



GROUNDWATER MONITORING REPORT

JUNE 2014

CHESNUT G 22-6 TANK BATTERY COGCC REMEDIATION #4316

LT Environmental, Inc. (LTE), under the direction of Noble Energy, Inc. (Noble), conducted groundwater monitoring activities at the Chesnut G 22-6 Tank Battery (Site). The Site is located 0.48 miles south of County Road 44 and 0.07 miles east of County Road 43 in Weld County, Colorado. The legal site description is the southwest quarter of the northwest quarter of Section 22, Township 4 North, Range 65 West, 6th Principal Meridian. The Site Location Map is provided as Figure 1. Site history and remediation activities were described in preceding reports, including Phase I and Phase II of the remediation program which involved excavation source removal and operation of an air sparging and soil vapor extraction (AS/SVE) system, respectively. Phase III of the remediation program included subsurface injections of Chemically Oxygenated Granular Activated Carbon (COGACTM), which is designed for *in-situ* biological remediation of petroleum hydrocarbon under aerobic conditions. This report details the second quarter 2014 groundwater monitoring event.

On January 9 through February 18, 2009, soil borings MW01 through MW30 were completed as temporary monitoring wells. On March 11, 2011, LTE, under direction of Noble, replaced two destroyed monitoring wells (MW18R and MW19R) and installed two new monitoring wells (MW31 and MW32) to delineate the potential extent of dissolved-phase petroleum hydrocarbon impact. On March 4, 2013, LTE, under the direction of Noble, replaced destroyed monitoring well MW03 with MW03R.

On June 27, 2014, LTE personnel, under the direction of Noble, conducted groundwater monitoring activities in 18 monitoring wells (MW01R, MW02, MW03R, MW04 through MW07, MW08R, MW09R, MW10 through MW13, MW15, MW16R, MW17R, MW23R, and MW26). Prior to purging, depth to static groundwater was measured and recorded for calculating well-specific target purge volumes and relative groundwater elevations. During the June 2014 monitoring event, groundwater ranged from 4.02 feet below top of casing (btoc) in monitoring well MW04 to 11.66 feet btoc in monitoring well MW09R. Groundwater was calculated to flow east-northeast with an average hydraulic gradient of 0.042 feet per foot. Relative groundwater elevations are presented on Figure 2 and summarized in Table 1. Following purging, samples were collected, placed on ice, then submitted with a complete chain of custody form to Origins Laboratory, Inc. of Denver, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency Method 8260C.

The Colorado Department of Public Health and Environment-Water Quality Control Commission has established Regulation 41-The Basic Standards for Ground Water (WQCC Reg 41) for BTEX at 5.0 micrograms per liter ($\mu\text{g/L}$), 560 $\mu\text{g/L}$, 700 $\mu\text{g/L}$, and 1,400 $\mu\text{g/L}$, respectively. Groundwater analytical results indicated MW05 and MW16R exceeded the WQCC Reg 41 standard for benzene at concentrations of 88.1 $\mu\text{g/L}$ and 6.1 $\mu\text{g/L}$, respectively. All remaining monitoring wells sampled were in compliance with applicable WQCC Reg 41

standards. Groundwater analytical results are presented on Figure 3 and summarized in Table 1. The laboratory analytical report is attached.

LTE, under the direction of Noble, will continue to conduct quarterly groundwater monitoring with the goal of obtaining four consecutive quarters with laboratory groundwater analytical results in compliance with applicable WQCC Reg 41 standards. The next quarterly groundwater monitoring event is scheduled for September 2014.

FIGURES

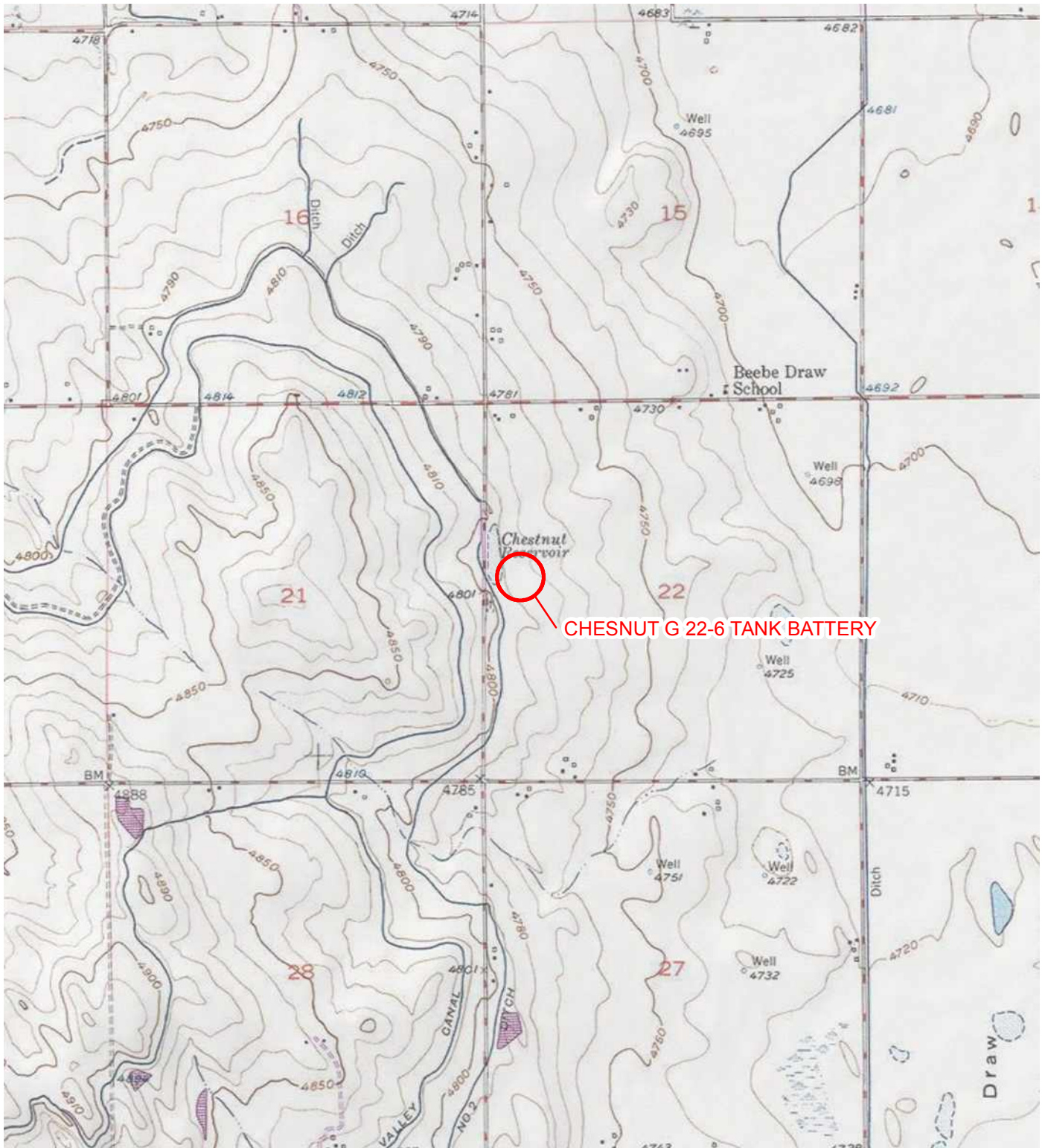
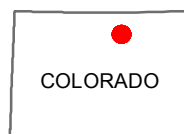
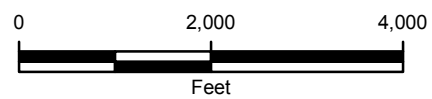


