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2013 GWMR

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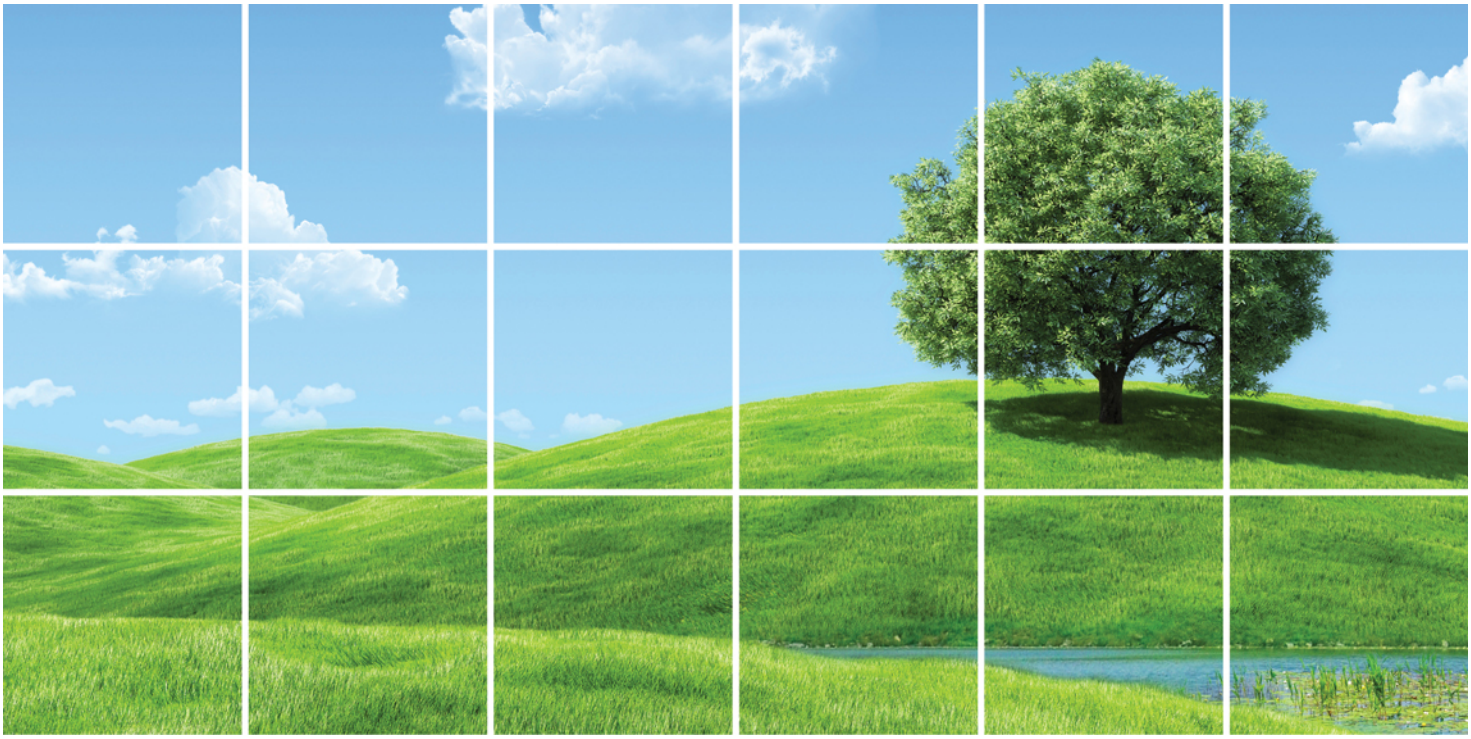

Final

SITE STATUS REPORT

HOLLY ENERGY PARTNERS
NORTH MONUMENT
6-INCH GATHERING LINE
NW 1/4 of the SW 1/4 of SECTION 30
TOWNSHIP 19-SOUTH RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Prepared for: William Green

Conestoga-Rovers & Associates
14998 West 6th Avenue, Suite 800
Golden, Colorado 80401

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Report Number:3

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1.0 INTRODUCTION

This status report is submitted on behalf of Holly Energy Partners (HEP) for the North Monument 6-inch Gathering Line Release (Site) located in Lea County, New Mexico (Figure 1). The release, which occurred in 2002, was a result of leaks from a pipeline owned by Holly Energy Partners. This report covers activities at the Site for the period from July 2012 to June 2013. This report contains information on the status of the crude oil found on groundwater in the area of the release, groundwater monitoring activities, installation of the crude oil recovery wells and abandonment of borehole wells, as described in the Stage 2 Abatement Plan (AP#34) that was submitted to the New Mexico Oil Conservation Division (NMOCD) in November 2012. The Stage 1 Abatement Plan was submitted to the NMOCD in April 2004.

1.1 SITE BACKGROUND

On October 5, 2002, a leak was suspected in a 6-inch crude oil gathering line as a result of a 2,100 barrels (bbls) inventory discrepancy. The line was relatively new, having been installed in 2000, and the leak may have been a result of acidized crude oil in the line. The line was exposed in the area of the leak and a 600-foot section of the damaged pipe was removed. Between five and seven leaks were found in this section of pipe in the area mainly located east of Maddox Road. The corroded section was replaced with new pipe and relocated approximately 150 feet to the south of the leak area so as to not interfere with remedial efforts. Petroleum-stained soil was removed from the area encompassing approximately 300 feet by 700 feet to approximately 15 feet deep along the line.

1.2 SITE SETTING

The Site is located approximately 2 miles northwest of Monument, New Mexico on State of New Mexico land, in the NW ¼ of the SW ¼ of Section 30, Township 19 South, Range 37 East (N 32° 37′ 50.2″, W 103° 17′ 52.8″). The topography at the Site is relatively flat and the average elevation is at 3,637 feet mean sea level (Figure 1). The Site is located on the HEP pipeline Right-of Way, approximately 0.5 miles north of NM 322 (County Road 42) and adjacent to Maddox Road (County Road 41). The surrounding land contains oil and gas production well pads and open range land.

1.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Based on the available site information, in October 2002, approximately 2,100 bbls of crude oil were released from a 6-inch crude oil pipeline to the subsurface, impacting an area encompassing approximately 700 feet by 300 feet oriented in the direction of the

pipeline (east-west) on the west and east sides of Maddox Road (Figure 2). Since 2002, seven groundwater monitor wells and 164 temporary borehole wells have been used to characterize the subsurface soil and groundwater and to recover the released crude oil at the Site. Of the 164 borehole wells, 102 were completed as temporary borehole wells. Approximately 1,079 bbls of crude oil were recovered prior to March 2004 and records indicate approximately 100 barrels have been recovered from the borehole wells from 2004 to 2011 using manually-controlled pumps. Product recovery from these wells was discontinued in 2011.

Hydrocarbon impacts at the Site are limited to soil and groundwater in the area of the leaks. The majority of the petroleum-stained soil, that was located on the east side of Maddox Road and in an area adjacent to the north side of the pipeline, was excavated in 2004 to a depth of approximately 15 feet; however, hydrocarbon saturated soils were observed below the bottom of the excavation in the impacted area. For safety reasons, the excavation was backfilled at the time. Due to the presence of monitoring and borehole wells, only a limited amount of soil was removed from the south side of the pipeline. Soil borings located within close proximity to the leak area did detect hydrocarbons above the NMOCD recommended remediation action levels.

Of the five original monitor wells that were installed following the release, two of the monitor wells (MW-2 and MW-4) were abandoned in 2002 after free product was detected in these wells. Two additional monitor wells (MW-6 and MW-7) were installed in 2008, bringing the total number of monitor wells to five. Initial results indicated monitor wells MW-3 and MW-5 had benzene detections above the NMWQCC standard. A monitor well (MW-1) located approximately 150 feet to the northwest from the release, and in a up-gradient direction from the release, did not have soil staining or detection of hydrocarbons in the soil or groundwater, and is believed to represent "background" un-impacted conditions.

1.4 SITE CONCEPTUAL MODEL

Groundwater at the Site is found at approximately 17 to 25 feet-below ground surface (ft-bgs) and the groundwater flow direction is towards the east. In December 2002 the wells located within close proximity to the release contained crude oil with a maximum measured thickness of 3.37 feet (MW-2). Generally, the majority of the crude oil from the release has been measured on the east side of Maddox Road with a maximum thickness that has increased from 1.7 feet in December 2011 to 2.40 feet in June 2013. Crude oil has also been measured in close proximity to Maddox Road with a maximum thickness of 0.4 feet in December 2011 to 3.00 in June 2013.

The dissolved phase hydrocarbon concentrations in groundwater have been below the New Mexico Water Quality Control Commission (NMWQCC) standards for benzene, toluene, ethylbenzene and total xylenes (BTEX) since 2010 in the down-gradient direction from the release. Dissolved phase hydrocarbons were detected in low concentrations (below NMWQCC standards) in four of the five monitor wells located outside the leak area from 2003 to 2011. The impacts to groundwater appear to be limited to the immediate area of the leaks.

The Site is located on New Mexico State land within the pipeline Right-of-Way for the 6-inch gathering line associated with area oil production. The primary chemicals of concern are hydrocarbon constituents that originated from the crude oil. The Site is located in an area of multiple crude oil gathering lines and is about two miles east of Monument, New Mexico. The closest residences are approximately 0.8 miles southeast from the Site. A water well search was conducted to identify wells within a one mile radius of the Site. A windmill well is located approximately 1,500 feet to the east of the Site. This well was sampled for hydrocarbons following the discovery of the release and was found to be un-impacted.

There appears to be no immediate threat to the environment or to drinking water wells located in the area, caused by the release and any remaining impacts. The crude oil has a very low mobility and does not readily desorb nor dissolve and therefore, the crude oil impacts have remained in the immediate area of the release. The crude oil first measured at the Site in 2002 has not migrated from the area, suggesting that soil impacts have been mitigated and supporting the conclusion that the released crude oil has a low mobility rate and is not readily dissolved in groundwater.

The NMOCD recommended remediation action levels for soil are dependent upon site specific ranking criteria outlined in the Guidelines for Remediation of Leaks, Spill, and Releases (August 1993). These criteria are:

- depth to groundwater;
- proximity of the wellhead to water sources or private domestic wells; and
- distance to surface water bodies to include but not limited to perennial rivers, streams, creeks, irrigation canals and ditches, lakes, ponds and playas.

The depth to groundwater at the Site is approximately 23 ft-bgs. The closest water well (windmill well) is approximately 1,500 feet east of the Site. There are no surface-water bodies within 1,000 feet of the Site. Due to the depth of groundwater (23 ft-bgs), it is unlikely that any perennial stream would exist at any time within 1,000 feet of the Site.

At the Site, groundwater is less than 50 feet, the closest domestic well is greater than 1,000 feet from the release and the distance to a surface-water body is greater than 1,000 feet from the Site. Based on these ranking criteria and the Guidelines for Remediation of Leaks, Spills and Releases (August 1993), the ranking score for groundwater is 20, for the domestic well it is 0 and for the surface-water body it is 0, for a total ranking score of 20. With the total ranking score of over 19, the NMOCD recommended remediation action levels for hydrocarbons in soil for the Site are:

- 10 milligrams per kilogram (mg/kg) for benzene;
- 50 mg/kg for total BTEX;
- 100 mg/kg for Total Petroleum Hydrocarbons (TPH); and

The NMWQCC standards for hydrocarbons in groundwater are as follows:

- 0.01 milligrams per liter (mg/L) for benzene;
- 0.75 mg/L for toluene;
- 0.75 mg/L for ethylbenzene; and
- 0.62 mg/L for total xylenes.

2.0 SITE ACTIVITIES

Fluid levels were measured in all monitor and borehole wells and on-site well evaluations were conducted in July 2012. Groundwater monitoring was conducted at the Site in December 2012 and June 2013. The groundwater monitoring included obtaining groundwater samples for laboratory analysis for BTEX and measuring fluid levels in all monitor wells and borehole wells. In February 2013, 29 borehole wells were abandoned on both sides of Maddox Road and 14 four-inch recovery wells were installed for use in the recovery of the crude oil.

2.1 WELL EVALUATIONS AND ABANDONMENTS

An initial evaluation of all of the monitor and borehole wells located at the Site was conducted in July 2012. The evaluation included the validation of all well locations as shown in the Figure 2, measurement of the fluid levels and the total well depths and a search of the available records for well and borehole logs. Appendix A contains the July 2012 well evaluation information.

The December 2011 Site map (Figure 2) shows 147 borehole wells and five monitor wells. The July 2012 field evaluation found 98 borehole wells and five monitor wells. The review of the available well logs, found well logs for the seven monitor wells that were installed on the Site and no record of any well logs for the borehole wells. The field evaluation showed total well depths ranging from 17.75 feet below measuring point (ft-bmp) to 39.36 ft-bmp. The saturated thickness in the wells varied from dry (WBH-14) to 16.75 feet (MW-1). Crude oil was measured in 77 borehole wells with a maximum product thickness of 1.64 feet (BH-64) (Figure 3). No crude oil was measured in any of the monitor wells.

Wells slated for abandonment were based on whether the well was dry or lacked saturated thickness of greater than 4 feet, had incomplete or no records of completion, lack of crude oil, integrity of the surface seal and location of the well. The evaluation of the temporary borehole wells indicated that many of the wells were outside of the impacted area and would not be needed for the Stage 2 abatement activities. Based on these criteria, 29 wells were slated for abandonment. In February 2013, five 4-inch borehole wells were abandoned and 24 two-inch borehole wells were abandoned (Appendix B).

Well abandonments were completed per State guidelines (NMAC19.27.4.30). To plug each well, the entire well casing and screen was filled from the bottom of the well upwards to ground surface with a tremie pipe using neat cement slurry consisting of

bentonite based cement plugging material approved by the State Engineer. The superficial PVC blank was removed from the well. The slurry was then allowed to settle and the wells were topped off with the same neat cement slurry.

