



## GROUNDWATER MONITORING REPORT JUNE 2014

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### 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, 6<sup>th</sup> 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 (COGAC<sup>TM</sup>), 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**

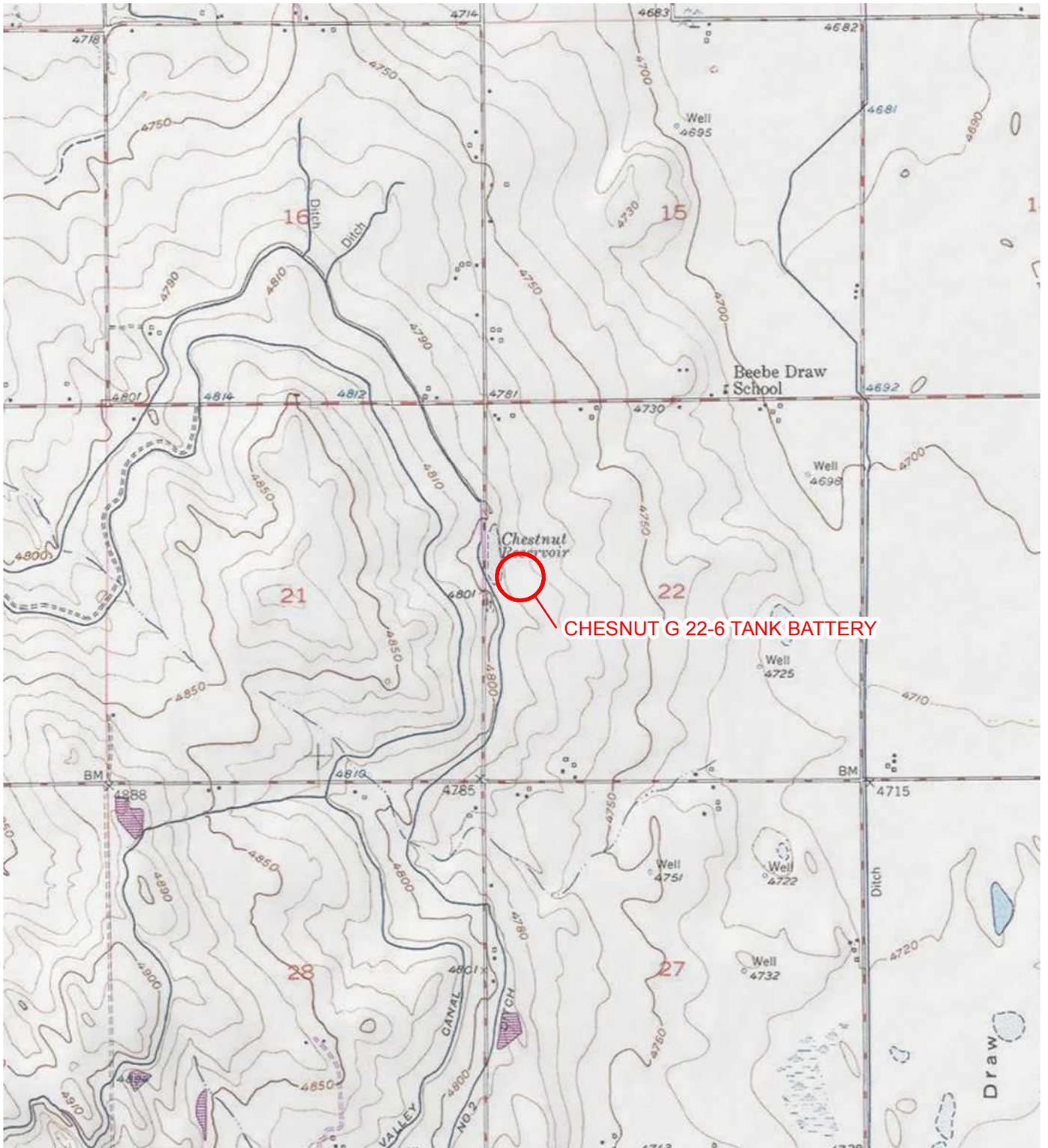
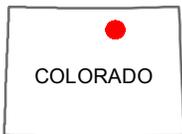
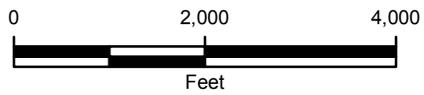


