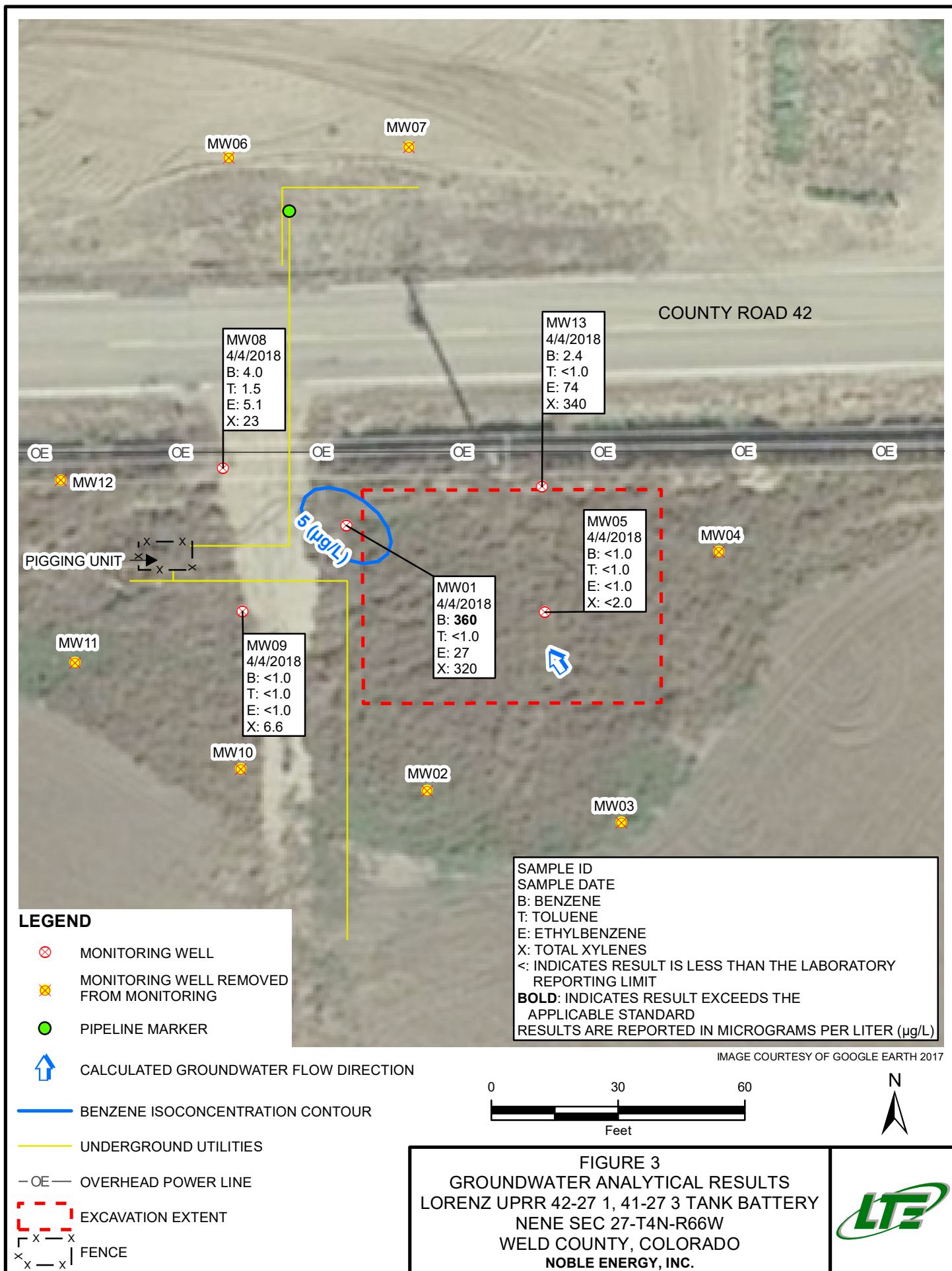


FIGURE 2
GROUNDWATER ELEVATION MAP
 LORENZ UPRR 42-27 1, 41-27 3 TANK BATTERY
 NENE SEC 27-T4N-R66W
 WELD COUNTY, COLORADO
NOBLE ENERGY, INC.





Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 13, 2018

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

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

Enclosed are the results of analyses for samples received by Summit Scientific on 04/04/18 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



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

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW05	1804041-01	Water	04/04/18 14:00	04/04/18 16:40
MW08	1804041-02	Water	04/04/18 14:17	04/04/18 16:40
MW09	1804041-03	Water	04/04/18 13:50	04/04/18 16:40
MW13	1804041-04	Water	04/04/18 14:42	04/04/18 16:40
MW01	1804041-05	Water	04/04/18 14:30	04/04/18 16:40