2.2 GROUNDWATER MONITORING PROCEDURES AND RESULTS

Groundwater monitoring was conducted at the Site in December 2012 and June 2013. The monitoring included fluid level measurements of all monitor wells and borehole wells and also the new recovery wells during the June 2013 event. Groundwater samples were collected from all five monitor wells during both sampling events.

Crude oil was not measured in any of the monitor wells during the December 2012 monitor event, but was measured in most borehole wells. Product thickness varied from 0.01 feet to 2.16 (BH-64) feet with the majority of the crude oil found in the central portion of the Site, east of Maddox Road. The crude oil thicknesses for December 2012 are shown in Figure 4 and detailed in Appendix C.

Water levels measured in December 2012 were similar to the water levels that were measured in July 2012. For the December monitoring period, the depth to groundwater across the Site varied from 15.0 ft-bgs (MW-6) to 21.5 ft-bgs (MW-5). The groundwater flow in December was towards the east and the groundwater gradient is relatively flat with a gradient of 0.006 feet/foot (Figure 5).

During the June 2013 monitoring period crude oil was again not measured in any of the five monitor wells but was measured in most borehole wells with product thickness varying from 0.1 feet to 3.00 feet (BH-91) with the majority of the crude oil again found in the central portion of the Site, east of Maddox Road. The crude oil thicknesses for June 2013 are shown in Figure 6 and detailed in Appendix D

For the June 2013 monitoring period, the depth to groundwater across the Site varied from 17.0 ft-bmp (HB-45) to 26.36 ft-bmp (WBH-11). As in the December monitoring period the groundwater flow in June 2013 was towards the east and the groundwater gradient was 0.0125 feet/foot (Figure 7).

Prior to purging of the wells and obtaining groundwater samples, fluid levels were measured in all monitor wells using a water level indicator. During both sampling events, the monitor wells were purged at a rate of 160 ml/min and groundwater samples were collected using the low flow purging technique following stabilization of the field parameters (Appendix E). The meters used for the field parameters were calibrated prior to use. Field parameters obtained during purging included temperature, specific conductance, pH, dissolved oxygen and oxidation reduction

potential (ORP) and the final readings for both sampling events are summarized in Appendix F.

All five monitor wells (MW-1, MW-2, MW-5, MW-6 and MW-7) were sampled in December 2012 and June 2013 for BTEX analysis by Method 8260. Groundwater samples were immediately placed into the appropriate laboratory provided containers following field parameter measurements and placed in an ice-chilled cooler for transport to the DHL laboratory under chain-of-custody procedures. The laboratory reports for both sampling events are contained in Appendix G.

The December 2012 hydrocarbon concentrations for each monitor well are shown in Figure 5 and summarized in Appendix F. The concentrations of dissolved BTEX in groundwater during December 2012 at the Site were generally similar to concentrations detected in December 2011 (Appendix F). There were no detections of any of the BTEX constituents above the NMWQCC standards found at the Site. The analytical results are summarized as follows:

- For the wells monitored in December, none of the BTEX constituents were detected above the lower laboratory reporting limits in monitor wells MW-1, MW-3, MW-5 and MW-7; and
- Only benzene (2.56 μg/L) and ethylbenzene (84.4 μg/L) were detected above the lower laboratory reporting limit at MW-6.

The hydrocarbon concentrations for each monitor well sampled in June 2013 are shown in Figure 7 and summarized in Appendix F. The concentrations of dissolved BTEX in groundwater during June 2013 at the Site were generally similar to concentrations detected in December 2012 (Appendix F). There were no detections of any of the BTEX constituents above the NMWQCC standards, or above the laboratory reporting limit, in the 5 monitor wells sampled at the Site during the June 2013 sampling event.

2.3 REMEDIATION WELL INSTALLATION

The final recovery well locations were based on historical crude oil thickness data, utility clearances and were finalized by the Site geologist. Prior to drilling, private and public utilities were cleared. The NMOCD was notified approximately one week prior to drilling activities, as required by 19.15.30.14.B NMAC. Well permits were obtained from the New Mexico State Engineer and site access and permission to install the recovery wells was obtained from State of New Mexico Land Office, Lovington, NM.

The wells were installed according to New Mexico Office of the State Engineer rules (19.27.4 NMAC) using an air rotary drill rig. The boring diameter was $7^{7/8}$ inches and the total depths of the wells were approximately 10 feet below the top of the fluid, as

observed during the drilling by the site geologist. The well borings were logged by the on-site geologist based on the cuttings and spilt spoon samples. Each boring was logged for the unified soil classification, moisture content, Munsell color, staining, and vapor content.

Fourteen wells were installed for use in the removal of the crude oil impacts on groundwater at the Site (Figure 8). In the unsaturated zone at the Site, backfill material was encountered consisting of silt and sand overlying caliche with sand and silty sand to the top of groundwater. In the saturated zone at the Site, caliche, sand and gravel were encountered in boreholes. Odor and staining were observed from 8 ft-bgs to the top of groundwater in Wells MRW-6 and MRW-8 and from 14 ft-bgs to top of groundwater in all other wells except MRW-13, which showed no indications of odor, vapors or staining. Well MRW-4 could not be logged due to the collapsing of the borehole while drilling. Well construction details and well bore logs are contained in Appendix H.

The recovery wells were constructed with 4-inch diameter schedule 40 PVC casing and 20 feet of 20-slot (0.020 inch) PVC screen with approximately 10 feet of the screen above the observed fluid level and 10 feet below the observed fluid level with a 5-foot blank casing below the screen interval as shown in Figure 9. A 10/20 sand filter pack was placed in the borings from the bottom of the boring to approximately 2 feet above the well screen. A hydrated bentonite seal was placed from the top of the sand pack to approximately two feet above the sand pack. A grout seal was placed from the top of the bentonite seal to approximately 3 ft-bgs. A 3-foot manhole cover was placed on each well and cemented in place. The selected screen interval was used to allow for soil vapor extraction if needed, the fluctuation in fluid levels and for the collection of fluids from any future surfactant injection, if needed. The 5-foot blank below the screen interval will be used to allow for the collection of any of the fine-grained sediment that was observed in the saturated zone during drilling. In addition, a 1-inch piezometer was installed alongside the 4-inch well and constructed in the same manner as the 4-inch well from, the bottom of the well screen to the surface (Figure 9). These piezometers will be used to measure fluid levels so that the oil recovery pumps will not have to be removed for fluid level measurements.

Product thickness was not measured in any of these new wells immediately following installation; therefore, each well was surged with a surge block assembly to develop the well. These wells were again checked during the June 2013 monitoring event and product was measured in nine of the 14 wells with thicknesses from 0.01 feet to 3.00 feet (MRW-5).

All drilling and well development equipment was cleaned prior to initiation of drilling activities and in between all borings using a high pressure washer.

2.4 SUBSURFACE SOIL SAMPLING PROCEDURES AND RESULTS

During drilling for the well installations, soil samples were collected continuously from ground surface to the top of groundwater or to approximately 22 ft-bgs, using a two-foot split-spoon sampler, or a core sampler when the split-spoon hit refusal. If the core sampler hit refusal, the boring was logged using cuttings. Headspace samples were collected in re-sealable plastic bags every two feet and measured approximately 30 minutes after collection for volatiles using a photo-ionization detector (PID). An analytical sample was collected and analyzed for BTEX compounds by Method 8260, and TPH-GRO/DRO by Method 8015, based to the highest detected headspace reading in each boring.

The data shows vadose zone soil impacts based on analytical soil data and head space data above NMOCD recommended remediation action levels in two separate areas at the Site. The soil data is summarized in Appendix I and shown on Figure 8. In the central portion of the Site (Wells MRW-1, MRW-2, MRW-3, MRW-4, MRW-5, MRW-6, MRW-7, MRW-8, MRW-9 and MRW-10), there appears to be impacts based on head space readings from above the capillary zone to within the capillary zone with impacts ranging from 3 feet thick (Well MRW-11) to 14 feet thick (Well MRW-6), covering an approximate area of 185 feet by 100 feet. In the area near the road, (Wells MRW-11, MRW-12, MRW-13 and MRW-14) there appears to be impacts covering an area approximately 100 feet by 30 feet with an approximate thickness of four feet (Well MRW-14) within the capillary zone.

Soil analytical results have been compared to the NMOCD recommended remediation actions levels as described above in Section 1.4. The subsurface soil results indicated that the subsurface soil impacts are below eight ft-bgs at Well MRWW-8 and within the capillary zone (16 to 22 ft-bgs) in the other wells except MRW-13, were no impacts were detected. Well MRW-4 could not be logged due to the collapsing of the borehole while drilling. Laboratory reports for the soil data for the February 2013 recovery well installation are contained in Appendix J.

The subsurface soil results are summarized as follows:

- Total BTEX was detected above the NMOCD recommended action level of 50 mg/Kg in the sample from MRW-07 (MRW7@22-24);
- TPH was detected above the recommended remediation action level of 100 mg/kg below 14 ft-bgs at all well locations, except MRW-13 (MRW-4 was not sampled);

- Head space readings above the recommended remediation action level of 100 ppm were found below eight ft-bgs at well locations MRW-6 and MRW-8; and
- Head space readings above the recommended remediation action level of 100 ppm were found below 14 ft-bgs at all other locations except MRW-13 (MRW-4 was not monitored).

2.5 QA/QC RESULTS

Quality Assurance/Quality Control (QA/QC) measures were followed according to the abatement plan. The field PID was calibrated daily using 100 ppm isobutylene. QA/QC samples for groundwater sampling and soil sampling included trip blanks, equipment blank and duplicate groundwater samples. The results of the QA/QC samples for groundwater are summarized in Table 1 and the results for the QA/QC sample for soil is summarized in Table 2. Each cooler that was shipped to the laboratory contained a temperature blank, laboratory prepared groundwater trip blank or laboratory prepared soil trip blank. The groundwater duplicate samples and all soil and groundwater blanks were analyzed for BTEX by Method 8260. The duplicate groundwater sample showed no variation in the results. There were no detections above the lower laboratory reporting limit for BTEX in any of the trip blanks.

2.6 INVESTIGATIVE DERIVED WASTE

The soil cuttings from the installation of the new remediation wells were separated on-site into impacted and non-impacted soil, based on visual observation and head space analysis. Non-impacted soil was distributed in low lying areas of the site. The impacted cuttings were collected and containerized in a plastic lined roll-off container. The impacted cuttings were sampled for BTEX, TPH and RCRA metals analyses at the conclusion of drilling activities. The results indicated the waste is above state standards for TPH; the waste was handled and disposed of properly at the Sundance disposal facility. The results of the investigative derived waste are summarized in Table 3.

3.0 CONCLUSION AND RECOMMENDATIONS

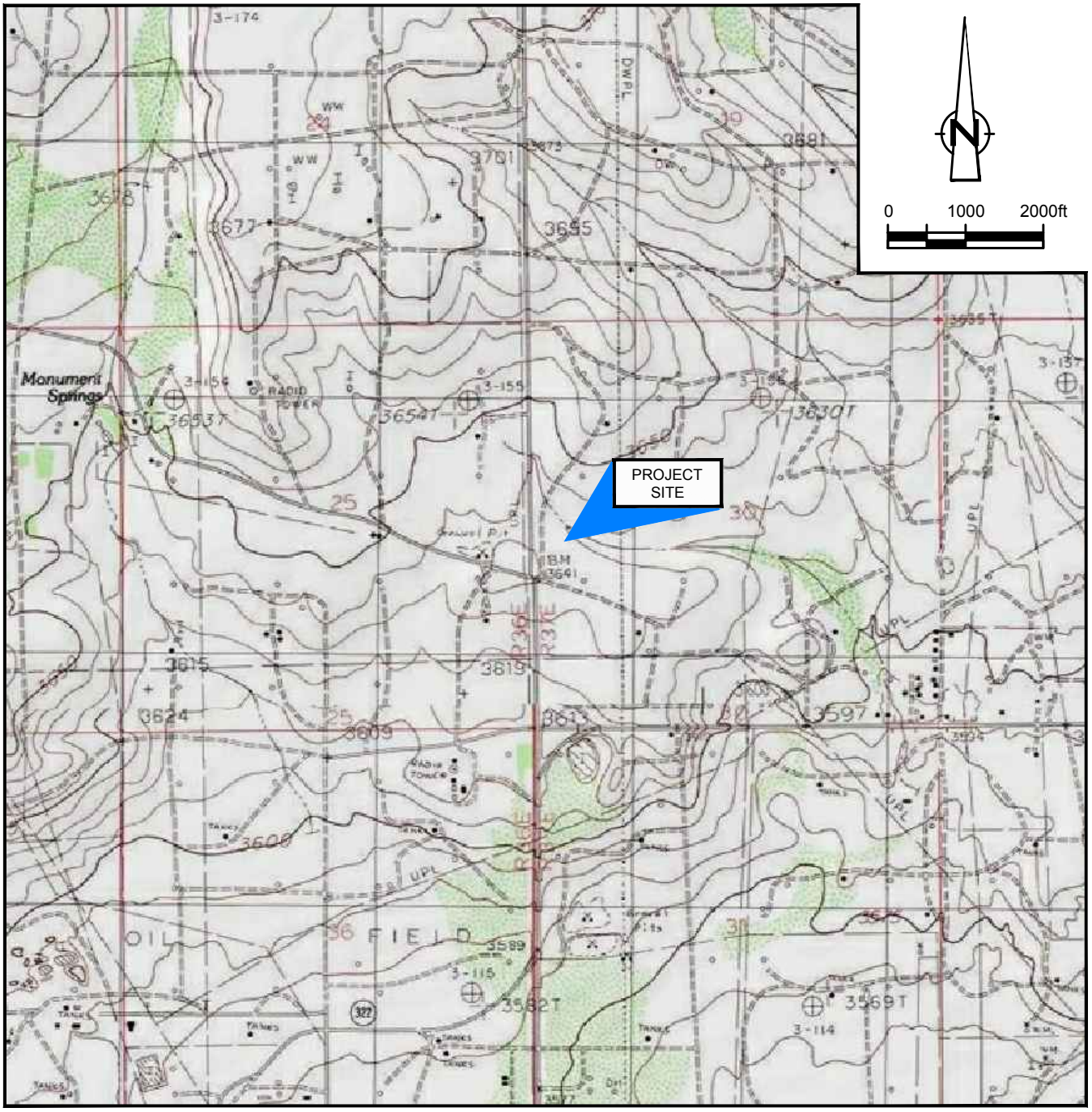
Groundwater hydrocarbon concentrations have remained stable since 2010. The measured thicknesses of the crude oil have increased as much as two feet since the suspension of the crude oil recovery activities in 2011.