IMAGE COURTESY OF ESRI/USGS

LEGEND

○ SITE LOCATION



COLORADO

FIGURE 1
SITE LOCATION MAP
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





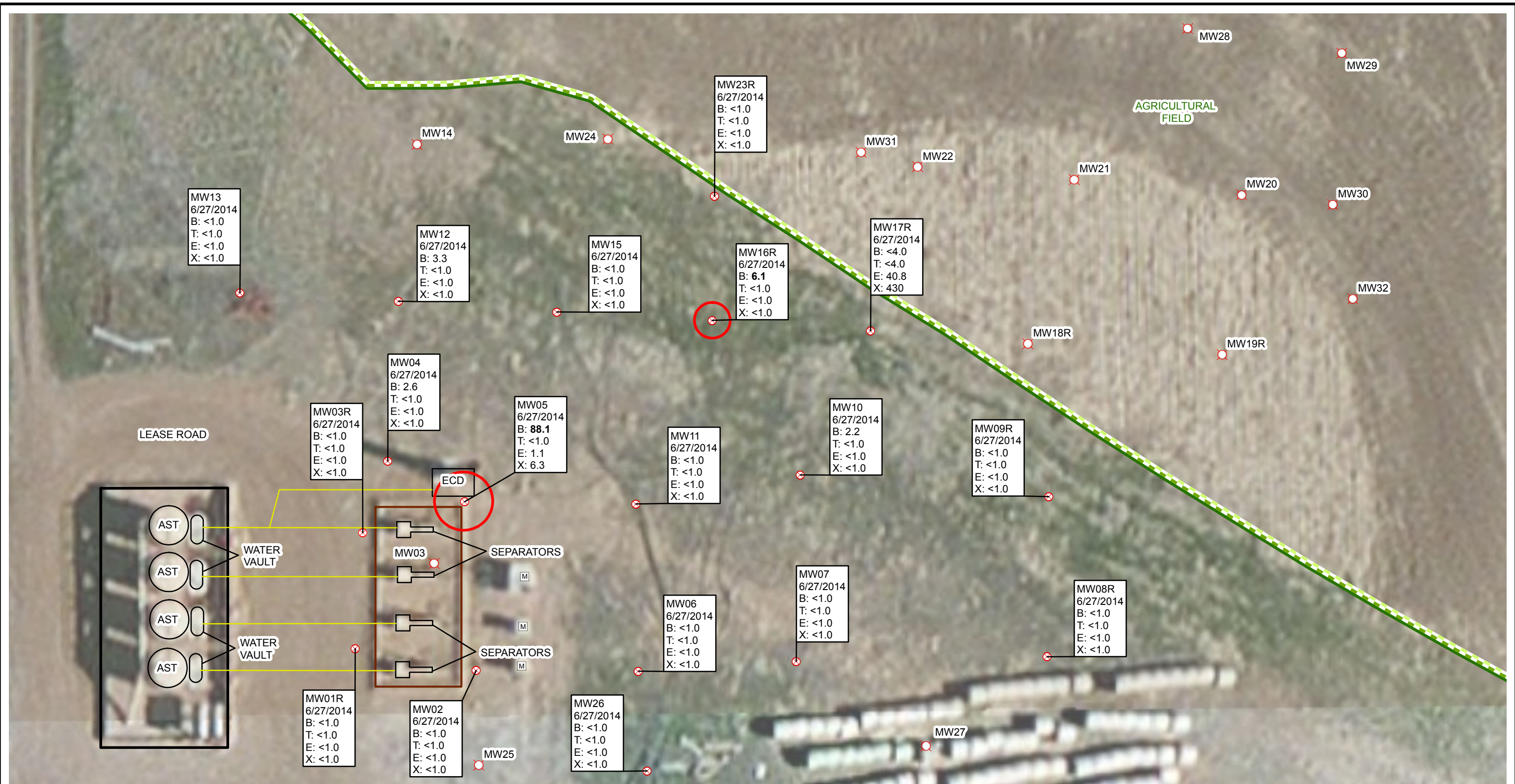
LEGEND

- | | | |
|---------------------------------------|---|-------------------------------|
| MONITORING WELL | UNDERGROUND UTILITY | METAL BERM |
| ABANDONED/DESTROYED MONITORING WELL | AGRICULTURAL FIELD BOUNDARY | DIRT BERM |
| METER HOUSE | RELATIVE GROUNDWATER ELEVATION CONTOUR IN FEET
CONTOUR INTERVAL = 2 FEET
GRADIENT = 0.042 FEET/FOOT
NM: NOT MEASURED | AST: ABOVEGROUND STORAGE TANK |
| CALCULATED GROUNDWATER FLOW DIRECTION | | ECD: EMISSION CONTROL DEVICE |

0 30 60
Feet

IMAGE COURTESY OF ESRI

FIGURE 2
RELATIVE GROUNDWATER ELEVATION MAP
JUNE 27, 2014
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



LEGEND

- ⊗ MONITORING WELL
- ⊗ ABANDONED/DESTROYED MONITORING WELL
- M METER HOUSE
- UNDERGROUND UTILITY
- AGRICULTURAL FIELD BOUNDARY
- METAL BERM
- DIRT BERM
- AST: ABOVEGROUND STORAGE TANK
- ECD: EMISSIONS CONTROL DEVICE
- JUNE 2014 BENZENE ISOCONCENTRATION CONTOUR (5 µg/L)

SAMPLE ID
SAMPLE DATE
B: BENZENE IN MICROGRAMS PER LITER (µg/L)
T: TOLUENE (µg/L)
E: ETHYLBENZENE (µg/L)
X: TOTAL XYLENES (µg/L)
<: LESS THAN LABORATORY METHOD DETECTION LIMIT
BOLD INDICATES RESULT EXCEEDS APPLICABLE STANDARD