IMAGE COURTESY OF ESRI/USGS

**LEGEND**

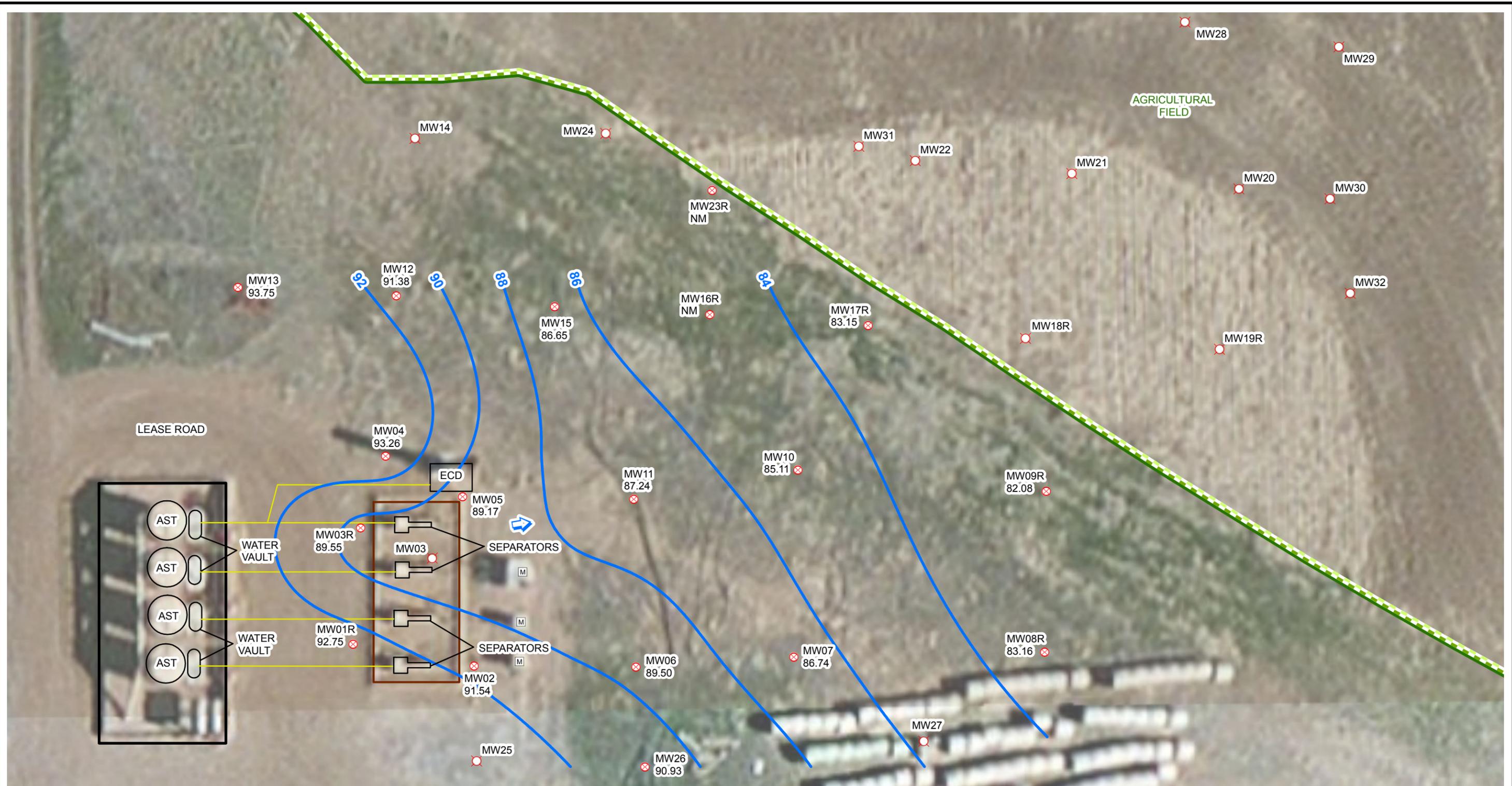
 SITE LOCATION



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