CRA will continue to monitor groundwater at the Site on a semi-annual basis. The next groundwater sampling event is scheduled to occur in December 2013. Groundwater samples will be collected from all site monitor wells and analyzed for BTEX.

The remedial strategy for site closure is based on the current NMOCD requirements. To close the Site with no further action, the crude oil would first have to be removed separately from groundwater (19.15.17.13 NMAC). The proposed remedial technology for the Site uses a crude oil only skimming system that does not depress the groundwater table to remove the crude oil. This system is designed to shut down automatically when water is encountered in the pump and can be restarted remotely without visiting the Site. This system is scheduled to be installed and in operation by September 2013.

Once the phase-separated hydrocarbons (crude oil) have been removed to a *de minimis* thickness, remedial actions would then focus on the low-level dissolved phase concentrations. Based on existing conditions, the Site closure strategy to meet State standards would be based on natural attenuation of contaminant parameters and monitoring of the dissolved phase hydrocarbons.

FIGURES

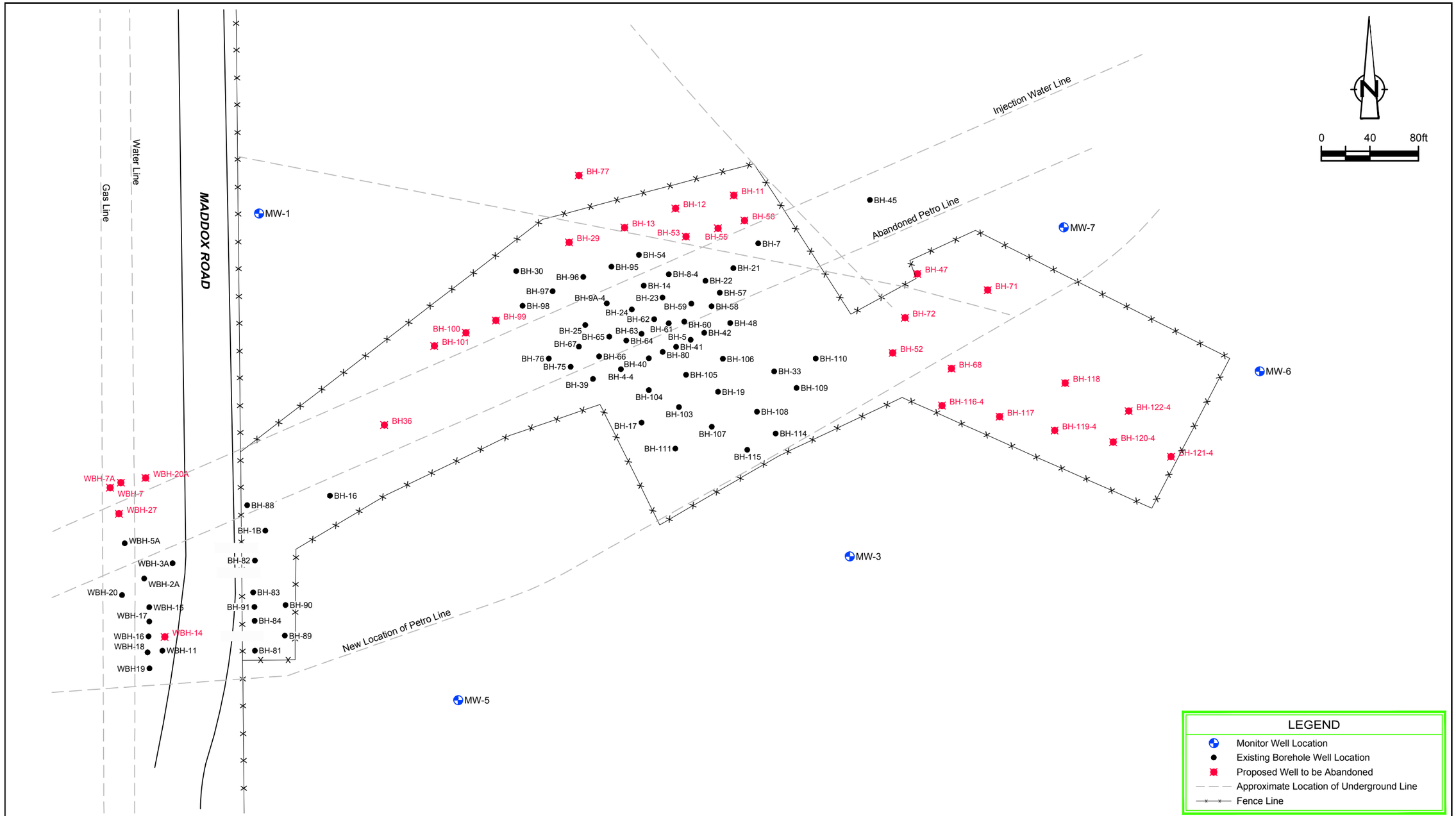


SOURCE: USGS 7.5 MINUTE QUAD
"MONUMENT NORTH, NEW MEXICO"

LAT/LONG: 32.6306° NORTH, 103.2980° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

figure 1

SITE LOCATION MAP
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners



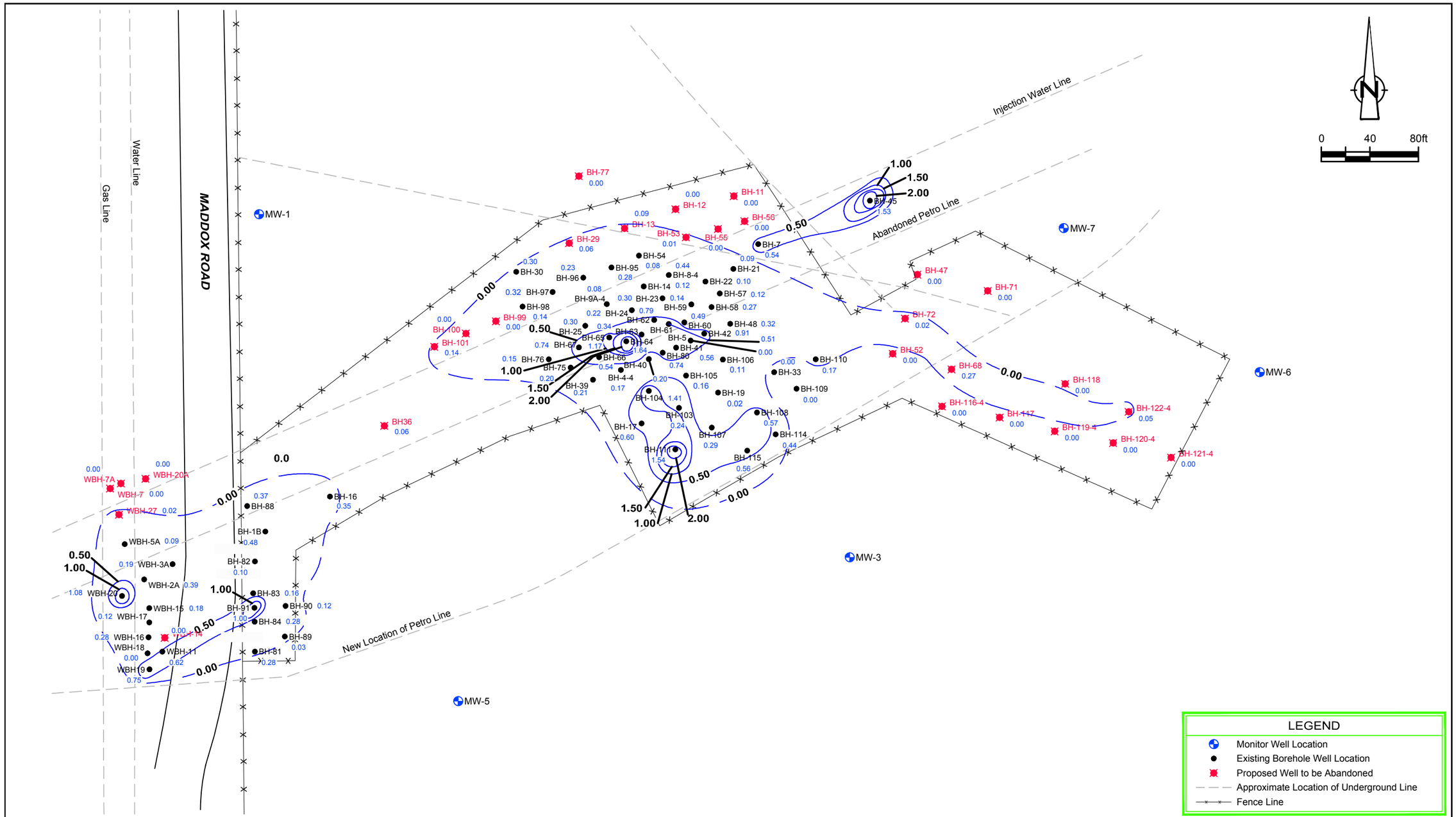
LEGEND

- Monitor Well Location
- Existing Borehole Well Location
- Proposed Well to be Abandoned
- Approximate Location of Underground Line
- Fence Line

figure 2

SITE MAP (DECEMBER 2011)
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners

078802-01(000)GN-DL001 MAY 9/2013



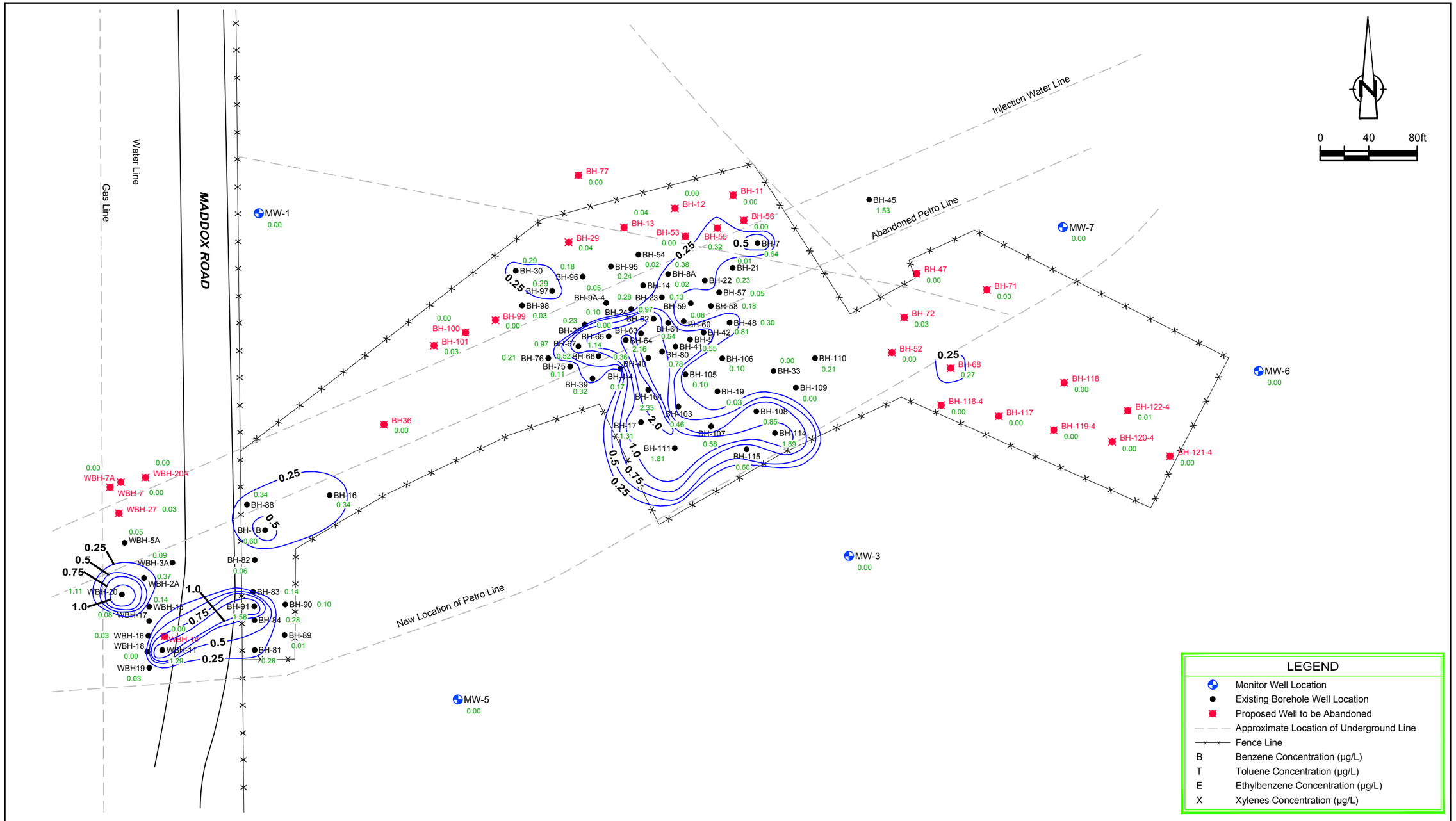
LEGEND

- Monitor Well Location
- Existing Borehole Well Location
- Proposed Well to be Abandoned
- Approximate Location of Underground Line
- Fence Line

figure 3

PRODUCT THICKNESS - JULY 2012
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners