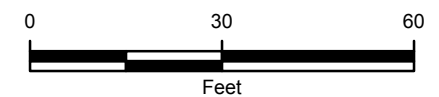


FIGURE 3
GROUNDWATER ANALYTICAL RESULTS
JUNE 27, 2014
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



TABLE

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW01	1/13/2009	15.11	NM	26,400	8,320	536	8,800
	3/5/2010	14.60	NM	26,100	6,270	666	11,090
	9/20/2010	NM	NM	Could not locate monitoring well			
MW01R	12/2/2010	8.68	88.25	5,600	161	37.1	1,550
	3/14/2011	15.33	81.60	1,010	<1.00	<1.00	12.8
	6/2/2011	9.89	87.04	1,080	<1.0	13.5	1,400
	9/12/2011	2.96	93.97	1,560	<1.0	84.5	1,510
	12/9/2011	7.80	89.13	427	<1.0	34.5	945
	3/22/2012	13.50	83.43	<1.0	4.17	<1.0	<1.0
	6/8/2012	4.56	92.37	5.8	<1	<1	19.3
	9/18/2012	4.04	92.89	7.1	<1.0	3.1	100
	12/3/2012	6.53	90.40	<1.0	<1.0	<1.0	<1.0
	3/22/2013	13.78	83.15	<1.0	<1.0	<1.0	2.89
	6/18/2013	5.35	91.58	<1.0	<1.0	<1.0	<1.0
	9/17/2013	1.60	95.33	<1.0	<1.0	<1.0	<1.0
	12/11/2013	8.41	88.52	<1.0	<1.0	1.12	4.16
	3/4/2014	13.79	83.14	<1.0	<1.0	<1.0	<1.0
	6/27/2014	4.18	92.75	<1.0	<1.0	<1.0	<1.0
MW02	1/13/2009	15.12	83.02	3,460	1,420	199	6,120
	3/5/2010	15.95	82.19	857	3.61	151	1,448.61
	9/20/2010	6.00	92.14	338	<1.0	104	2,256.14
	12/2/2010	10.04	88.10	125	<1.0	147	1,590
	3/14/2011	16.40	81.74	37.4	<1.00	22.0	266
	6/2/2011	13.02	85.12	<1.0	<1.0	<1.0	<3.0
	9/12/2011	5.38	92.76	4.9	<1.0	2.4	9.5
	12/9/2011	10.00	88.14	<1.0	<1.0	2.17	20.4
	3/22/2012	16.19	81.95	1	2.36	9.88	47.2
	6/8/2012	7.45	90.69	<1	<1	<1	<1
	9/18/2012	6.97	91.17	<1.0	<1.0	<1.0	2.1
	12/3/2012	8.49	89.65	<1.0	<1.0	<1.0	<1.0
	3/18/2013	15.99	82.15	<1.0	<1.0	14.8	60.3
	6/18/2013	7.62	90.52	<1.0	<1.0	<1.0	<1.0
	9/17/2013	3.46	94.68	<1.0	<1.0	<1.0	<1.0
	12/11/2013	10.39	87.75	<1.0	<1.0	<1.0	<1.0
	3/4/2014	16.18	81.96	<1.0	<1.0	12.9	25.8
	6/27/2014	6.60	91.54	<1.0	<1.0	<1.0	<1.0
MW03	1/13/2009	15.06	NM	11,700	7,860	195	5,950
	3/5/2010			Monitoring well destroyed			
MW03R	3/18/2013	17.72	NM	<2.0	<2.0	1.98	27.5
	6/18/2013	10.33	87.92	<1.0	<1.0	<1.0	<1.0
	9/17/2013	5.84	92.41	1.2	<1.0	<1.0	<1.0
	12/11/2013	12.71	85.54	<1.0	<1.0	<1.0	<1.0
	3/4/2014	17.72	80.53	1.9	<1.0	<1.0	<1.0
	6/27/2014	8.70	89.55	<1.0	<1.0	<1.0	<1.0

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW04	1/13/2009	13.13	84.15	19,700	7,460	555	9,990
	3/5/2010	15.71	81.57		Not sampled - Sheen on water		
	9/20/2010	3.70	93.58	563	<10.0	<10.0	6,027
	12/2/2010	9.33	87.95	664	42	19.1	4,710
	3/14/2011	14.94	82.34	713	<10.0	113	6,510
	6/2/2011	9.10	88.18	233	<1.0	31.8	457
	9/12/2011	3.40	93.88	23.8	<1.0	6.8	124
	12/9/2011	9.60	87.68	57.2	<1.0	3.62	90.3
	3/22/2012	14.21	83.07	295	5.33	5.99	53.7
	6/8/2012	4.57	92.71	14.3	<1	<1	14.4
	9/18/2012	3.32	93.96	3.5	<1.0	1.3	59.0
	12/3/2012	8.80	88.48	<1.0	<1.0	<1.0	<1.0
	3/18/2013	13.83	83.45	10.2	<1.0	1.49	6.27
	6/18/2013	5.54	91.74	27.7	<1.0	<1.0	<1.0
	9/17/2013	1.07	96.21	1.39	<1.0	1.27	3.68
	12/11/2013	8.69	88.59	1.26	<1.0	<1.0	<1.0
	3/4/2014	13.20	84.08	1.9	<1.0	1.3	<1.0
	6/27/2014	4.02	93.26	2.6	<1.0	<1.0	<1.0
MW05	1/13/2009	14.58	82.39	15,500	14,900	412	6,860
	3/5/2010	16.06	80.91		Not sampled - Sheen on water		
	9/20/2010	6.60	90.37	12,700	1,500	522	8,190
	12/2/2010	10.48	86.49	14,700	185	122	5,650
	3/14/2011	16.16	80.81	67.9	<1.00	<1.00	112
	6/2/2011	13.25	83.72	143	<1.0	<1.0	13.0
	9/12/2011	5.96	91.01	5,050	22.5	59.1	2,680
	12/9/2011	10.70	86.27	8,790	10.6	<10.0	659
	3/22/2012	NM	NM		Not Sampled - Dry		
	6/8/2012	8.36	88.61	337	<1	<1	4.4
	9/18/2012	7.68	89.29	1,249	1.1	3.8	59.3
	12/3/2012	10.08	86.89	<1.0	<1.0	<1.0	<1.0
	3/18/2013	16.25	80.72	<1.3	<1.3	<1.3	<4.0
	6/18/2013	9.58	87.39	2.44	<1.0	<1.0	1.88
	9/17/2013	4.21	92.76	7.97	<1.0	<1.0	2.27
	12/11/2013	10.70	86.27	155	<1.0	<1.0	6.04
	3/4/2014	15.92	81.05	49.8	<1.0	<1.0	<1.0
	6/27/2014	7.80	89.17	88.1	<1.0	1.1	6.3
MW06	2/19/2009	17.24	80.10	305	15.8	167	2,476
	3/5/2010	16.47	80.87	1.27	<1.0	8.77	9.60
	9/20/2010	6.95	90.39	<1.0	<1.0	3.51	13.0
	12/2/2010	11.01	86.33	<1.0	<1.0	28.8	205
	3/14/2011	16.91	80.43	<1.00	<1.00	42.8	317
	6/2/2011	14.30	83.04	<1.0	<1.0	2.1	4.9
	9/12/2011	6.51	90.83	<1.0	<1.0	<1.0	<3.0
	12/9/2011	10.80	86.54	<1.0	<1.0	<1.0	<3.0