**NOBLE ENERGY, INC.**



**LEGEND**

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

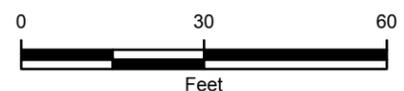
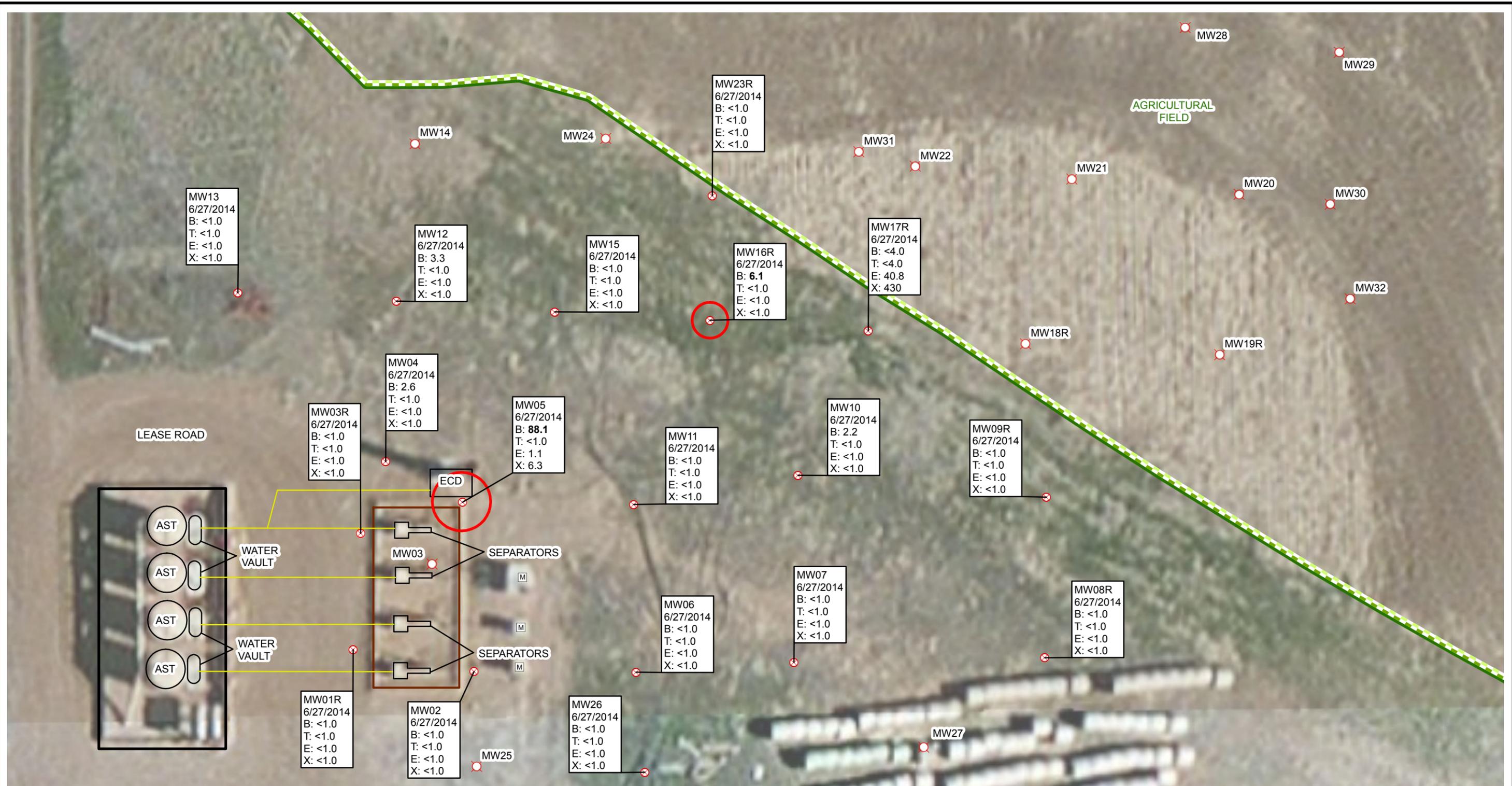