078802-01(000)GN-DL001 MAY 3/2013



LEGEND

- Monitor Well Location
- Existing Borehole Well Location
- Proposed Well to be Abandoned
- Approximate Location of Underground Line
- Fence Line
- B — Benzene Concentration (µg/L)
- T — Toluene Concentration (µg/L)
- E — Ethylbenzene Concentration (µg/L)
- X — Xylenes Concentration (µg/L)

figure 4

PRODUCT THICKNESS - DECEMBER 2012
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners

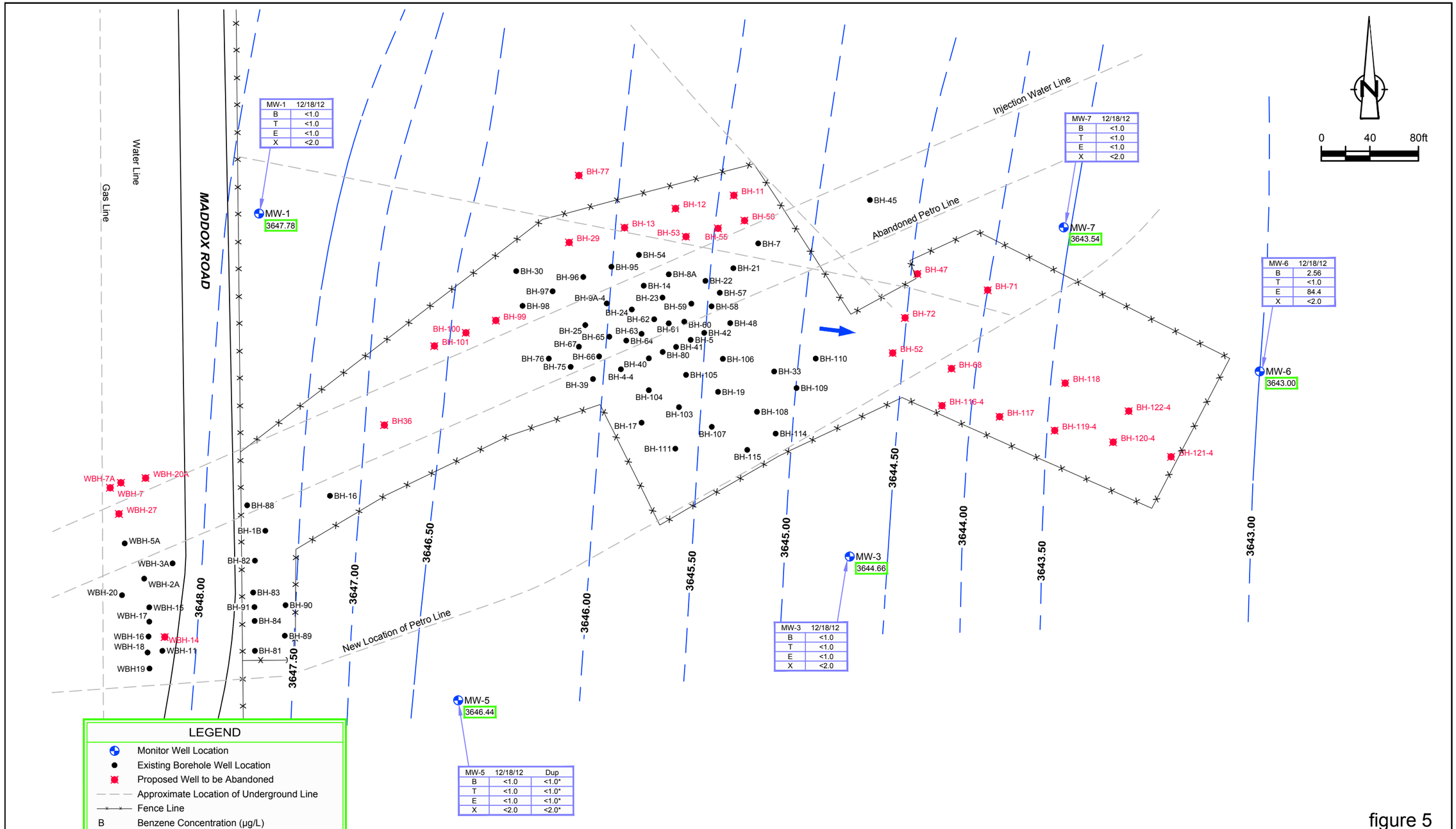
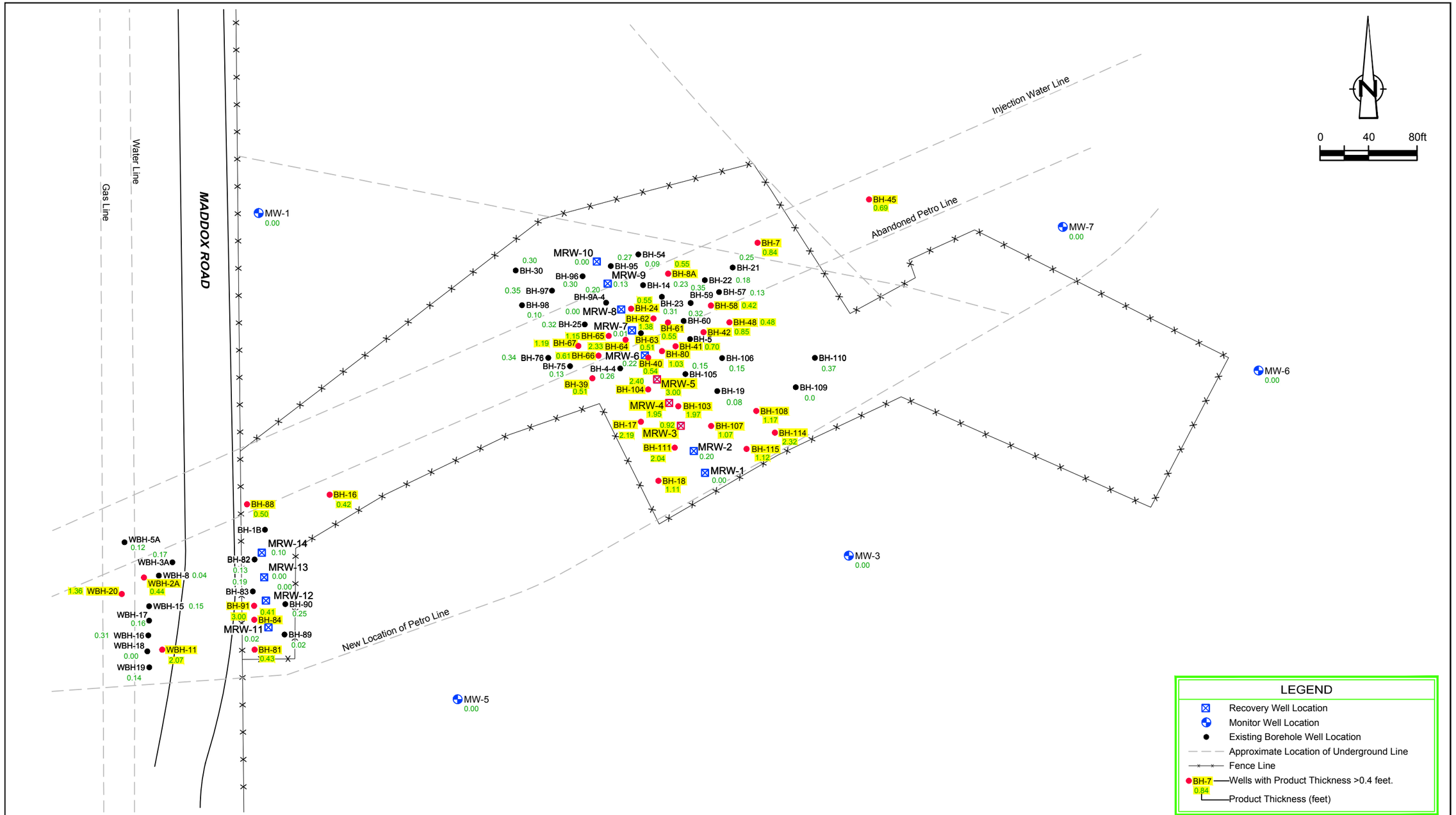


figure 5

GROUNDWATER POTENTIOMETRIC AND GROUNDWATER ANALYTICAL MAP -DECEMBER 2012
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners



LEGEND

- Recovery Well Location
- Monitor Well Location
- Existing Borehole Well Location
- Approximate Location of Underground Line
- Fence Line
- BH-7 0.84 — Wells with Product Thickness >0.4 feet. / Product Thickness (feet)

figure 6

PRODUCT THICKNESS - JUNE 2013
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners

078802-00(000)GN-DL001 AUG 22/2013

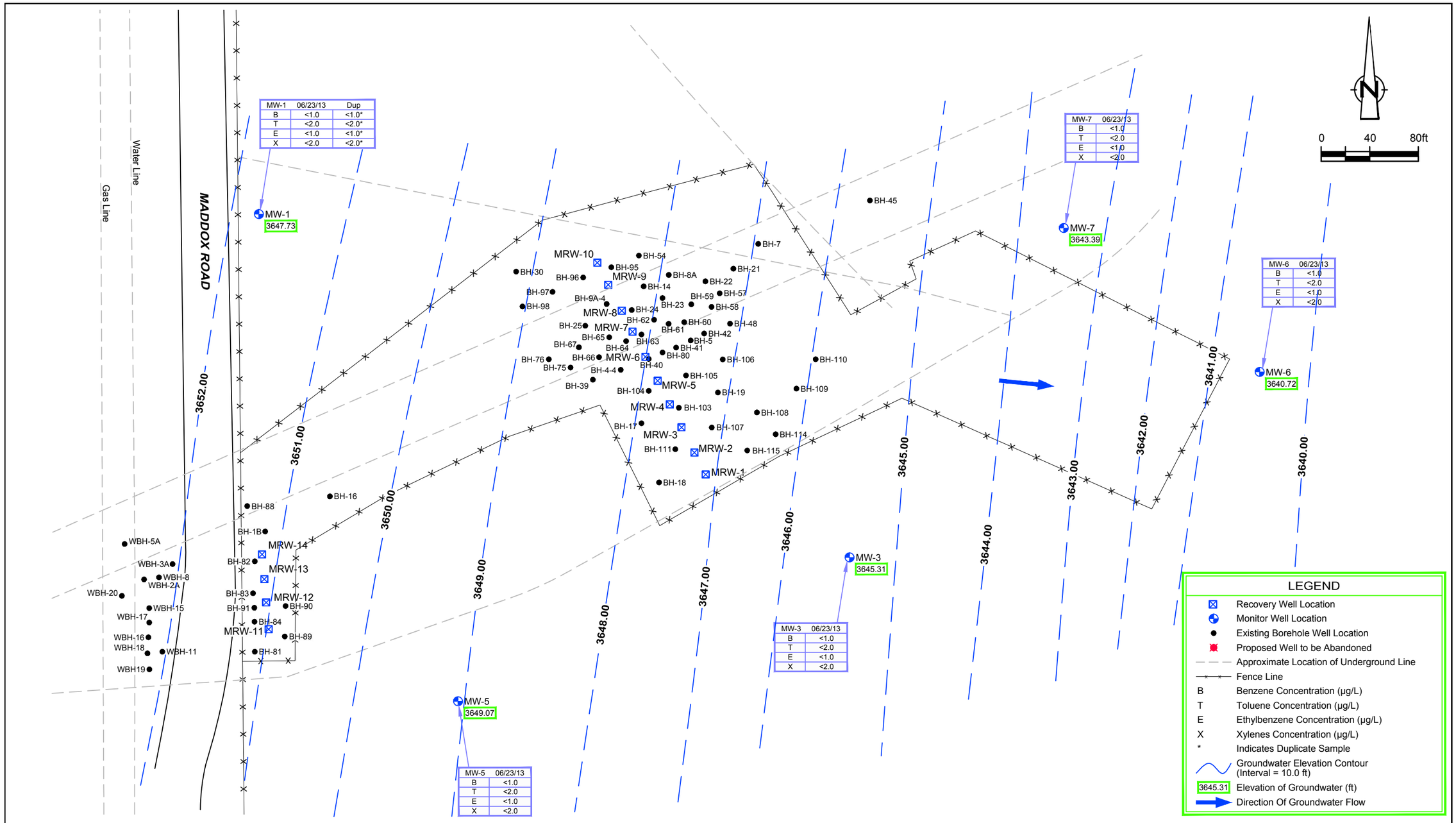
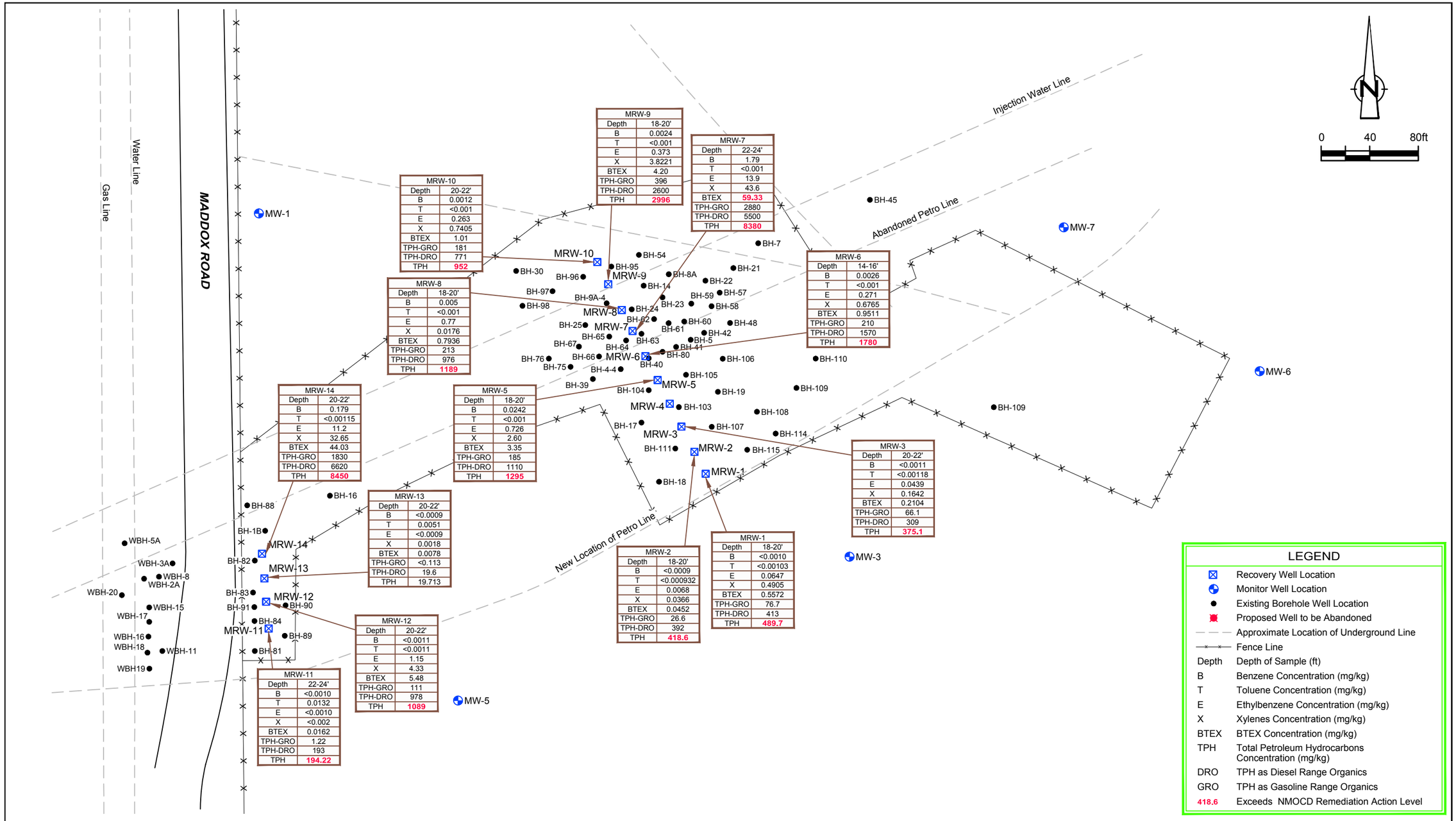