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW06	3/22/2012	17.08	80.26	<1.0	<1.0	1.46	4.9
	6/8/2012	9.22	88.12	<1	<1	<1	<1
	9/18/2012	8.21	89.13	<1.0	<1.0	<1.0	<1.0
	12/3/2012	9.50	87.84	<1.0	<1.0	<1.0	<1.0
	3/18/2013	16.70	80.64	<1.0	<1.0	2.84	8.79
	6/18/2013	8.89	88.45	<1.0	<1.0	<1.0	<1.0
	9/17/2013	4.23	93.11	<1.0	<1.0	<1.0	<1.0
	12/11/2013	11.36	85.98	<1.0	<1.0	<1.0	<1.0
	3/4/2014	16.94	80.40	1.1	<1.0	<1.0	<1.0
	6/27/2014	7.84	89.50	<1.0	<1.0	<1.0	<1.0
MW07	2/19/2009	19.18	75.41	3.99	7.09	64.1	288.67
	3/5/2010	15.93	78.66	5.47	<1.0	4.11	55.02
	9/20/2010	7.35	87.24	<1.0	<1.0	<1.0	<3.0
	12/2/2010	10.32	84.27	<1.0	<1.0	<1.0	<1.0
	3/14/2011	16.12	78.47	<1.00	<1.00	<1.00	<3.00
	6/2/2011	14.59	80.00	<1.0	<1.0	<1.0	<3.0
	9/12/2011	6.25	88.34	<1.0	<1.0	<1.0	<3.0
	12/9/2011	NM	NM	Could not locate monitoring well			
	3/22/2012	16.42	78.17	<1.0	<1.0	<1.0	<1.0
	6/8/2012	8.65	85.94	<1	<1	<1	<1
	9/18/2012	8.12	86.47	<1.0	<1.0	<1.0	<1.0
	12/3/2012	9.14	85.45	<1.0	<1.0	<1.0	<1.0
	3/18/2013	16.13	78.46	<1.0	<1.0	<1.0	<3.0
	6/18/2013	8.72	85.87	<1.0	<1.0	<1.0	<1.0
	9/17/2013	3.62	90.97	<1.0	<1.0	<1.0	<1.0
	12/11/2013	10.54	84.05	<1.0	<1.0	<1.0	<1.0
	3/4/2014	16.08	78.51	<1.0	<1.0	<1.0	<1.0
	6/27/2014	7.85	86.74	<1.0	<1.0	<1.0	<1.0
MW08	2/19/2009	18.03	NM	34.3	2,000	202	4,213
MW08R	9/20/2010	10.90	83.61	1.21	<1.0	118	657.4
	12/2/2010	12.94	81.57	<1.0	<1.0	<1.0	119
	3/14/2011	18.61	75.90	<1.00	<1.00	<1.00	1,070
	6/2/2011	17.80	76.71	<1.0	<1.0	207	587
	9/12/2011	9.66	84.85	<1.0	<1.0	44.6	241
	12/9/2011	12.67	81.84	<1.0	<1.0	9.99	68.6
	3/22/2012	18.67	75.84	<1.0	8.37	16.3	109
	6/8/2012	11.99	82.52	<1	<1	1.7	26.1
	9/18/2012	11.34	83.17	<1.0	<1.0	1.5	4.5
	12/3/2012	11.88	82.63	<1.0	<1.0	2.65	20.2
	3/22/2013	18.68	75.83	<1.0	<1.0	8.47	103
	6/18/2013	12.10	82.41	<1.0	<1.0	1.98	6.85
	9/17/2013	7.41	87.10	<1.0	<1.0	1.65	4.80
	12/11/2013	12.78	81.73	<1.0	<1.0	<1.0	<1.0
	3/4/2014	18.23	76.28	<1.0	<1.0	5.0	14.9
	6/27/2014	11.35	83.16	<1.0	<1.0	<1.0	<1.0

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
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WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW09	2/19/2009	18.96	NM	1,250	23	19.0	25.28
MW09R	9/20/2010	10.75	82.99	3,350	<1.0	368	1,891.7
	12/2/2010	12.79	80.95	10.2	<10.0	85.2	392
	3/14/2011	17.67	76.07	422	<1.0	200	644
	6/2/2011	17.02	76.72	902	<1.0	303	1,490
	9/12/2011	9.57	84.17	1.1	<1.0	128	609
	12/9/2011	12.50	81.24	1.79	<1.0	13.7	28.5
	3/22/2012	17.81	75.93	1.64	8	14.5	43.4
	6/8/2012	12.34	81.4	<1	<1	5.9	8.9
	9/18/2012	11.43	82.31	<1.0	<1.0	<1.0	<1.0
	12/3/2012	12.00	81.74	<1.0	<1.0	<1.0	<1.0
	3/22/2013	17.92	75.82	<1.0	<1.0	<1.0	<1.0
	6/18/2013	12.70	81.04	<1.0	<1.0	12.7	16
	9/17/2013	7.32	86.42	<1.0	<1.0	<1.0	<1.0
	12/11/2013	12.50	81.24	<1.0	<1.0	<1.0	<1.0
	3/4/2014	17.36	76.38	<1.0	<1.0	<1.0	<1.0
	6/27/2014	11.66	82.08	<1.0	<1.0	<1.0	<1.0
MW10	2/19/2009	17.34	76.83	10,300	374	412	2,435
	3/5/2010	16.46	77.71	9,790	581	452	3,707
	9/20/2010	7.70	86.47	4,130	50.0	434	4,280
	12/2/2010	10.83	83.34	1,560	<10.0	33.5	1,100
	3/14/2011	12.25	81.92	1,070	<1.00	12.6	476
	6/2/2011	12.35	81.82	<1.0	<1.0	<1.0	<3.0
	9/12/2011	7.01	87.16	310	<1.0	107	250
	12/9/2011	10.62	83.55	243	<1.0	53.2	279
	3/22/2012	16.37	77.80	30.3	1.75	<1.0	<1.0
	6/8/2012	9.60	84.57	18.2	<1	<1	<1
	9/18/2012	8.78	85.39	<1.0	<1.0	<1.0	<1.0
	12/3/2012	10.02	84.15	<1.0	<1.0	<1.0	<1.0
	3/18/2013	16.30	77.87	<1.0	<1.0	<1.0	<3.0
	6/18/2013	10.34	83.83	28.8	<1.0	<1.0	<1.0
	9/17/2013	4.09	90.08	<1.0	<1.0	<1.0	<1.0
	12/11/2013	10.78	83.39	<1.0	<1.0	<1.0	<1.0
	3/4/2014	15.95	78.22	<1.0	<1.0	<1.0	<1.0
	6/27/2014	9.06	85.11	2.2	<1.0	<1.0	<1.0
MW11	2/19/2009	17.67	78.49	6,130	48.5	43.4	818.6
	3/5/2010	16.38	79.78	10,500	<1.0	10.1	497
	9/20/2010	7.20	88.96	2,670	<1.0	<1.0	235.88
	12/2/2010	11.55	84.61	835	<10.0	<10.0	57.1
	3/14/2011	16.27	79.89	180	<1.00	<1.00	<3.00
	6/2/2011	13.82	82.34	<1.0	<1.0	<1.0	<3.0
	9/12/2011	7.11	89.05	<1.0	<1.0	<1.0	<3.0
	12/9/2011	11.31	84.85	<1.0	<1.0	<1.0	<3.0
	3/22/2012	16.85	79.31	<1.0	2	<1.0	<1.0
	6/8/2012	9.76	86.40	<1	<1	<1	<1