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

180404/

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: Glen Thompson

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	4/4/18	1400	3	X				X				X												Decant all samples	
MW08	4/4/18	1417	3	X				X				X													
MW09	4/4/18	1350	2	X				X				X													
MW13	4/4/18	1442	3	X				X				X													
MW01	4/4/18	1430	3	X				X				X													
Relinquished by:	Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)												Notes: Invoice Jacob on ice						
	4/4/18 1600				4/4/18 1600		Same Day <input type="checkbox"/>		72 Hours <input type="checkbox"/>																
Relinquished by:	Date/Time:		Received by:		Date/Time:		24 Hours <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>																
	4/4/18 1640				4/4/18 1640		48 Hours <input type="checkbox"/>																		
Relinquished by:	Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:																		
							Temperature Upon Receipt: 5.8°C																		
							Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		

Sample Receipt Checklist

S2 Work Order: 180404

Client: LTE

Client Project ID: Lorenz UPRR 42-271,41-273

Shipped Via: P/U

Airbill #: _____

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Temp (°C) 5.8

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.	✓			
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are short holding time analytes or samples due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		✓		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	✓			HCl
Note the type of preservative in the Comments column – HCL, H2SO4, NaOH, HNO3, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			✓	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			✓	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Nakita
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

4/4/18 1700
Date/Time



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

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

MW05
1804041-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1804031	04/05/18	04/05/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **04/04/18 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		89.5 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		88.6 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	80.8-120		"	"	"	"	

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

MW08
1804041-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 14:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	4.0	1.0	ug/l	1	1804031	04/05/18	04/06/18	EPA 8260B	
Toluene	1.5	1.0	"	"	"	"	"	"	
Ethylbenzene	5.1	1.0	"	"	"	"	"	"	
Xylenes (total)	23	2.0	"	"	"	"	"	"	

Date Sampled: **04/04/18 14:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94.8 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	80.8-120		"	"	"	"	

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

MW09
1804041-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1804031	04/05/18	04/06/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	6.6	2.0	"	"	"	"	"	"	

Date Sampled: **04/04/18 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	80.8-120		"	"	"	"	

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

MW13
1804041-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 14:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.4	1.0	ug/l	1	1804031	04/05/18	04/06/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	74	1.0	"	"	"	"	"	"	
Xylenes (total)	340	2.0	"	"	"	"	"	"	

Date Sampled: **04/04/18 14:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		95.5 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	80.8-120		"	"	"	"	

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

MW01
1804041-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/04/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	360	10	ug/l	10	1804031	04/05/18	04/06/18	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	"	"	
Ethylbenzene	27	1.0	"	"	"	"	"	"	
Xylenes (total)	320	2.0	"	"	"	"	"	"	

Date Sampled: **04/04/18 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		93.6 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	80.8-120		"	"	"	"	

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

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 1804031 - EPA 5030 Water MS

Blank (1804031-BLK1)

Prepared: 04/05/18 Analyzed: 04/06/18

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.2		86.0	57.9-139			
Surrogate: Toluene-d8	12.0		"	13.3		90.4	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	80.8-120			

LCS (1804031-BS1)

Prepared: 04/05/18 Analyzed: 04/06/18

Benzene	31.0	1.0	ug/l	33.3		93.1	60.1-131			
Toluene	34.0	1.0	"	33.3		102	65.9-127			
Ethylbenzene	39.5	1.0	"	33.3		118	65.1-129			
m,p-Xylene	81.7	2.0	"	66.7		123	66.8-127			
o-Xylene	38.8	1.0	"	33.3		117	61.2-120			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		87.0	57.9-139			
Surrogate: Toluene-d8	11.9		"	13.3		89.2	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.2	80.8-120			

Matrix Spike (1804031-MS1)

Source: 1804022-01

Prepared: 04/05/18 Analyzed: 04/06/18

Benzene	31.0	1.0	ug/l	33.3	ND	92.9	52.7-130			
Toluene	33.9	1.0	"	33.3	ND	102	57-127			
Ethylbenzene	39.2	1.0	"	33.3	ND	118	59.2-127			
m,p-Xylene	80.2	2.0	"	66.7	ND	120	53.2-132			
o-Xylene	38.5	1.0	"	33.3	ND	116	56.3-117			
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.5	57.9-139			
Surrogate: Toluene-d8	11.8		"	13.3		88.5	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.1		"	13.3		90.8	80.8-120			

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

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 1804031 - EPA 5030 Water MS

Matrix Spike Dup (1804031-MSD1)	Source: 1804022-01			Prepared: 04/05/18 Analyzed: 04/06/18						
Benzene	31.4	1.0	ug/l	33.3	ND	94.2	52.7-130	1.31	19.3	
Toluene	34.2	1.0	"	33.3	ND	103	57-127	0.763	18.7	
Ethylbenzene	39.7	1.0	"	33.3	ND	119	59.2-127	1.27	20	
m,p-Xylene	82.7	2.0	"	66.7	ND	124	53.2-132	3.16	20	
o-Xylene	39.1	1.0	"	33.3	ND	117	56.3-117	1.34	20	
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.8	57.9-139			
Surrogate: Toluene-d8	12.2		"	13.3		91.4	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.1	80.8-120			

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

Project Number: 008314023
Project Manager: Jeremy Pike

Reported:
04/13/18 09:16

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