figure 7

GROUNDWATER POTENTIOMETRIC SURFACE AND GROUNDWATER ANALYICAL RESULTS MAP - JUNE 2013
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners



MRW-10	
Depth	20-22'
B	0.0012
T	<0.001
E	0.263
X	0.7405
BTEX	1.01
TPH-GRO	181
TPH-DRO	771
TPH	952

MRW-9	
Depth	18-20'
B	0.0024
T	<0.001
E	0.373
X	3.8221
BTEX	4.20
TPH-GRO	396
TPH-DRO	2600
TPH	2996

MRW-7	
Depth	22-24'
B	1.79
T	<0.001
E	13.9
X	43.6
BTEX	59.33
TPH-GRO	2880
TPH-DRO	5500
TPH	8380

MRW-6	
Depth	14-16'
B	0.0026
T	<0.001
E	0.271
X	0.6765
BTEX	0.9511
TPH-GRO	210
TPH-DRO	1570
TPH	1780

MRW-8	
Depth	18-20'
B	0.005
T	<0.001
E	0.77
X	0.0176
BTEX	0.7936
TPH-GRO	213
TPH-DRO	976
TPH	1189

MRW-14	
Depth	20-22'
B	0.179
T	<0.00115
E	11.2
X	32.65
BTEX	44.03
TPH-GRO	1830
TPH-DRO	6620
TPH	8450

MRW-5	
Depth	18-20'
B	0.0242
T	<0.001
E	0.726
X	2.60
BTEX	3.35
TPH-GRO	185
TPH-DRO	1110
TPH	1295

MRW-13	
Depth	20-22'
B	<0.0009
T	0.0051
E	<0.0009
X	0.0018
BTEX	0.0078
TPH-GRO	<0.113
TPH-DRO	19.6
TPH	19.713

MRW-12	
Depth	20-22'
B	<0.0011
T	<0.0011
E	1.15
X	4.33
BTEX	5.48
TPH-GRO	111
TPH-DRO	978
TPH	1089

MRW-11	
Depth	22-24'
B	<0.0010
T	0.0132
E	<0.0010
X	<0.002
BTEX	0.0162
TPH-GRO	1.22
TPH-DRO	193
TPH	194.22

MRW-2	
Depth	18-20'
B	<0.0009
T	<0.000932
E	0.0068
X	0.0366
BTEX	0.0452
TPH-GRO	26.6
TPH-DRO	392
TPH	418.6

MRW-1	
Depth	18-20'
B	<0.0010
T	<0.00103
E	0.0647
X	0.4905
BTEX	0.5572
TPH-GRO	76.7
TPH-DRO	413
TPH	489.7

MRW-3	
Depth	20-22'
B	<0.0011
T	<0.00118
E	0.0439
X	0.1642
BTEX	0.2104
TPH-GRO	66.1
TPH-DRO	309
TPH	375.1

LEGEND

	Recovery Well Location
	Monitor Well Location
	Existing Borehole Well Location
	Proposed Well to be Abandoned
	Approximate Location of Underground Line
	Fence Line
Depth	Depth of Sample (ft)
B	Benzene Concentration (mg/kg)
T	Toluene Concentration (mg/kg)
E	Ethylbenzene Concentration (mg/kg)
X	Xylenes Concentration (mg/kg)
BTEX	BTEX Concentration (mg/kg)
TPH	Total Petroleum Hydrocarbons Concentration (mg/kg)
DRO	TPH as Diesel Range Organics
GRO	TPH as Gasoline Range Organics
418.6	Exceeds NMOCD Remediation Action Level

figure 8

SUBSURFACE SOIL ANALYTICAL RESULTS AND RECOVERY WELL LOCATIONS - FEBRUARY 2013
NORTH MONUMENT 6"
HOBBS, NEW MEXICO
Holly Energy Partners

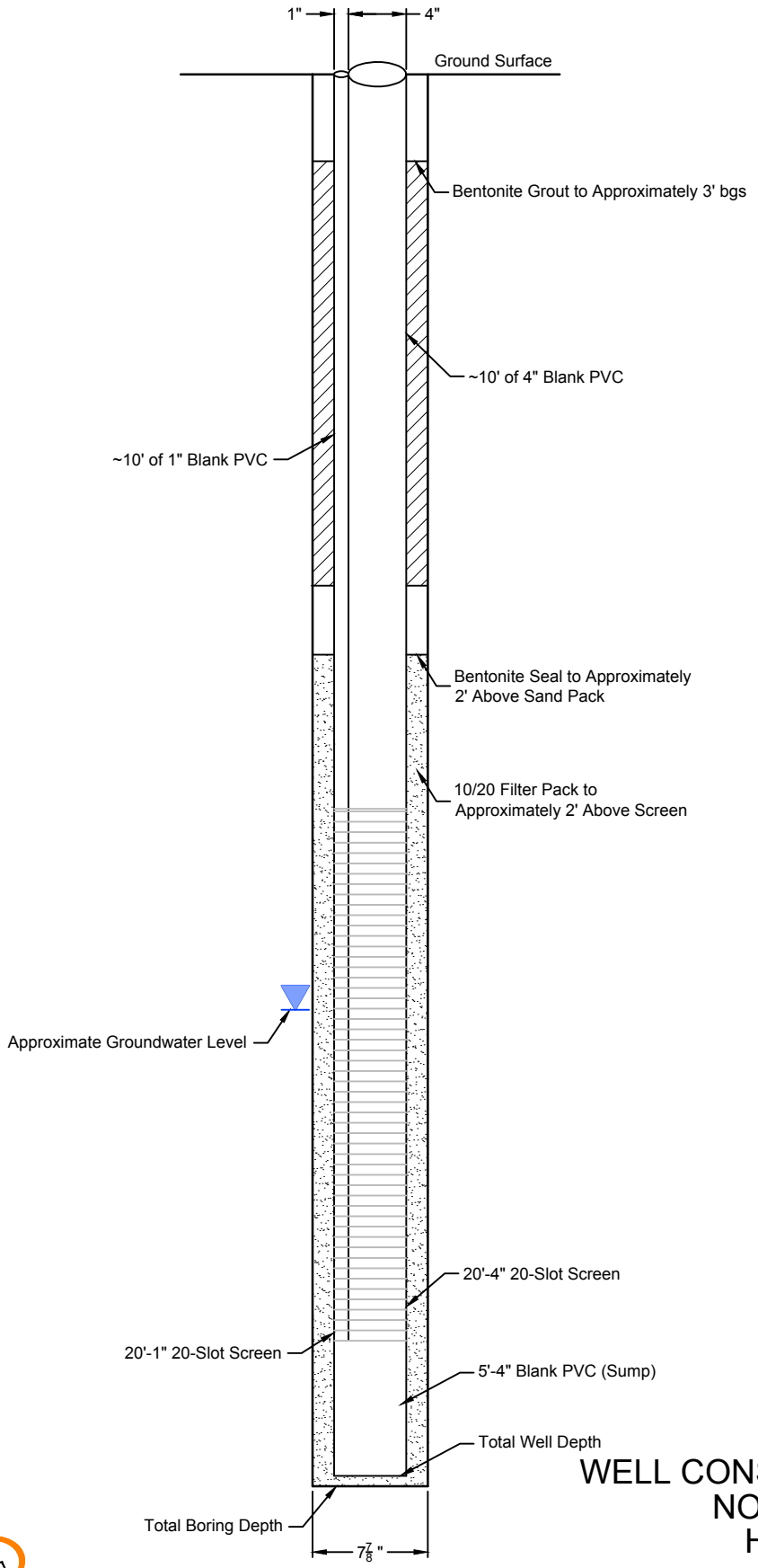


figure 9

WELL CONSTRUCTION DETAILS
NORTH MONUEMENT 6"
HOBBS, NEW MEXICO

Holly Energy Partners

TABLES

Table 1. **Summary of Groundwater QA/QC Results for Decmber 2012 and February 2013**

Well No.	Date Sampled	Laboratory Analytical Results				BTEX Sum	BTEX Difference
		Benzene	Toluene	Ethyl-benzene	Total Xylenes		
		(mg/L)	(mg/L)	(mg/L)	(mg/L)		
NMWQC Groundwater Standard		**10**	**750**	**750**	**620**		
MW-5	12/18/2012	<0.001	<0.002	<0.001	<0.002	0.000	
duplicate	12/18/2012	<0.001	<0.002	<0.001	<0.002	0.000	0.000
EQ Blank	12/18/2012	<0.001	<0.001	<0.001	<0.002		
Trip Blank	12/18/2012	<0.001	<0.001	<0.001	<0.002		
MW-1	6/23/2013	<0.001	<0.001	<0.001	<0.002	0.000	
duplicate	6/23/2013	<0.001	<0.001	<0.001	<0.002	0.000	0.000
Trip Blank	6/23/2013	<0.001	<0.001	<0.001	<0.002		

BOLD = Exceeds New Mexico Water Quality Commission (NMWQC) Standard

mg/L = milligrams per liter

< = Not detected above indicated level

BTEX = Benzene, Toluene, Ethylbenzene and Xylenes

BTEX analyzed by Method EPA 8260

EQ Blank = Equipment Blanl

Table 2 **Summary of QA/QC Results for Subsurface Soil**
Holly Energy - North Monument - Lea County, New Mexico

Sample ID	Date Sampled	Laboratory Analytical Results				
		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NMOCD Remediation Action Levels		**10**				**50**
Trip Blank	2/19/13	<0.001	<0.002	<0.001	<0.002	<0.002

NOTES:

NMOCD= New Mexico Oil Conservation Division

BTEX = Benzene, Toluene, Ethylbenzene & Total Xylenes

mg/L = milligrams per Liter

< = analyte not detected above method reporting limit

BTEX analyzed by EPA Method 8260B

Table 3 **Summary of Investigative Derived Waste Results for Soil**
Holly Energy - North Monument - Lea County, New Mexico

Sample ID	Date Sampled	Laboratory Analytical Results							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD Remediation Action Levels		**10**				**50**			**100**
NM-WCS-1	2/21/2013	< 0.00101	< 0.00101	0.0107	0.03473	0.1902	48.1	525	**573.1**

Sample ID	Date Sampled	Laboratory Analytical Results							
		Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
		0.39	**5,400**	**37**	**210**	**400**	**390**	**390**	**23**
NM-WCS-1	2/21/2013	**3.39**	187	0.154	10.1	4.23	0.828	< 0.111	< 0.0169

NOTES:

NMOCD= New Mexico Oil Conservation Division

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene & Total Xylenes

TPH-GRO = Total Petroleum Hydrocarbons- Gasoline Range Organics

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

BOLD (RED) - concentration greater than NMOCD Remediation Action Levels

< = analyte not detected above method reporting limit

BTEX analyzed by EPA Method 8260B

TPH-GRO analyzed by EPA Method 8260B

TPH-DRO analyzed by EPA Method 8015M

APPENDIX A

JULY 2012 WELL EVALUATIONS AND FLUID LEVELS

Appendix A - Monument Well Evaluations July 2012

Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	PID	Casing Dia (in)	DTP (ft-bmp)	DTW (ft-bmp)	Thickness (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	Well Marked Y/N	Surface Condition
WBH-7	7/26/2012	0	2		25.40		26.15	0.75	2.07	Y	No concrete collar
WBH-7A	7/26/2012	0.03	2		24.78		33.25	8.47	1.21	Y	No concrete collar
WBH-20	7/26/2012	1.02	2	23.71	24.79	1.08	30.31	6.60	1.00	Y	No concrete collar
WBH-27	7/26/2012	8.02	2	24.72	24.74	0.02	33.68	8.96	1.45	Y	No concrete collar
WBH-5A	7/26/2012	0	2	24.35	24.44	0.09	30.25	5.90	1.70	Y	cracked pipe
WBH-3A	7/26/2012	5.09	2	26.36	26.55	0.19	31.55	5.19	2.16	Y	No concrete collar
WBH-2A	7/26/2012	0.01	2	24.50	24.89	0.39	30.34	5.84	1.30	Y	No concrete collar
WBH-8	7/26/2012	0.07	2	24.99	25.05	0.06	30.32	5.33	1.71	Y	cracked pipe
WBH-20A	7/26/2012	0.05	2		24.65		32.30	7.65	1.66	Y	No concrete collar
WBH-15	7/26/2012	109	2	24.87	25.05	0.18	30.23	5.36	1.37	Y	No concrete collar
WBH-17	7/26/2012	83	2	24.33	24.45	0.12	30.22	5.89	1.01	Y	No concrete collar
WBH-16	7/26/2012	22	2	24.45	24.73	0.28	30.31	5.86	1.68	Y	No concrete collar
WBH-14	7/26/2012	0	2				9.02		2.62	Y	No concrete collar
WBH-18	7/26/2012	1	2		24.24		30.20	5.96	1.48	Y	No concrete collar
WBH-11	7/26/2012	1	2	24.41	25.03	0.62	30.28	5.87	1.87	Y	No concrete collar
WBH-19	7/26/2012	0.04	2	24.24	24.99	0.75	30.17	5.93	1.68	Y	No concrete collar
BH-98	7/27/2012	0	2	20.17	20.31	0.14	26.99	6.82	2.13	Y	No concrete collar
BH-88	7/31/2012	24	2	24.56	24.93	0.37	31.49	6.93	1.48	Y	No concrete collar
BH-16	7/31/2012	104	2	22.85	23.20	0.35	29.50	6.65	0.62	Y	No concrete collar
BH-82	7/31/2012	11	2	25.25	25.35	0.10	31.80	6.55	1.77	Y	No concrete collar
BH-83	7/31/2012	27	2	24.93	25.09	0.16	30.91	5.98	1.85	Y	No concrete collar
BH-90	7/31/2012	3	2	24.87	24.99	0.12	29.73	4.86	2.06	Y	No concrete collar
BH-84	7/31/2012	6	2	24.34	24.62	0.28	30.22	5.88	1.37	Y	No concrete collar
BH-89	7/31/2012	2	2	24.51	24.54	0.03	31.07	6.56	2.14	Y	No concrete collar
BH-81	7/31/2012	28	2	24.22	24.50	0.28	30.38	6.16	1.42	Y	No concrete collar
BH-36	7/31/2012	0.7	2	21.23	21.29	0.06	31.46	10.23	1.57	Y	No concrete collar
BH-101	7/26/2012	0	2	21.07	21.21	0.14	27.22	6.15	1.78	Y	No concrete collar

Appendix A - Monument Well Evaluations July 2012

Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	PID	Casing Dia (in)	DTP (ft-bmp)	DTW (ft-bmp)	Thickness (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	Well Marked Y/N	Surface Condition
BH-100	7/26/2012	0	2		20.79		28.39	7.60	1.90	Y	No concrete collar
BH-99	7/26/2012	25	2		20.83		26.10	5.27	2.11	Y	No concrete collar
BH-30	7/31/2012		2	19.30	19.60	0.30	28.92	9.62	1.41	Y	No concrete collar
BH-97	7/27/2012	1	2	19.70	20.02	0.32	26.90	7.20	2.02	Y	No concrete collar
BH-29	7/27/2012	0.05	2	18.60	18.66	0.06	26.31	7.71	1.81	Y	No concrete collar
BH-9A	7/27/2012	0	2	17.96	18.04	0.08	25.52	7.56	1.57	Y	No concrete collar
BH-77	7/26/2012	71	2		17.94		26.47	8.53	1.38	Y	No concrete collar
BH-13	7/27/2012	80	2	18.27	18.36	0.09	24.23	5.96	2.02	Y	No concrete collar
BH-95	7/27/2012	0	2	18.96	19.24	0.28	27.02	8.06	1.85	Y	No concrete collar
BH-96	7/27/2012	71	2	19.15	19.38	0.23	27.00	7.85	1.08	Y	No concrete collar
BH-54	7/27/2012	24	2	17.50	17.58	0.08	27.11	9.61	1.31	Y	No concrete collar
BH-53	7/27/2012	11	2	17.59	17.60	0.01	19.43	1.84	1.73	Y	No concrete collar
BH-55	7/27/2012	11	2		17.34		17.75	0.41	1.50	Y	No concrete collar
BH-56	7/27/2012	0	2		16.88		25.01	8.13	1.01	Y	No concrete collar
BH-12	7/27/2012	0	2		18.55		24.91	6.36	1.74	Y	cracked pipe
BH-11	7/27/2012	0	2		17.18		24.28	7.10	1.95	Y	cracked pipe
BH-45	7/27/2012	0.03	2	16.17	17.70	1.53	26.01	9.84	1.87	Y	No concrete collar
BH-7	7/30/2012		2	18.15	18.69	0.54	24.60	6.45	1.60	Y	No concrete collar
BH-21	7/30/2012		2	18.03	18.12	0.09	25.01	6.98	2.60	Y	No concrete collar
BH-22	7/30/2012		2	18.81	18.91	0.10	26.99	8.18	2.10	Y	No concrete collar
BH-57	7/30/2012		2	18.87	18.99	0.12	25.70	6.83	2.56	Y	No concrete collar
BH-58	7/30/2012		2	19.25	19.52	0.27	28.17	8.92	2.58	Y	No concrete collar
BH-60 ???	7/30/2012		2	19.05	19.54	0.49	27.18	8.13	1.92	Y	No concrete collar
BH-59	7/30/2012		2	19.01	19.15	0.14	28.18	9.17	2.47	Y	No concrete collar
BH-23	7/30/2012		2	18.72	19.02	0.30	27.25	8.53	2.65	Y	No concrete collar
BH-19	7/30/2012		2	19.79	19.81	0.02	25.94	6.15	1.61	Y	No concrete collar
BH-14	7/27/2012		2	18.25	18.37	0.12	25.16	6.91	2.26	Y	No concrete collar
BH-61	7/30/2012		2	19.46	19.97	0.51	29.23	9.77	2.56	Y	No concrete collar
BH-62	7/30/2012		2	18.88	19.67	0.79	27.92	9.04	2.46	Y	No concrete collar
BH-24	7/30/2012		2	18.59	18.81	0.22	26.35	7.76	2.41	Y	No concrete collar
BH-8A	7/30/2012	25	2	18.27	18.71	0.44	24.54	6.27	2.35	Y	No concrete collar

Appendix A - Monument Well Evaluations July 2012

Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	PID	Casing Dia (in)	DTP (ft-bmp)	DTW (ft-bmp)	Thickness (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	Well Marked Y/N	Surface Condition
BH-25	7/30/2012		2	19.42	19.72	0.30	25.85	6.43	2.54	Y	No concrete collar
BH-67	7/30/2012		2	20.11	20.85	0.74	26.50	6.39	2.57	Y	No concrete collar
BH-76	7/30/2012		2	19.63	19.78	0.15	29.01	9.38	1.78	Y	No concrete collar
BH-75	7/30/2012		2	21.10	21.30	0.20	29.47	8.37	2.70	Y	No concrete collar
BH-47	7/30/2012	0	2	????	17.46		24.88	7.42	2.47	Y	No concrete collar
BH-72	7/30/2012	176	2	17.19	17.21	0.02	23.44	6.25	1.90	Y	No concrete collar
BH-52	7/30/2012	50	2		18.39		25.36	6.97	1.84	Y	No concrete collar
BH-116-4	7/30/2012	0	2		19.49		25.21	5.72	2.57	Y	No concrete collar
BH-68	7/30/2012	0	2	18.37	18.64	0.27	26.01	7.64	2.35	Y	No concrete collar
BH-71	7/30/2012	46	2	????	16.86		23.35	6.49	1.82	Y	No concrete collar
BH-117	7/30/2012	0	4		19.15		27.72	8.57	2.55	Y	No concrete collar
BH-119-4	7/30/2012	0	4		19.31		27.85	8.54	2.52	Y	No concrete collar
BH-118	7/30/2012	28	4		18.50		27.68	9.18	2.54	Y	No concrete collar
BH-122-4	7/30/2012	0	4	17.34	17.39	0.05	27.64	10.30	2.48	Y	No concrete collar
BH-120-4	7/30/2012	31	4		18.42		30.12	11.70	1.35	Y	No concrete collar
BH-121-4	7/30/2012	0	4		17.58		27.48	9.90	2.31	Y	No concrete collar
BH-65	7/30/2012		2	19.85	21.02	1.17	28.24	8.39	2.76	Y	No concrete collar
BH-64	7/30/2012		2	20.00	21.64	1.64	28.77	8.77	2.61	Y	No concrete collar
BH-63	7/30/2012		2	19.71	20.05	0.34	28.45	8.74	2.43	Y	No concrete collar
BH-91	7/30/2012	5	2	24.01	25.01	1.00	30.28	6.27	1.01	Y	No concrete collar
BH-18	7/30/2012	3	2	24.53	25.01	0.48	30.41	5.88	1.52	Y	No concrete collar
BH-66	7/30/2012		2	20.84	21.38	0.54	30.37	9.53	2.78	Y	No concrete collar
BH-39	7/30/2012		2	20.10	20.31	0.21	29.01	8.91	1.50	Y	No concrete collar
BH-40	7/30/2012		2	19.48	19.68	0.20	29.10	9.62	1.70	Y	No concrete collar
BH-4-4	7/30/2012		4	18.88	19.05	0.17	25.36	6.48	0.54	Y	No concrete collar
BH-80	7/30/2012		2	18.53	19.27	0.74	27.09	8.56	1.82	Y	No concrete collar
BH-41	7/30/2012		2	18.90	19.46	0.56	29.50	10.60	1.61	Y	No concrete collar
BH-48	7/30/2012		2	18.90	19.22	0.32	28.80	9.90	1.86	Y	No concrete collar
BH-42	7/30/2012		2	19.52	20.43	0.91	29.66	10.14	2.32	Y	No concrete collar
BH-106	7/30/2012		2	19.83	19.94	0.11	27.40	7.57	2.14	Y	No concrete collar
BH-105	7/30/2012		2	19.73	19.89	0.16	25.85	6.12	1.53	Y	No concrete collar

Appendix A - Monument Well Evaluations July 2012

Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	PID	Casing Dia	DTP	DTW	Thickness	TD	Saturated	Stick up	Well Marked	Surface Condition
			(in)	(ft-bmp)	(ft-bmp)	(ft)	(ft-bmp)	(ft)	(ft) Y/N	Y/N	
BH-104	7/30/2012		2	20.23	21.64	1.41	24.74	4.51	2.26	Y	No concrete collar
BH-17	7/30/2012		2	21.85	22.45	0.60	27.60	5.75	2.98	Y	No concrete collar
BH-103	7/30/2012		2	20.48	20.72	0.24	25.60	5.12	2.06	Y	No concrete collar
BH-106	???	Repeated ??	2								
BH-33	(well not installed)										
BH-110	7/30/2012		2	19.80	19.97	0.17	26.95	7.15	2.77	Y	No concrete collar
BH-109	7/30/2012	0	2		19.87		26.84	6.97	2.42	Y	No concrete collar
BH-115	7/30/2012		2	20.98	21.54	0.56	29.56	8.58	2.66	Y	No concrete collar
BH-108	7/30/2012		2	20.31	20.88	0.57	26.16	5.85	2.25	Y	No concrete collar
BH-114	7/26/2012	27.8	2	20.85	21.29	0.44	27.44	6.59	2.73	Y	No concrete collar
BH-107	7/30/2012		2	21.21	21.50	0.29	26.77	5.56	2.41	Y	No concrete collar
BH-103 ??			2								
BH-111	7/30/2012		2	21.36	22.90	1.54	27.14	5.78	2.56	Y	No concrete collar
MW-6	7/26/2012	0	2		16.42		32.62	16.20	2.41	Y	Monument, good condition
MW-3	7/26/2012	0	2		21.72		37.52	15.80	2.41	Y	Monument, good condition
MW-5	7/26/2012	0	2		24.00		39.36	15.36	2.32	Y	Monument, good condition
MW-1	7/26/2012	0	2		22.02		38.77	16.75	2.51	Y	Monument, good condition
MW-7	7/26/2012	0	2		18.84		32.27	13.43	2.53	Y	Monument, good condition

APPENDIX B

ABANDONED BOREHOLES WELLS

Appendix B - Abandoned Boreholes, February 2013

Holly Energy - North Monument - Lea County, New Mexico

Well ID	Abandoned (X)
WBH-7	X
WBH-7A	X
WBH-20	
WBH-27	X
WBH-5A	
WBH-3A	
WBH-2A	
WBH-8	
WBH-20A	X
WBH-15	
WBH-17	
WBH-16	
WBH-14	X
WBH-18	
WBH-11	
WBH-19	
BH-98	
BH-88	
BH-16	
BH-82	
BH-83	
BH-90	
BH-84	
BH-89	
BH-81	
BH-36	X
BH-101	X
BH-100	X
BH-99	X
BH-30	
BH-97	
BH-29	X
BH-9A	
BH-77	X
BH-13	X
BH-95	
BH-96	
BH-54	
BH-53	X
BH-55	X
BH-56	X
BH-12	X
BH-11	X
BH-45	
BH-7	
BH-21	
BH-22	
BH-57	

Well ID	Abandoned (X)
BH-58	
BH-60	
BH-59	
BH-23	
BH-19	
BH-14	
BH-61	
BH-62	
BH-24	
BH-8A	
BH-25	
BH-67	
BH-76	
BH-75	
BH-47	X
BH-72	X
BH-52	X
BH-116-4	X
BH-68	X
BH-71	X
BH-117	X
BH-119-4	X
BH-118	X
BH-122-4	X
BH-120-4	X
BH-121-4	X
BH-65	
BH-64	
BH-63	
BH-91	
BH-18	
BH-66	
BH-39	
BH-40	
BH-4-4	
BH-80	
BH-41	
BH-48	
BH-42	
BH-106	
BH-105	
BH-104	
BH-17	
BH-103	
BH-33	
BH-110	
BH-109	
BH-115	