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW11	9/18/2012	8.87	87.29	<1.0	<1.0	<1.0	<1.0
	12/3/2012	10.78	85.38	<1.0	<1.0	<1.0	<1.0
	3/18/2013	16.98	79.18	<1.0	<1.0	<1.0	<3.0
	6/18/2013	10.55	85.61	<1.0	<1.0	<1.0	<1.0
	9/17/2013	4.61	91.55	<1.0	<1.0	<1.0	<1.0
	12/11/2013	11.42	84.74	<1.0	<1.0	<1.0	<1.0
	3/4/2014	16.35	79.81	<1.0	<1.0	<1.0	<1.0
	6/27/2014	8.92	87.24	<1.0	<1.0	<1.0	<1.0
MW12	2/19/2009	14.81	81.95	1,970	257	138	423
	3/5/2010	14.63	82.13	465	24.5	42.7	199.9
	9/20/2010	4.10	92.66	9.92	<1.0	<1.0	171.07
	12/2/2010	13.41	83.35	<1.0	<1.0	<1.0	<1.0
	3/14/2011	14.91	81.85	2.35	<1.00	13.5	250
	6/2/2011	10.42	86.34	<1.0	<1.0	<1.0	<3.0
	9/12/2011	3.47	93.29	58.7	<1.0	<1.0	6.4
	12/9/2011	10.35	86.41	<1.0	<1.0	<1.0	<3.0
	3/22/2012	15.25	81.51	<1.0	2	1.4	4.98
	6/8/2012	5.76	91.00	12.8	<1	3.7	13.7
	9/18/2012	4.41	92.35	<1.0	<1.0	<1.0	1.4
	12/3/2012	10.34	86.42	<1.0	<1.0	<1.0	<1.0
	3/18/2013	15.33	81.43	<1.0	<1.0	1.41	<3.0
	6/18/2013	8.31	88.45	19.8	<1.0	<1.0	<1.0
	9/17/2013	2.40	94.36	1.13	<1.0	<1.0	<1.0
	12/11/2013	10.07	86.69	<1.0	<1.0	<1.0	<1.0
	3/4/2014	14.35	82.41	<1.0	<1.0	<1.0	<1.0
	6/27/2014	5.38	91.38	3.3	<1.0	<1.0	<1.0
MW13	2/19/2009	15.13	83.32	<1.0	<1.0	<1.0	<3.0
	3/5/2010	15.11	83.34	<1.0	<1.0	<1.0	<3.0
	9/20/2010	3.80	94.65	<1.0	<1.0	<1.0	<3.0
	12/2/2010	10.60	87.85	<1.0	<1.0	<1.0	<1.0
	3/14/2011	15.21	83.24	<1.00	<1.00	<1.00	<3.00
	6/2/2011	7.41	91.04	<1.0	<1.0	<1.0	<3.0
	9/12/2011	2.94	95.51	<1.0	<1.0	<1.0	<3.0
	12/9/2011	11.04	87.41	<1.0	<1.0	<1.0	<3.0
	3/22/2012	15.73	82.72	<1.0	1.87	<1.0	<1.0
	6/8/2012	5.01	93.44	<1	<1	<1	<1
	9/18/2012	3.77	94.68	<1.0	<1.0	<1.0	<1.0
	12/3/2012	10.90	87.55	<1.0	<1.0	<1.0	<1.0
	3/18/2013	15.76	82.69	<1.0	<1.0	<1.0	<3.0
	6/18/2013	7.36	91.09	<1.0	<1.0	<1.0	<1.0
	9/17/2013	2.48	95.97	<1.0	<1.0	<1.0	<1.0
	12/11/2013	10.68	87.77	<1.0	<1.0	<1.0	<1.0
	3/4/2014	14.81	83.64	<1.0	<1.0	<1.0	<1.0
	6/27/2014	4.70	93.75	<1.0	<1.0	<1.0	<1.0

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW14	2/19/2009	14.32	NM	<1.0	<1.0	<1.0	<3.0
	3/5/2012	NM	NM	Monitoring well destroyed			
MW15	2/19/2009	14.95	78.55	2,490	3,380	150	1,732
	3/5/2010	13.00	80.50	998	1,890	141	2,026
	9/20/2010	2.80	90.70	107	<1.0	<1.0	417.3
	12/2/2010	8.24	85.26	133	<1.0	<1.0	470
	3/14/2011	12.96	80.54	181	<1.00	135	1,580
	6/2/2011	7.44	86.06	35.4	<1.0	15.6	308
	9/12/2011	2.44	91.06	15.2	<1.0	29.1	249
	12/9/2011	10.30	83.20	<1.0	<1.0	<1.0	<3.0
	3/22/2012	15.31	78.19	<1.0	2.09	<1.0	<1.0
	6/8/2012	5.40	88.10	<1	<1	<1	<1
	9/18/2012	6.38	87.12	<1.0	<1.0	<1.0	<1.0
	12/3/2012	10.06	83.44	<1.0	<1.0	<1.0	<1.0
	3/18/2013	13.81	79.69	36.9	<1.0	60.5	84.6
	6/18/2013	9.20	84.30	<1.0	<1.0	<1.0	<1.0
	9/17/2013	1.02	92.48	7.73	<1.0	9.72	21.9
	12/11/2013	10.16	83.34	<1.0	<1.0	<1.0	<1.0
	3/4/2014	14.58	78.92	<1.0	<1.0	<1.0	<1.0
	6/27/2014	6.85	86.65	<1.0	<1.0	<1.0	<1.0
MW16	2/19/2009	15.25	NM	1,060	16.2	156	37.5
MW16R	3/22/2012	15.58	NM	<1.0	<1.0	<1.0	<1.0
	6/8/2012	8.59	NM	1.1	<1	4.2	<1
	9/18/2012	6.78	NM	3.1	<1.0	2.8	<1.0
	12/3/2012	10.71	NM	<1.0	<1.0	<1.0	<1.0
	3/19/2013	15.91	NM	2.52	<1.0	<1.0	<3.0
	6/18/2013	10.81	NM	19.7	<1.0	<1.0	<1.0
	9/17/2013	3.37	NM	<1.0	<1.0	<1.0	<1.0
	12/11/2013	10.48	NM	<1.0	<1.0	<1.0	<1.0
	3/4/2014	14.80	NM	<1.0	<1.0	<1.0	<1.0
	6/27/2014	8.00	NM	6.1	<1.0	<1.0	<1.0
MW17	2/19/2009	15.93 <15.91>	NM	3,680	9,940	775	1,075
MW17R	9/20/2010	7.92	84.99	<1.0	<1.0	46.1	256.31
	12/2/2010	11.10	81.81	3.10	<1.0	112	570
	3/14/2011	15.62	77.29	9.19	<1.00	52.6	470
	6/2/2011	13.53	79.38	3.4	<1.0	16.5	448
	9/12/2011	6.93	85.98	<1.0	<1.0	45.1	275
	12/9/2011	11.11	81.80	9.28	<1.0	141	1,090
	3/22/2012	15.89	77.02	5.4	2.59	85.3	616
	6/8/2012	10.44	82.47	4.1	<1	117	668
	9/18/2012	9.07	83.84	5.2	<1.0	95.1	522
	12/3/2012	10.98	81.93	24.8	<1.0	97.5	684
	3/22/2013	16.16	76.75	51.4	<1.0	158	1,460
	6/18/2013	11.84	81.07	3.23	<1.0	82.1	474
	9/17/2013	4.61	88.30	3.26	<1.0	40.7	145
	12/11/2013	11.03	81.88	<4.0	<4.0	106	769
	3/4/2014	15.31	77.60	<4.0	<4.0	51.6	351
	6/27/2014	9.76	83.15	<4.0	<4.0	40.8	430