IMAGE COURTESY OF ESRI

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

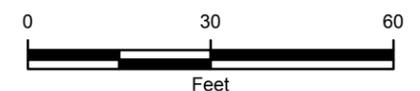




**LEGEND**

- ⊗ 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.



IMAGE COURTESY OF ESRI

## **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                                    | <b>26,400</b>                    | <b>8,320</b>   | 536                 | <b>8,800</b>         |
|                 | 3/5/2010   | 14.60                              | NM                                    | <b>26,100</b>                    | <b>6,270</b>   | 666                 | <b>11,090</b>        |
|                 | 9/20/2010  | NM                                 | NM                                    | Could not locate monitoring well |                |                     |                      |
| MW01R           | 12/2/2010  | 8.68                               | 88.25                                 | <b>5,600</b>                     | 161            | 37.1                | <b>1,550</b>         |
|                 | 3/14/2011  | 15.33                              | 81.60                                 | <b>1,010</b>                     | <1.00          | <1.00               | 12.8                 |
|                 | 6/2/2011   | 9.89                               | 87.04                                 | <b>1,080</b>                     | <1.0           | 13.5                | <b>1,400</b>         |
|                 | 9/12/2011  | 2.96                               | 93.97                                 | <b>1,560</b>                     | <1.0           | 84.5                | <b>1,510</b>         |
|                 | 12/9/2011  | 7.80                               | 89.13                                 | <b>427</b>                       | <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                                 | <b>5.8</b>                       | <1             | <1                  | 19.3                 |
|                 | 9/18/2012  | 4.04                               | 92.89                                 | <b>7.1</b>                       | <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                                 | <b>3,460</b>                     | <b>1,420</b>   | 199                 | <b>6,120</b>         |
|                 | 3/5/2010   | 15.95                              | 82.19                                 | <b>857</b>                       | 3.61           | 151                 | <b>1,448.61</b>      |
|                 | 9/20/2010  | 6.00                               | 92.14                                 | <b>338</b>                       | <1.0           | 104                 | <b>2,256.14</b>      |
|                 | 12/2/2010  | 10.04                              | 88.10                                 | <b>125</b>                       | <1.0           | 147                 | <b>1,590</b>         |
|                 | 3/14/2011  | 16.40                              | 81.74                                 | <b>37.4</b>                      | <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                                    | <b>11,700</b>                    | <b>7,860</b>   | 195                 | <b>5,950</b>         |
|                 | 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                                 | <b>19,700</b>  | <b>7,460</b>                 | 555                 | <b>9,990</b>         |
|                 | 3/5/2010   | 15.71                              | 81.57                                 |                | Not sampled - Sheen on water |                     |                      |
|                 | 9/20/2010  | 3.70                               | 93.58                                 | <b>563</b>     | <10.0                        | <10.0               | <b>6,027</b>         |
|                 | 12/2/2010  | 9.33                               | 87.95                                 | <b>664</b>     | 42                           | 19.1                | <b>4,710</b>         |
|                 | 3/14/2011  | 14.94                              | 82.34                                 | <b>713</b>     | <10.0                        | 113                 | <b>6,510</b>         |
|                 | 6/2/2011   | 9.10                               | 88.18                                 | <b>233</b>     | <1.0                         | 31.8                | 457                  |
|                 | 9/12/2011  | 3.40                               | 93.88                                 | <b>23.8</b>    | <1.0                         | 6.8                 | 124                  |
|                 | 12/9/2011  | 9.60                               | 87.68                                 | <b>57.2</b>    | <1.0                         | 3.62                | 90.3                 |
|                 | 3/22/2012  | 14.21                              | 83.07                                 | <b>295</b>     | 5.33                         | 5.99                | 53.7                 |
|                 | 6/8/2012   | 4.57                               | 92.71                                 | <b>14.3</b>    | <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                                 | <b>10.2</b>    | <1.0                         | 1.49                | 6.27                 |
|                 | 6/18/2013  | 5.54                               | 91.74                                 | <b>27.7</b>    | <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                                 | <b>15,500</b>  | <b>14,900</b>                | 412                 | <b>6,860</b>         |
|                 | 3/5/2010   | 16.06                              | 80.91                                 |                | Not sampled - Sheen on water |                     |                      |
|                 | 9/20/2010  | 6.60                               | 90.37                                 | <b>12,700</b>  | <b>1,500</b>                 | 522                 | <b>8,190</b>         |