Well ID	Abandoned (X)
BH-108	
BH-114	
BH-107	
BH-103	
BH-111	
MW-6	
MW-3	
MW-5	
MW-1	
MW-7	

APPENDIX C

DECEMBER 2012 WELL EVALUATIONS AND FLUID LEVELS

Appendix C - Monument Well Evaluations and Fluid Levels, December 2012
Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod Thick (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	DTW (ft-bgs)	DTP (ft-bgs)
WBH-7	12/20/2012		25.56	0.00	26.15	0.59	2.07	23.49	
WBH-7A	12/20/2012		24.85	0.00	33.25	8.40	1.21	23.64	
WBH-20	12/20/2012	23.81	24.92	1.11	30.31	6.50	1.00	23.92	22.81
WBH-27	12/20/2012	24.77	24.80	0.03	33.68	8.91	1.45	23.35	23.32
WBH-5A	12/20/2012	24.45	24.50	0.05	30.25	5.80	1.70	22.80	22.75
WBH-3A	12/20/2012	25.44	25.53	0.09	31.55	6.11	2.16	23.37	23.28
WBH-2A	12/20/2012	24.59	24.96	0.37	30.34	5.75	1.30	23.66	23.29
WBH-8	12/20/2012	25.04	25.12	0.08	30.32	5.28	1.71	23.41	23.33
WBH-20A	12/20/2012		24.65	0.00	32.30	7.65	1.66	22.99	-1.66
WBH-15	12/20/2012	24.94	25.08	0.14	30.23	5.29	1.37	23.71	23.57
WBH-17	12/20/2012	24.41	24.49	0.08	30.22	5.81	1.01	23.48	23.40
WBH-16	12/20/2012	24.51	24.54	0.03	30.31	5.80	1.68	22.86	22.83
WBH-14	12/20/2012	dry		0.00	9.02		2.62		
WBH-18	12/20/2012		24.31	0.00	30.20	5.89	1.48	22.83	
WBH-11	12/20/2012	24.40	25.69	1.29	30.28	5.88	1.87	23.82	22.53
WBH-19	12/20/2012	24.27	24.30	0.03	30.17	5.90	1.68	22.62	22.59
BH-98	12/18/2012	20.17	20.20	0.03	26.99	6.82	2.13	18.07	18.04
BH-88	12/18/2012	24.56	24.90	0.34	31.49	6.93	1.48	23.42	23.08
BH-16	12/18/2012	22.83	23.17	0.34	29.50	6.67	0.62	22.55	22.21
BH-82	12/18/2012	25.25	25.31	0.06	31.80	6.55	1.77	23.54	23.48
BH-83	12/18/2012	24.93	25.07	0.14	30.91	5.98	1.85	23.22	23.08
BH-90	12/18/2012	24.86	24.96	0.10	29.73	4.87	2.06	22.90	22.80
BH-84	12/18/2012	24.35	24.63	0.28	30.22	5.87	1.37	23.26	22.98
BH-89	12/18/2012	24.50	24.51	0.01	31.07	6.57	2.14	22.37	22.36
BH-81	12/18/2012	24.21	24.49	0.28	30.38	6.17	1.42	23.07	22.79
BH-36	12/18/2012		21.22	0.00	31.46	31.46	1.57	19.65	
BH-101	12/18/2012	21.04	21.07	0.03	27.22	6.18	1.78	19.29	19.26
BH-100	12/18/2012		20.78	0.00	28.39	7.61	1.90	18.88	
BH-99	12/18/2012		20.82	0.00	26.10	5.28	2.11	18.71	
BH-30	12/18/2012	19.30	19.59	0.29	28.92	9.62	1.41	18.18	17.89
BH-97	12/18/2012	19.70	19.99	0.29	26.90	7.20	2.02	17.97	17.68
BH-29	12/18/2012	18.58	18.62	0.04	26.31	7.73	1.81	16.81	16.77
BH-9A	12/18/2012	17.95	18.00	0.05	25.52	7.57	1.57	16.43	16.38
BH-77	12/18/2012		17.95	0.00	26.47	8.52	1.38	16.57	
BH-13	12/18/2012	18.26	18.30	0.04	24.23	5.97	2.02	16.28	16.24
BH-95	12/18/2012	18.97	19.21	0.24	27.02	8.05	1.85	17.36	17.12
BH-96	12/18/2012	19.15	19.33	0.18	27.00	7.85	1.08	18.25	18.07
BH-54	12/18/2012	17.61	17.63	0.02	27.11	9.50	1.31	16.32	16.30
BH-53	12/18/2012		17.62	0.00	19.43	19.43	1.73	15.89	
BH-55	12/18/2012	17.36	17.68	0.32	17.75	0.07	1.50	16.18	15.86
BH-56	12/18/2012		16.87	0.00	25.01	8.14	1.01	15.86	

Appendix C - Monument Well Evaluations and Fluid Levels, December 2012
Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod Thick (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	DTW (ft-bgs)	DTP (ft-bgs)
BH-12	12/18/2012		17.53	0.00	24.91	7.38	1.74	15.79	
BH-11	12/18/2012		17.84	0.00	24.28	6.44	1.95	15.89	
BH-45	12/18/2012	16.20	16.72	0.52	26.01	9.81	1.87	14.85	14.33
BH-7	12/18/2012	18.16	18.80	0.64	24.60	6.44	1.60	17.20	16.56
BH-21	12/18/2012	18.05	18.06	0.01	25.01	6.96	2.60	15.46	15.45
BH-22	12/18/2012	18.84	19.07	0.23	26.99	8.15	2.10	16.97	16.74
BH-57	12/18/2012	18.90	18.95	0.05	25.70	6.80	2.56	16.39	16.34
BH-58	12/18/2012	19.28	19.46	0.18	28.17	8.89	2.58	16.88	16.70
BH-60	12/18/2012	19.13	19.19	0.06	27.18	8.05	1.92	17.27	17.21
BH-59	12/18/2012	19.05	19.18	0.13	28.18	9.13	2.47	16.71	16.58
BH-23	12/18/2012	18.75	19.03	0.28	27.25	8.50	2.65	16.38	16.10
BH-19	12/18/2012	19.87	19.88	0.01	25.94	6.07	1.61	18.27	18.26
BH-14	12/18/2012	18.25	18.27	0.02	25.16	6.91	2.26	16.01	15.99
BH-61	12/18/2012	19.49	20.03	0.54	29.23	9.74	2.56	17.47	16.93
BH-62	12/18/2012	18.85	19.82	0.97	27.92	9.07	2.46	17.36	16.39
BH-24	12/18/2012	18.61	18.71	0.10	26.35	7.74	2.41	16.30	16.20
BH-8A	12/18/2012	18.28	18.64	0.36	24.54	6.26	2.35	16.29	15.93
BH-25	12/18/2012	19.42	19.65	0.23	25.85	6.43	2.54	17.11	16.88
BH-67	12/18/2012	20.07	21.04	0.97	26.50	6.43	2.57	18.47	17.50
BH-76	12/18/2012	19.62	19.83	0.21	29.01	9.39	1.78	18.05	17.84
BH-75	12/18/2012	21.11	21.22	0.11	29.47	8.36	2.70	18.52	18.41
BH-47	12/18/2012		17.53	0.00	24.88	7.35	2.47	15.06	
BH-72	12/18/2012	17.25	17.28	0.03	23.44	6.19	1.90	15.38	15.35
BH-52	12/18/2012		18.45	0.00	25.36	6.91	1.84	16.61	
BH-116-4	12/18/2012		19.56	0.00	25.21	5.65	2.57	16.99	
BH-68	12/18/2012	18.44	18.71	0.27	26.01	7.57	2.35	16.36	16.09
BH-71	12/18/2012		16.95	0.00	23.35	6.40	1.82	15.13	
BH-117	12/18/2012		19.22	0.00	27.72	8.50	2.55	16.67	
BH-119-4	12/18/2012		19.21	0.00	27.85	8.64	2.52	16.69	
BH-118	12/18/2012		18.57	0.00	27.68	9.11	2.54	16.03	
BH-122-4	12/18/2012	17.42	17.43	0.01	27.64	10.22	2.48	14.95	14.94
BH-120-4	12/18/2012		18.51	0.00	30.12	11.61	1.35	17.16	
BH-121-4	12/18/2012		17.65	0.00	27.48	9.83	2.31	15.34	
BH-65	12/18/2012	19.83	20.97	1.14	28.24	8.41	2.76	18.21	17.07
BH-64	12/18/2012	19.93	22.09	2.16	28.77	8.84	2.61	19.48	17.32
BH-63	12/18/2012		20.06	0.00	28.45	28.45	2.43	17.63	
BH-91	12/18/2012	23.92	25.50	1.58	30.28	6.36	1.01	24.49	22.91
BH-18	12/18/2012	24.52	25.12	0.60	30.41	5.89	1.52	23.60	23.00
BH-66	12/18/2012	20.85	21.37	0.52	30.37	9.52	2.78	18.59	18.07
BH-39	12/18/2012	20.04	20.36	0.32	29.01	8.97	1.50	18.86	18.54
BH-40	12/18/2012	19.54	19.90	0.36	29.10	9.56	1.70	18.20	17.84
BH-4-4	12/18/2012	18.90	19.07	0.17	25.36	6.46	0.54	18.53	18.36
BH-80	12/18/2012	18.55	19.33	0.78	27.09	8.54	1.82	17.51	16.73
BH-41	12/18/2012	18.94	19.49	0.55	29.50	10.56	1.61	17.88	17.33

Appendix C - Monument Well Evaluations and Fluid Levels, December 2012
Holly Energy - North Monument - Lea County, New Mexico

Well ID	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod Thick (ft)	TD (ft-bmp)	Saturated (ft)	Stick up (ft) Y/N	DTW (ft-bgs)	DTP (ft-bgs)
BH-48	12/18/2012	18.94	19.24	0.30	28.80	9.86	1.86	17.38	17.08
BH-42	12/18/2012	19.55	20.36	0.81	29.66	10.11	2.32	18.04	17.23
BH-106	12/18/2012	19.89	20.00	0.11	27.40	7.51	2.14	17.86	17.75
BH-105	12/18/2012	19.78	19.88	0.10	25.85	6.07	1.53	18.35	18.25
BH-104	12/18/2012	20.12	22.45	2.33	24.74	4.62	2.26	20.19	17.86
BH-17	12/18/2012	21.77	23.08	1.31	27.60	5.83	2.98	20.10	18.79
BH-103	12/18/2012	20.50	20.98	0.48	25.60	5.10	2.06	18.92	18.44
BH-110	12/18/2012	19.87	20.08	0.21	26.95	7.08	2.77	17.31	17.10
BH-109	12/18/2012		19.91	0.00	26.84	6.93	2.42	17.49	-2.42
BH-115	12/18/2012	21.03	21.63	0.60	29.56	8.53	2.66	18.97	18.37
BH-108	12/18/2012	20.33	21.08	0.75	26.16	5.83	2.25	18.83	18.08
BH-114	12/18/2012	20.66	22.55	1.89	27.44	6.78	2.73	19.82	17.93
BH-107	12/18/2012	21.23	21.81	0.58	26.77	5.54	2.41	19.40	18.82
BH-103 ??	12/20/2012	20.60	21.06	0.46				21.06	20.60
BH-111	12/18/2012	21.38	23.19	1.81	27.14	5.76	2.56	20.63	18.82
MW-6	12/18/2012		17.50	0.00	32.62	15.12	2.41	15.09	
MW-3	12/18/2012		21.75	0.00	37.52	15.77	2.41	19.34	
MW-5	12/18/2012		23.99	0.00	39.36	15.37	2.32	21.67	
MW-1	12/18/2012		22.27	0.00	38.77	16.50	2.51	19.76	
MW-7	12/18/2012		18.93	0.00	32.27	13.34	2.53	16.40	

APPENDIX D

JUNE 2013 FLUID LEVELS

Appendix D - June 2013 Fluid Levels
Holly Energy - North Monument - Lea Coun

Well ID	Date	DTP	DTW	Prod Thick	TD
		(ft-bmp)	(ft-bmp)	(ft)	(ft-bmp)
WBH-20	6/19/2013	23.75	25.11	1.36	30.31
WBH-5A	6/19/2013	25.43	25.55	0.12	30.25
WBH-3A	6/19/2013	25.42	25.59	0.17	31.55
WBH-2A	6/19/2013	24.57	25.01	0.44	30.34
WBH-8	6/19/2013	25.16	25.20	0.04	30.32
WBH-15	6/19/2013	24.95	25.10	0.15	30.23
WBH-17	6/19/2013	24.40	24.56	0.16	30.22
WBH-16	6/19/2013	24.31	24.62	0.31	30.31
WBH-18	6/19/2013		24.31	0.00	30.20
WBH-11	6/19/2013	24.29	26.36	2.07	30.28
WBH-19	6/19/2013	24.26	24.40	0.14	30.17
BH-98	6/19/2013	20.25	20.35	0.10	26.99
BH-88	6/19/2013	24.68	25.18	0.50	31.49
BH-16	6/19/2013	22.90	23.32	0.42	29.50
BH-82	6/19/2013	25.30	25.43	0.13	31.80
BH-83	6/19/2013	25.01	25.20	0.19	30.91
BH-90	6/19/2013	24.95	25.20	0.25	29.73
BH-84	6/19/2013	24.40	24.81	0.41	30.22
BH-89	6/19/2013	24.59	24.61	0.02	31.07
BH-81	6/19/2013	24.29	24.72	0.43	30.38
BH-30	6/19/2013	19.38	19.68	0.30	28.92
BH-97	6/19/2013	19.80	20.15	0.35	26.90
BH-9A	6/19/2013	18.07	18.27	0.20	25.52
BH-95	6/19/2013	19.03	19.30	0.27	27.02
BH-96	6/19/2013	19.25	19.55	0.30	27.00
BH-54	6/19/2013	17.71	17.80	0.09	27.11
BH-45	6/19/2013	16.31	17.00	0.69	26.01
BH-7	6/19/2013	18.28	19.12	0.84	24.60
BH-21	6/19/2013	18.15	18.40	0.25	25.01
BH-22	6/19/2013	18.93	19.11	0.18	26.99
BH-57	6/19/2013	19.03	19.16	0.13	25.70
BH-58	6/19/2013	19.40	19.82	0.42	28.17
BH-60	6/19/2013	19.21	19.53	0.32	27.18
BH-59	6/19/2013	19.17	19.52	0.35	28.18
BH-23	6/19/2013	18.79	19.10	0.31	27.25
BH-19	6/19/2013	19.97	20.05	0.08	25.94
BH-14	6/19/2013	18.30	18.53	0.23	25.16
BH-61	6/19/2013	19.55	20.10	0.55	29.23
BH-62	6/19/2013	18.90	20.28	1.38	27.92
BH-24	6/19/2013	18.52	18.88	0.36	26.35
BH-8A	6/19/2013	18.33	18.88	0.55	24.54