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW18	2/19/2009	16.22	NM	1,410	80.9	51.0	229.6
MW18R	3/14/2011	16.25	75.85	<1.00	<1.00	<1.00	<3.00
	6/2/2011	15.24	76.86	<1.0	<1.0	<1.0	<3.0
	9/12/2011	8.76	83.34	<1.0	<1.0	<1.0	<3.0
	2/28/2012	NM	NM	Abandoned per COGCC approval			
MW19	2/25/2009	16.67	NM	329	<1.0	1.45	6.65
MW19R	3/14/2011	17.44	74.27	<1.00	<1.00	<1.00	<3.00
	6/2/2011	16.96	74.75	<1.0	<1.0	<1.0	<3.0
	9/12/2011	10.61	81.10	<1.0	<1.0	<1.0	<3.0
	2/28/2012	NM	NM	Abandoned per COGCC approval			
MW20	2/25/2009	17.55	NM	2.13	2.34	16.0	3.27
				Monitoring well destroyed			
MW21	2/25/2009	16.87	NM	2.00	<1.0	<1.0	11.9
				Monitoring well destroyed			
MW22	2/25/2009	16.70	NM	8.70	40.7	3.78	22.65
				Monitoring well destroyed			
MW23	2/25/2009	15.25	NM	32.9	5.29	9.01	38.36
MW23R	3/22/2012	16.20	NM	<1.0	2.33	<1.0	<1.0
	6/8/2012	9.38	NM	<1	<1	<1	<1
	9/18/2012	7.33	NM	<1.0	<1.0	<1.0	1.3
	12/3/2012	11.88	NM	<1.0	<1.0	<1.0	<1.0
	3/19/2013	16.67	NM	<1.0	<1.0	<1.0	<3.0
	6/18/2013	11.73	NM	<1.0	<1.0	<1.0	<1.0
	9/17/2013	4.33	NM	<1.0	<1.0	<1.0	<1.0
	12/11/2013	11.26	NM	<1.0	<1.0	<1.0	<1.0
	3/4/2014	15.31	NM	<1.0	<1.0	<1.0	<1.0
	6/27/2014	8.75	NM	<1.0	<1.0	<1.0	<1.0
MW24	2/25/2009	14.87	NM	1.02	<1.0	<1.0	<3.0
				Monitoring well destroyed			
MW25	2/25/2009	18.20	NM	<1.0	<1.0	<1.0	4.01
	3/5/2010	17.46	NM	<1.0	<1.0	<1.0	<3.0
				Monitoring well destroyed			
MW26	2/25/2009	18.02	78.14	<1.0	<1.0	<1.0	<3.0
	3/5/2010	17.36	78.80	<1.0	<1.0	<1.0	<3.0
	9/20/2010	5.10	91.06	<1.0	<1.0	<1.0	<3.0
	12/2/2010	8.78	87.38	<1.0	<1.0	<1.0	<1.0
	3/14/2011	15.63	80.53	<1.00	<1.00	<1.00	<3.00
	6/2/2011	11.67	84.49	<1.0	<1.0	<1.0	<3.0
	9/12/2011	4.02	92.14	<1.0	<1.0	<1.0	<3.0
	12/9/2011	NM	NM	<1.0	<1.0	<1.0	<3.0
	3/22/2012	NM	NM	Not Sampled - Dry			
	6/8/2012	5.99	90.17	<1	<1	<1	<1
	9/18/2012	5.69	90.47	<1.0	<1.0	<1.0	<1.0
	12/3/2012	7.26	88.90	<1.0	<1.0	<1.0	<1.0

TABLE 1 (Continued)

GROUNDWATER ANALYTICAL RESULTS
CHESNUT G 22-6 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Monitoring Well	Date	Depth to Water/<LNAPL> (feet btoc)	Relative Groundwater Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW26	3/18/2013	NM	NM		Not Sampled - Dry		
	6/18/2013	5.91	90.25	<1.0	<1.0	<1.0	<1.0
	9/17/2013	2.20	93.96	<1.0	<1.0	<1.0	<1.0
	12/11/2013	9.49	86.67	<1.0	<1.0	<1.0	<1.0
	3/4/2014	NM	NM		Not Sampled - Dry		
	6/27/2014	5.23	90.93	<1.0	<1.0	<1.0	<1.0
MW27	2/25/2009	19.98	NM	<1.0	<1.0	<1.0	<3.0
					Monitoring well destroyed		
MW28	2/25/2009	15.82	NM	<1.0	<1.0	<1.0	<3.0
					Monitoring well destroyed		
MW29	2/25/2009	16.77	NM	<1.0	<1.0	<1.0	<3.0
					Monitoring well destroyed		
MW30	2/25/2009	16.86	NM	<1.0	<1.0	<1.0	<3.0
					Monitoring well destroyed		
MW31	3/14/2011	14.83	76.86	<1.00	<1.00	<1.00	<3.00
	6/2/2011	11.11	80.58	<1.0	<1.0	<1.0	<3.0
	9/12/2011				Monitoring well destroyed		
MW32	3/14/2011	18.47	72.41	<1.00	<1.00	<1.00	<3.00
	6/2/2011	18.27	72.61	<1.0	<1.0	<1.0	<3.0
	9/12/2011	12.92	77.96	<1.0	<1.0	<1.0	<3.0
	2/28/2012	NM	NM		Abandoned per COGCC approval		
CDPHE WQCC Reg 41				5.0	560	700	1,400

NOTES:

btoc - below top of casing

COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

LNAPL - light non-aqueous phase liquid

NM - not measured

< indicates result is less than the stated laboratory reporting limit

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

BOLD indicates result exceeds 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

ATTACHMENT
LABORATORY ANALYTICAL REPORT



July 02, 2014

LT Environmental, Inc.