|                 | 12/2/2010  | 10.48                              | 86.49                                 | <b>14,700</b>  | 185                          | 122                 | <b>5,650</b>         |
|                 | 3/14/2011  | 16.16                              | 80.81                                 | <b>67.9</b>    | <1.00                        | <1.00               | 112                  |
|                 | 6/2/2011   | 13.25                              | 83.72                                 | <b>143</b>     | <1.0                         | <1.0                | 13.0                 |
|                 | 9/12/2011  | 5.96                               | 91.01                                 | <b>5,050</b>   | 22.5                         | 59.1                | <b>2,680</b>         |
|                 | 12/9/2011  | 10.70                              | 86.27                                 | <b>8,790</b>   | 10.6                         | <10.0               | 659                  |
|                 | 3/22/2012  | NM                                 | NM                                    |                | Not Sampled - Dry            |                     |                      |
|                 | 6/8/2012   | 8.36                               | 88.61                                 | <b>337</b>     | <1                           | <1                  | 4.4                  |
|                 | 9/18/2012  | 7.68                               | 89.29                                 | <b>1,249</b>   | 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                                 | <b>7.97</b>    | <1.0                         | <1.0                | 2.27                 |
|                 | 12/11/2013 | 10.70                              | 86.27                                 | <b>155</b>     | <1.0                         | <1.0                | 6.04                 |
| 3/4/2014        | 15.92      | 81.05                              | <b>49.8</b>                           | <1.0           | <1.0                         | <1.0                |                      |
| 6/27/2014       | 7.80       | 89.17                              | <b>88.1</b>                           | <1.0           | 1.1                          | 6.3                 |                      |
| MW06            | 2/19/2009  | 17.24                              | 80.10                                 | <b>305</b>     | 15.8                         | 167                 | <b>2,476</b>         |
|                 | 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                                 | <b>5.47</b>    | <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                                    | <b>34.3</b>    | <b>2,000</b>                     | 202                 | <b>4,213</b>         |
| 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  
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) |
|-----------------|------------|------------------------------------|---------------------------------------|----------------|----------------|---------------------|----------------------|
| MW09            | 2/19/2009  | 18.96                              | NM                                    | <b>1,250</b>   | 23             | 19.0                | 25.28                |
| MW09R           | 9/20/2010  | 10.75                              | 82.99                                 | <b>3,350</b>   | <1.0           | 368                 | <b>1,891.7</b>       |
|                 | 12/2/2010  | 12.79                              | 80.95                                 | <b>10.2</b>    | <10.0          | 85.2                | 392                  |
|                 | 3/14/2011  | 17.67                              | 76.07                                 | <b>422</b>     | <1.0           | 200                 | 644                  |
|                 | 6/2/2011   | 17.02                              | 76.72                                 | <b>902</b>     | <1.0           | 303                 | <b>1,490</b>         |
|                 | 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                                 | <b>10,300</b>  | 374            | 412                 | <b>2,435</b>         |
|                 | 3/5/2010   | 16.46                              | 77.71                                 | <b>9,790</b>   | 581            | 452                 | <b>3,707</b>         |
|                 | 9/20/2010  | 7.70                               | 86.47                                 | <b>4,130</b>   | 50.0           | 434                 | <b>4,280</b>         |
|                 | 12/2/2010  | 10.83                              | 83.34                                 | <b>1,560</b>   | <10.0          | 33.5                | 1,100                |
|                 | 3/14/2011  | 12.25                              | 81.92                                 | <b>1,070</b>   | <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                                 | <b>310</b>     | <1.0           | 107                 | 250                  |
|                 | 12/9/2011  | 10.62                              | 83.55                                 | <b>243</b>     | <1.0           | 53.2                | 279                  |
|                 | 3/22/2012  | 16.37                              | 77.80                                 | <b>30.3</b>    | 1.75           | <1.0                | <1.0                 |
|                 | 6/8/2012   | 9.60                               | 84.57                                 | <b>18.2</b>    | <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                                 | <b>28.8</b>    | <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                                 | <b>6,130</b>   | 48.5           | 43.4                | 818.6                |