Charles Greeson

4600 West 60th Avenue

Arvada

CO 80003

Project Name - Noble - Chestnut G 22-6

Project Number - NEP0839

Attached are your analytical results for Noble - Chestnut G 22-6 received by Origins Laboratory, Inc. June 27, 2014. This project is associated with Origins project number X406350-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01R	X406350-01	Water	June 27, 2014 13:00	06/27/2014 15:30
MW02	X406350-02	Water	June 27, 2014 13:05	06/27/2014 15:30
MW03R	X406350-03	Water	June 27, 2014 13:10	06/27/2014 15:30
MW04	X406350-04	Water	June 27, 2014 13:15	06/27/2014 15:30
MW06	X406350-05	Water	June 27, 2014 13:20	06/27/2014 15:30
MW07	X406350-06	Water	June 27, 2014 13:25	06/27/2014 15:30
MW08R	X406350-07	Water	June 27, 2014 13:30	06/27/2014 15:30
MW09R	X406350-08	Water	June 27, 2014 13:35	06/27/2014 15:30
MW10	X406350-09	Water	June 27, 2014 13:40	06/27/2014 15:30
MW11	X406350-10	Water	June 27, 2014 13:45	06/27/2014 15:30
MW12	X406350-11	Water	June 27, 2014 13:50	06/27/2014 15:30
MW13	X406350-12	Water	June 27, 2014 13:55	06/27/2014 15:30
MW15	X406350-13	Water	June 27, 2014 14:00	06/27/2014 15:30
MW17R	X406350-14	Water	June 27, 2014 14:05	06/27/2014 15:30

Origins Laboratory, Inc.



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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW16R	X406350-15	Water	June 27, 2014 14:10	06/27/2014 15:30
MW23R	X406350-16	Water	June 27, 2014 14:15	06/27/2014 15:30
MW26	X406350-17	Water	June 27, 2014 14:20	06/27/2014 15:30
MW05	X406350-18	Water	June 27, 2014 14:25	06/27/2014 15:30

Origins Laboratory, Inc.



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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

ORIGINS
LABORATORY, INC

www.originslaboratory.com

X406350

page 1 of 2

Client: LTE Project Manager/Send Report To: Charles Greeson
Address: _____ Email Address: Greeson@ltenv.com
Telephone Number: _____ Project Name/Number: Chestnut G22-6 NEP0839
Samples Collected By: Wilson Evans, J. Sta

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #		
MW01R	6/27/14	1300	3	X				X			BTEX	Lab filter
MW02		1305										
MW03R		1310										
MW04		1315										
MW06		1320										
MW07		1325										
MW08R		1330										
MW09R		1335										
MW10		1340										
MW11		1345										
Relinquished By:	Date: 6/27/14	Time: 1538	Received By:				Date: 6/27/14			Time: 1530	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard	
Relinquished By:	Date:	Time:	Received By:				Date:			Time:		

Comments:

Date Results Needed:

Origins Laboratory, Inc.

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

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X406350

page 2 of 2

ORIGINS LABORATORY, INC

Client: LT

Project Manager/Send Report To: Charles Greeson



Email Address: Greeson@ltenv.com

Project Name/Number: Chestnut G 22-6 NEP0839

Samples Collected By: Jayson Crangle

Address: _____

Telephone Number: _____

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix			Analysis/Method	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa	Other		
MW12	6/27/14	1350	3	X				X				X	Lab Filter 1
MW13		1355											2
MW15		1400											3
MW17R		1405											4
MW16R		1410											5
MW23R		1415											6
MW26		1420											7
MW05		1425											8
													9
													10
Relinquished By: 	Date: 6/27/14	Time: 1530											Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard
Relinquished By: 	Date: 6/27/14	Time: 1530											

Date Results Needed:

Comments:

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Origins Laboratory, Inc.

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.

Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: X406350

Client: LTE

Client Project ID: Chestnut 622-6

Checklist Completed by: Jeff Smith

Shipped Via: H/D

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

Date/time completed: 6/30/14 8:18

Airbill #: 123

Matrix(s) Received: (Check all that apply): Soil/Solid Water Other:

Cooler Number/Temperature: 121.3 °C 1 °C 1 °C (Describe)

Thermometer ID: 7002

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		X		Sampled Same Day
Is there ice present (document if blue ice is used)		X		
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HT's due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		X		Samples will be analyzed within 7 Days of Collection
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW01R

6/27/2014 1:00:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X406350-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.9 %	87.3-113	"	"	"
Surrogate: Toluene-d8	100 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW02

6/27/2014 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4

94.7 % 87.3-113

" " "

Surrogate: Toluene-d8

101 % 90.9-108

" " "

Surrogate: 4-Bromofluorobenzene

106 % 88.6-111

" " "

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW03R

6/27/2014 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	93.6 %	87.3-113	"	"	"
Surrogate: Toluene-d8	102 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW04

6/27/2014 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-04 (Water)

BTEX by EPA 8260C

Benzene	2.6	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.4 %	87.3-113			"	"	"
Surrogate: Toluene-d8	101 %	90.9-108			"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111			"	"	"

Origins Laboratory, Inc.



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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW06

6/27/2014 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.7 %	87.3-113	"	"	"
Surrogate: Toluene-d8	101 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW07

6/27/2014 1:25:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X406350-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	95.2 %	87.3-113	"	"	"
Surrogate: Toluene-d8	101 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW08R

6/27/2014 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4

96.7 % 87.3-113

"

"

"

Surrogate: Toluene-d8

102 % 90.9-108

"

"

"

Surrogate: 4-Bromofluorobenzene

103 % 88.6-111

"

"

"

Origins Laboratory, Inc.



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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW09R

6/27/2014 1:35:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X406350-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.0 %	87.3-113	"	"	"
Surrogate: Toluene-d8	101 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW10
6/27/2014 1:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-09 (Water)

BTEX by EPA 8260C

Benzene	2.2	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	95.6 %	87.3-113			"	"	"
Surrogate: Toluene-d8	102 %	90.9-108			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	88.6-111			"	"	"

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW11

6/27/2014 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/02/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4

95.8 % 87.3-113

"

"

"

Surrogate: Toluene-d8

100 % 90.9-108

"

"

"

Surrogate: 4-Bromofluorobenzene

105 % 88.6-111

"

"

"

Origins Laboratory, Inc.