|                 | 3/5/2010   | 16.38                              | 79.78                                 | <b>10,500</b>  | <1.0           | 10.1                | 497                  |
|                 | 9/20/2010  | 7.20                               | 88.96                                 | <b>2,670</b>   | <1.0           | <1.0                | 235.88               |
|                 | 12/2/2010  | 11.55                              | 84.61                                 | <b>835</b>     | <10.0          | <10.0               | 57.1                 |
|                 | 3/14/2011  | 16.27                              | 79.89                                 | <b>180</b>     | <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                                 | <b>1,970</b>   | 257            | 138                 | 423                  |
|                 | 3/5/2010   | 14.63                              | 82.13                                 | <b>465</b>     | 24.5           | 42.7                | 199.9                |
|                 | 9/20/2010  | 4.10                               | 92.66                                 | <b>9.92</b>    | <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                                 | <b>58.7</b>    | <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                                 | <b>12.8</b>    | <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                                 | <b>19.8</b>    | <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                                 | <b>2,490</b>              | <b>3,380</b>   | 150                 | <b>1,732</b>         |
|                 | 3/5/2010   | 13.00                              | 80.50                                 | <b>998</b>                | <b>1,890</b>   | 141                 | <b>2,026</b>         |
|                 | 9/20/2010  | 2.80                               | 90.70                                 | <b>107</b>                | <1.0           | <1.0                | 417.3                |
|                 | 12/2/2010  | 8.24                               | 85.26                                 | <b>133</b>                | <1.0           | <1.0                | 470                  |
|                 | 3/14/2011  | 12.96                              | 80.54                                 | <b>181</b>                | <1.00          | 135                 | <b>1,580</b>         |
|                 | 6/2/2011   | 7.44                               | 86.06                                 | <b>35.4</b>               | <1.0           | 15.6                | 308                  |
|                 | 9/12/2011  | 2.44                               | 91.06                                 | <b>15.2</b>               | <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                                 | <b>36.9</b>               | <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                                 | <b>7.73</b>               | <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                                    | <b>1,060</b>              | 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                                    | <b>19.7</b>               | <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                                    | <b>6.1</b>                | <1.0           | <1.0                | <1.0                 |
| MW17            | 2/19/2009  | 15.93 <15.91>                      | NM                                    | <b>3,680</b>              | <b>9,940</b>   | <b>775</b>          | 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                                 | <b>9.19</b>               | <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                                 | <b>9.28</b>               | <1.0           | 141                 | 1,090                |
|                 | 3/22/2012  | 15.89                              | 77.02                                 | <b>5.4</b>                | 2.59           | 85.3                | 616                  |
|                 | 6/8/2012   | 10.44                              | 82.47                                 | 4.1                       | <1             | 117                 | 668                  |
|                 | 9/18/2012  | 9.07                               | 83.84                                 | <b>5.2</b>                | <1.0           | 95.1                | 522                  |
|                 | 12/3/2012  | 10.98                              | 81.93                                 | <b>24.8</b>               | <1.0           | 97.5                | 684                  |
|                 | 3/22/2013  | 16.16                              | 76.75                                 | <b>51.4</b>               | <1.0           | 158                 | <b>1,460</b>         |
|                 | 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                                    | <b>1,410</b>                 | 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                                    | <b>329</b>                   | <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                                    | <b>8.70</b>                  | 40.7           | 3.78                | 22.65                |
|                 |            |                                    |                                       | Monitoring well destroyed    |                |                     |                      |
| MW23            | 2/25/2009  | 15.25                              | NM                                    | <b>32.9</b>                  | 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 |                     |                      |
| <b>CDPHE WQCC Reg 41</b> |            |                                    |                                       | <b>5.0</b>     | <b>560</b>                   | <b>700</b>          | <b>1,400</b>         |