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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW12

6/27/2014 1:50:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X406350-11 (Water)

BTEX by EPA 8260C

Benzene	3.3	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.2 %	87.3-113	"	"	"
Surrogate: Toluene-d8	102 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW13

6/27/2014 1:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.2 %	87.3-113	"	"	"
Surrogate: Toluene-d8	102 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW15

6/27/2014 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-13 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4

96.2 % 87.3-113

"

"

"

Surrogate: Toluene-d8

101 % 90.9-108

"

"

"

Surrogate: 4-Bromofluorobenzene

103 % 88.6-111

"

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Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW17R

6/27/2014 2:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-14 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	4F30009	06/30/2014	07/01/2014
Toluene	ND	4.0	"	"	"	"	"
Ethylbenzene	40.8	4.0	"	"	"	"	"
Xylenes, total	430	4.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4
Surrogate: Toluene-d8
Surrogate: 4-Bromofluorobenzene

96.2 % 87.3-113
101 % 90.9-108
103 % 88.6-111

" "
" "
" "

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW16R

6/27/2014 2:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-15 (Water)

BTEX by EPA 8260C

Benzene	6.1	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	94.3 %	87.3-113			"	"	"
Surrogate: Toluene-d8	101 %	90.9-108			"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111			"	"	"

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW23R

6/27/2014 2:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.2 %	87.3-113	"	"	"
Surrogate: Toluene-d8	101 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

MW26

6/27/2014 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	96.9 %	87.3-113	"	"	"
Surrogate: Toluene-d8	102 %	90.9-108	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	88.6-111	"	"	"

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

MW05

6/27/2014 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X406350-18 (Water)

BTEX by EPA 8260C

Benzene	88.1	1.0	ug/L	1	4F30009	06/30/2014	07/01/2014	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	1.1	1.0	"	"	"	"	"	
Xylenes, total	6.3	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.5 %	87.3-113			"	"	"	
Surrogate: Toluene-d8	102 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	88.6-111			"	"	"	

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Blank (4F30009-BLK1)

Prepared: 06/30/2014 Analyzed: 07/01/2014

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5	97.2		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	101		90.9-108			
Surrogate: 4-Bromofluorobenzene	65		"	62.5	104		88.6-111			

Origins Laboratory, Inc.



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.

Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Charles Greeson

Project Number: NEP0839

Project: Noble - Chestnut G 22-6

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Blank (4F30009-BLK2)

Prepared: 06/30/2014 Analyzed: 07/01/2014

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5	96.5		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	101		90.9-108			
Surrogate: 4-Bromofluorobenzene	65		"	62.5	103		88.6-111			

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Noelle Doyle Mathis, President

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

Charles Greeson
Project Number: NEP0839
Project: Noble - Chestnut G 22-6

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

LCS (4F30009-BS1)

Prepared: 06/30/2014 Analyzed: 07/01/2014

Benzene	59.2	1.0	ug/L	50.0	118	75-126
Toluene	56.5	1.0	"	50.0	113	78.7-126
Ethylbenzene	58.8	1.0	"	50.0	118	81-130
m,p-Xylene	117	2.0	"	100	117	77.2-133
o-Xylene	58.0	1.0	"	50.0	116	77.9-126
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5	88.1	87.3-113
Surrogate: Toluene-d8	63		"	62.5	100	90.9-108
Surrogate: 4-Bromofluorobenzene	65		"	62.5	104	88.6-111

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Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

LCS (4F30009-BS2)

Prepared: 06/30/2014 Analyzed: 07/01/2014

Benzene	51.8	1.0	ug/L	50.0		104	75-126			
Toluene	48.4	1.0	"	50.0		96.8	78.7-126			
Ethylbenzene	50.1	1.0	"	50.0		100	81-130			
m,p-Xylene	100	2.0	"	100		100	77.2-133			
o-Xylene	50.9	1.0	"	50.0		102	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.2	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		99.9	90.9-108			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	88.6-111			

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Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Matrix Spike (4F30009-MS1)		Source: X406327-01			Prepared: 06/30/2014 Analyzed: 07/01/2014					
Benzene	58.9	1.0	ug/L	50.0	ND	118	74-130			
Toluene	57.5	1.0	"	50.0	ND	115	73-131			
Ethylbenzene	60.3	1.0	"	50.0	ND	121	76-132			
m,p-Xylene	117	2.0	"	100	ND	117	69-139			
o-Xylene	58.3	1.0	"	50.0	ND	117	74-131			
Surrogate: 1,2-Dichloroethane-d4	54		"	62.5		85.6	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		99.4	90.9-108			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	88.6-111			

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Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Matrix Spike (4F30009-MS2)		Source: X406327-02			Prepared: 06/30/2014 Analyzed: 07/01/2014					
Benzene	160	1.0	ug/L	50.0	93.9	132	74-130			QM-07
Toluene	203	1.0	"	50.0	147	113	73-131			
Ethylbenzene	238	1.0	"	50.0	187	102	76-132			
m,p-Xylene	675	2.0	"	100	602	73.3	69-139			
o-Xylene	315	1.0	"	50.0	263	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.2	87.3-113			S-04
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	88.6-111			

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Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Matrix Spike Dup (4F30009-MSD1)		Source: X406327-01			Prepared: 06/30/2014 Analyzed: 07/01/2014					
Benzene	58.2	1.0	ug/L	50.0	ND	116	74-130	1.26	20	
Toluene	56.0	1.0	"	50.0	ND	112	73-131	2.61	20	
Ethylbenzene	57.7	1.0	"	50.0	ND	115	76-132	4.39	20	
m,p-Xylene	106	2.0	"	100	ND	106	69-139	9.80	20	
o-Xylene	54.1	1.0	"	50.0	ND	108	74-131	7.37	20	
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.3	87.3-113			S-04
Surrogate: Toluene-d8	62		"	62.5		98.7	90.9-108			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	88.6-111			

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Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4F30009 - EPA 5030B (Water)

Matrix Spike Dup (4F30009-MSD2)		Source: X406327-02			Prepared: 06/30/2014 Analyzed: 07/01/2014					
Benzene	148	1.0	ug/L	50.0	93.9	108	74-130	7.61	20	
Toluene	190	1.0	"	50.0	147	85.6	73-131	6.95	20	
Ethylbenzene	223	1.0	"	50.0	187	72.1	76-132	6.39	20	QM-07
m,p-Xylene	645	2.0	"	100	602	42.8	69-139	4.62	20	QM-07
o-Xylene	301	1.0	"	50.0	263	74.4	74-131	4.63	20	
Surrogate: 1,2-Dichloroethane-d4	53		"	62.5		85.4	87.3-113			S-04
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	88.6-111			

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Project: Noble - Chestnut G 22-6

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported at a wet weight basis.

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