**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

&lt; 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



X406350

www.originslaboratory.com

page 1 of 2

Client: LTE Project Manager/Send Report To: Charles Greeson  
 Address: \_\_\_\_\_ Email Address: CGreeson@ltenv.com  
 Telephone Number: \_\_\_\_\_ Project Name/Number: Chestnut G22-6 NEP0839  
 Samples Collected By: Wilson Ewing, 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 <sub>3</sub> | 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:        | Time:           | Received By:       | Date:   | Time:            | Turnaround Time:   |             |      |             |                 |                     |
|                       |              | 6/27/14      | 1538            |                    |         |                  | Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> |             |      |             |                 |                     |
| Relinquished By:      |              | Date:        | Time:           | Received By:       | Date:   | Time:            | 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>    |             |      |             |                 |                     |
|                       |              |              |                 | <i>[Signature]</i> | 6/27/14 | 1530             | Standard <input checked="" type="checkbox"/>                     |             |      |             |                 |                     |

Comments:

Date Results Needed:

Origins Laboratory, Inc.

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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: Jose 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: \_\_\_\_\_ (Describe)

Cooler Number/Temperature: 121.3 °C / 1 °C / 1 °C / 1 °C

Thermometer ID: T002

| Requirement Description   | Yes | No | N/A | Comments (if any)                                    |
|---|-----|----|-----|--|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?   |     | 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 <sup>(1)</sup> ?   | X   |    |     |  |
| Was adequate sample volume provided <sup>(1)</sup> ?  | X   |    |     |  |
| Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?  |     | X  |     |  |
| Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?  | X   |    |     |  |
| Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?   | X   |    |     |  |
| Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?   | X   |    |     |  |
| Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?   | 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 <sup>(1)</sup> ? (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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH) |     | X  |     | Samples will be analyzed within 7 Days of collection |
| Additional Comments (if any):   |     |    |     |  |

<sup>(1)</sup> 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.

[Signature]  
 Reviewed by (Project Manager)

7/1/14  
 Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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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 Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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.*

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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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.



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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 Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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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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 Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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.



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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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

Origins Laboratory, Inc.



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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

**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 | "    | " | "       | "          | "          |  |

|   |        |          |  |  |   |   |   |  |
|---|--------|----------|--|--|---|---|---|--|
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 95.8 % | 87.3-113 |  |  | " | " | " |  |
| <i>Surrogate: Toluene-d8</i>            | 100 %  | 90.9-108 |  |  | " | " | " |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | 105 %  | 88.6-111 |  |  | " | " | " |  |

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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 Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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.



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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

Origins Laboratory, Inc.



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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 | "    | " | "       | "          | "          |  |

|   |        |          |  |  |   |   |   |  |
|---|--------|----------|--|--|---|---|---|--|
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 96.2 % | 87.3-113 |  |  | " | " | " |  |
| <i>Surrogate: Toluene-d8</i>            | 101 %  | 90.9-108 |  |  | " | " | " |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | 103 %  | 88.6-111 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

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 |  |  | " | " | " |  |

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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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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 | "        |             |             |  |                 |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>61</i> |     | <i>"</i> | <i>62.5</i> | <i>97.2</i> |  | <i>87.3-113</i> |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | <i>63</i> |     | <i>"</i> | <i>62.5</i> | <i>101</i>  |  | <i>90.9-108</i> |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i> |     | <i>"</i> | <i>62.5</i> | <i>104</i>  |  | <i>88.6-111</i> |  |  |  |

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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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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 | "        |             |  |             |                 |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>60</i> |     | <i>"</i> | <i>62.5</i> |  | <i>96.5</i> | <i>87.3-113</i> |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | <i>63</i> |     | <i>"</i> | <i>62.5</i> |  | <i>101</i>  | <i>90.9-108</i> |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i> |     | <i>"</i> | <i>62.5</i> |  | <i>103</i>  | <i>88.6-111</i> |  |  |  |

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 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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        |  |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>55</i> |     | <i>"</i> | <i>62.5</i> | <i>88.1</i> | <i>87.3-113</i> |  |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | <i>63</i> |     | <i>"</i> | <i>62.5</i> | <i>100</i>  | <i>90.9-108</i> |  |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i> |     | <i>"</i> | <i>62.5</i> | <i>104</i>  | <i>88.6-111</i> |  |  |  |  |

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 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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        |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>56</i> |     | <i>"</i> | <i>62.5</i> |  | <i>89.2</i> | <i>87.3-113</i> |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | <i>62</i> |     | <i>"</i> | <i>62.5</i> |  | <i>99.9</i> | <i>90.9-108</i> |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i> |     | <i>"</i> | <i>62.5</i> |  | <i>104</i>  | <i>88.6-111</i> |  |  |  |

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 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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          |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>54</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>85.6</i> | <i>87.3-113</i> |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | <i>62</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>99.4</i> | <i>90.9-108</i> |  |  |  |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>104</i>  | <i>88.6-111</i> |  |  |  |

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 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

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          |  |  |             |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>53</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>85.2</i> | <i>87.3-113</i> |  |  | <i>S-04</i> |
| <i>Surrogate: Toluene-d8</i>            | <i>63</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>101</i>  | <i>90.9-108</i> |  |  |             |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>64</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>102</i>  | <i>88.6-111</i> |  |  |             |

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

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 |             |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>53</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>85.3</i> | <i>87.3-113</i> |      |    | <i>S-04</i> |
| <i>Surrogate: Toluene-d8</i>            | <i>62</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>98.7</i> | <i>90.9-108</i> |      |    |             |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>65</i>          |     | <i>"</i> | <i>62.5</i>                               |    | <i>104</i>  | <i>88.6-111</i> |      |    |             |

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

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 |             |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>53</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>85.4</i> | <i>87.3-113</i> |      |    | <i>S-04</i> |
| <i>Surrogate: Toluene-d8</i>            | <i>63</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>101</i>  | <i>90.9-108</i> |      |    |             |
| <i>Surrogate: 4-Bromofluorobenzene</i>  | <i>66</i>          |     | <i>"</i> | <i>62.5</i>                               |      | <i>105</i>  | <i>88.6-111</i> |      |    |             |

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Project: Noble - Chestnut G 22-6

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**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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