Appendix D - June 2013 Fluid Levels
Holly Energy - North Monument - Lea Coun

Well ID	Date	DTP	DTW	Prod Thick	TD
		(ft-bmp)	(ft-bmp)	(ft)	(ft-bmp)
BH-25	6/19/2013	19.51	19.83	0.32	25.85
BH-67	6/19/2013	20.18	21.37	1.19	26.50
BH-76	6/19/2013	19.72	20.06	0.34	29.01
BH-75	6/19/2013	21.25	21.38	0.13	29.47
BH-65	6/19/2013	19.95	21.10	1.15	28.24
BH-64	6/19/2013	20.07	22.40	2.33	28.77
BH-63	6/19/2013	19.80	20.31	0.51	28.45
BH-91	6/19/2013	23.01	26.01	3.00	30.28
BH-18	6/19/2013	24.25	25.36	1.11	30.41
BH-66	6/19/2013	20.92	21.53	0.61	30.37
BH-39	6/19/2013	20.11	20.62	0.51	29.01
BH-40	6/19/2013	19.61	20.15	0.54	29.10
BH-4-4	6/19/2013	19.02	19.28	0.26	25.36
BH-80	6/19/2013	18.60	19.63	1.03	27.09
BH-41	6/19/2013	19.03	19.73	0.70	29.50
BH-48	6/19/2013	19.06	19.54	0.48	28.80
BH-42	6/19/2013	19.65	20.50	0.85	29.66
BH-106	6/19/2013	20.02	20.17	0.15	27.40
BH-105	6/19/2013	19.89	20.04	0.15	25.85
BH-104	6/19/2013	20.21	22.61	2.40	24.74
BH-17	6/19/2013	21.63	23.82	2.19	27.60
BH-103	6/19/2013	20.38	22.35	1.97	25.60
BH-110	6/19/2013	19.98	20.35	0.37	26.95
BH-109	6/19/2013		20.10	0.00	26.84
BH-115	6/19/2013	21.08	22.20	1.12	29.56
BH-108	6/19/2013	20.40	21.57	1.17	26.16
BH-114	6/19/2013	20.73	23.05	2.32	27.44
BH-107	6/19/2013	20.28	21.35	1.07	26.77
BH-111	6/19/2013	21.48	23.52	2.04	27.14
MW-6	6/23/2013		19.78	0.00	32.62
MW-3	6/23/2013		21.10	0.00	37.52
MW-5	6/23/2013		21.36	0.00	39.36
MW-1	6/23/2013		22.32	0.00	38.77
MW-7	6/23/2013		19.08	0.00	32.27
MRW-1	6/19/2013		19.98	0.00	
MRW-2	6/19/2013	19.42	19.62	0.20	
MRW-3	6/19/2013	19.10	20.02	0.92	
MRW-4	6/19/2013	18.68	20.63	1.95	
MRW-5	6/19/2013	17.80	20.80	3.00	
MRW-6	6/19/2013	20.08	20.30	0.22	
MRW-7	6/19/2013	19.40	19.41	0.01	
MRW-8	6/19/2013		20.31	0.00	
MRW-9	6/19/2013	19.62	19.75	0.13	

Appendix D - June 2013 Fluid Levels
Holly Energy - North Monument - Lea Coun

Well ID	Date	DTP	DTW	Prod Thick	TD
		(ft-bmp)	(ft-bmp)	(ft)	(ft-bmp)
MRW-10	6/19/2013		20.10	0.00	
MRW-11	6/19/2013	26.13	26.15	0.02	
MRW-12	6/19/2013		26.27	0.00	
MRW-13	6/19/2013		25.49	0.00	
MRW-14	6/19/2013	25.25	25.35	0.10	

APPENDIX E

GROUNDWATER SAMPLING FIELD FORMS

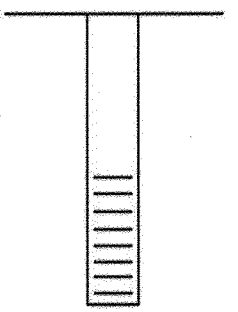
MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: NORTH MONUMENT
Ref. No.: 0785612
Date: 12/18/12
Personnel: CE, SB, BS
SAMPLE TIME 1235

Monitoring Well Data:

Well No.: MW-1
Vapour PID (ppm):
Measurement Point: TOC
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):
Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]: 25.27
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 22.27



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C/°F	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
			Precision Required[5]:	±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1225	160	22.31		68.25	0.955		0.55	6.76	-277		
1228	1	22.29		68.23	0.954		0.50	6.77	-271		
1235	1	22.30		68.25	0.954		0.50	6.77	-270		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: N. Monument

Ref. No.:

Date: 12-18-12

Personnel: CE, JB

Samp time = 1305

Monitoring Well Data:

Well No.: MW-7

Vapour PID (ppm):

Measurement Point: TOC

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft):

Depth of Sediment (m/ft):

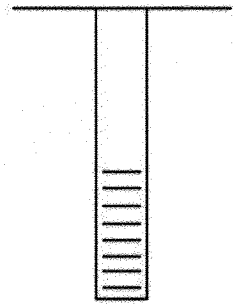
Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)[1]: 21.93

Well Diameter, D (cm/in): 2"

Well Screen Volume, V_s (L)[2]:

Initial Depth to Water (m/ft): 18.93



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
			Precision Required[5]:	±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1259	160	18.98		69.47	0.857		0.52	6.77	-398		
1302	160	19.00		69.43	0.856		0.49	6.77	-400		
1305	160	19.00		69.35	0.856		0.47	6.77	-400		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: N. Monument

Ref. No.:

Date: 12-18-12

Personnel: CE, JB

Samp time: 1335

Monitoring Well Data:

Well No.: MW-6

Vapour PID (ppm):

Measurement Point: TOC

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft):

Depth of Sediment (m/ft):

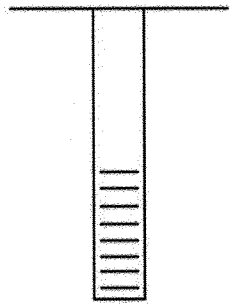
Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)[1]: 20.50

Well Diameter, D (cm/in): 2"

Well Screen Volume, V_s (L)[2]:

Initial Depth to Water (m/ft): 17.50



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C °F	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1329	160	17.50		70.30	1.053	[illegible]	0.62	6.67	-385		
1332	1	17.51		70.27	1.053		0.58	6.67	-390		
1335	1	17.51		70.26	1.053		0.55	6.67	-394		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

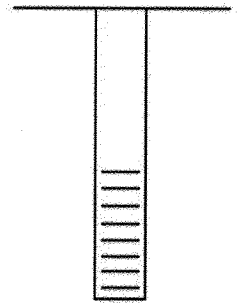
Project Name: N. MONUMENT
Ref. No.:

Date: 12-18-12
Personnel: CE, JB
samp time = 1420

Monitoring Well Data:

Well No.: MW-3
Vapour PID (ppm):
Measurement Point: TOC
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]: 24.75
Well Diameter, D (cm/in): 2"
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 21.75



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1414	160	21.85		68.66	1.466		0.91	6.85	-386		
1417	1	21.87		68.60	1.466		0.88	6.85	-389		
1420	1	21.88		68.59	1.465		0.84	6.84	-391		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: N. MONUMENT

Ref. No.:

Date: 12-18-12

Personnel: JB, CE, BS

Samp Time = 1455

Monitoring Well Data:

Well No.: MW-5 (Dup)

Vapour PID (ppm):

Measurement Point: TOC

Constructed Well Depth (m/ft):

Measured Well Depth (m/ft):

Depth of Sediment (m/ft):

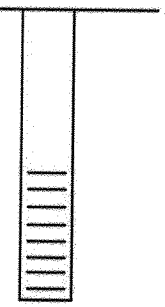
Saturated Screen Length (m/ft):

Depth to Pump Intake (m/ft)[1]: 26.99

Well Diameter, D (cm/in): 2"

Well Screen Volume, V_s (L)[2]:

Initial Depth to Water (m/ft): 23.99



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1449	160	24.05		67.85	1.417		0.72	6.77	-321		
1452	160	24.05		67.79	1.417		0.73	6.77	-323		
1455	160	24.05		67.81	1.417		0.72	6.77	-322		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm. For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Location: Monument Date: 6.23.13

Project / Client: 078802 HEP

J. Covey

1130 Arrive onsite

Personnel: J Covey

Equipment: ~~ft~~ YSI w/ flow thru cell

- Interface Probe
- geosub pump
- Turb. meter

~~Water~~ fluid levels (bmp)

Well ID	DTP	DTW	Product thick	Time
MW-1	—	22.32	—	1140
BH-45	16.31	17.00	0.69	1300
MW-7	—	19.08	—	1310
MW-6	—	~~20~~ 19.78	—	1405
MW-3	—	21.10	—	1435
MW-5	—	21.36	—	1520

1550 Mob offsite

Location: Monument Date: 6.23.13

Project / Client: 078802 HEP

Sampling J. Covey

Well ID		Temp (°C)	DO (mg/L)	pH	Cond (uS/cm)	ORP (mV)	Turb	Sample time
MW-1	1	21.6	0.36	6.58	1088	323.3	5.23	
+DUP	2	21.3	0.26	6.64	1084	312.6	4.46	DUP-1240
	3	22.0	0.25	6.65	1086	303.7	4.10	1235
MW-7	1	20.8	0.66	6.65	999	182.9	999+	
	2	22.1	0.46	6.72	998	192.8	999+	
	3	22.4	0.40	6.79	996	185.7	803	1330
MW-6	1	24.4	7.58	6.60	4.9	58.8	376	
	2	22.2	0.10	6.55	1155	-72.1	74.8	
	3	23.0	0.13	6.62	1169	-87.4	37.4	1425
MW-3	1	22.7	0.66	6.67	1714	196.2	235	
	2	21.6	1.20	6.66	1692	186.3	466	
	3	21.4	1.40	6.66	1691	183.1	184	1505
MW-5	1	23.8	1.32	6.67	1691	230.3	999+	
	2	23.6	0.99	6.67	1688	227.3	794	
	3	23.2	0.96	6.70	1690	226.2	612	1550

APPENDIX F

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Appendix F - Summary of Historical Groundwater Data Through June 2013
Holly Energy - North Monument - Lea County, New Mexico

Monitoring Well	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	10/21/2002	<2	<2	<2	<6	<6	- -	- -							
MP =	12/27/2002	<2	<2	<2	<6	<6	- -	- -							
3,670.05	5/21/2003	<2	<2	<2	<6	<6	- -	- -							
	10/15/2003	<2	<2	<2	<6	<6	- -	- -							
	3/15/2004	<2	<2	<2	<6	<6	**264**	950							
	10/8/2004	<2	<2	<2	<6	<6	**256**	946							
	1/12/2005	<2	<2	<2	<6	<6	**252**	**1,009**							
	10/24/2005	<2	<2	<2	<6	<6	**260**	**1,021**							
	3/7/2006	<2	<2	<2	<6	<6	244	957							
	6/27/2006	<2	<2	<2	<6	<6	220	921							
	9/7/2006	<0.5	<0.5	<0.5	<1.0	<1.0	190	890							
	12/19/2006	<0.5	<0.5	<0.5	<1.0	<1.0	210	**1,000**							
	3/13/2007	<0.5	<0.5	<0.5	<1.0	<1.0	240	**1,000**							
	6/21/2007	<0.5	<0.5	<0.5	<1.0	<1.0	**270**	**1,000**							
	9/21/2007	<0.5	<0.5	<0.5	<1.0	<1.0	220	**1,100**							
	12/6/2007	<0.5	<0.5	<0.5	<1.0	<1.0	230	920							
	3/4/2008	<0.5	<0.5	<0.5	<1.0	<1.0	180	810							
	6/3/2008	<0.5	<0.5	<0.5	<1.0	<1.0	180	**1,000**							
	9/23/2008	<0.5	<0.5	<0.5	<1.0	<1.0	140	830							
	12/22/2008	<0.5	<0.5	<0.5	<1.0	<1.0	43	830							
	3/12/2009	<0.5	<0.5	<0.5	<1.0	<1.0	140	890							
	6/23/2009	<1.0	<1.0	<1.0	<2.0	<2.0	180	920							
	9/8/2009	<1.0	<1.0	<1.0	<2.0	<2.0	160	921							
	12/17/2009	<1.0	<1.0	<1.0	<2.0	<2.0	160	902							
	3/9/2010	<1.0	<1.0	<1.0	<1.5	<1.5	190	951							
	6/16/2010	<1.0	<1.0	<1.0	<2.0	<2.0	150	953							
	8/30/2010	<1.0	<1.0	<1.0	<2.0	<2.0	160	**1,010**							
	12/6/2010	<1.0	<1.0	<1.0	<2.0	<2.0	150	**1,050**							
	3/18/2011	<1.0	<1.0	<1.0	<2.0	<2.0	180	**1,080**							
	6/23/2011	<1.0	<1.0	<1.0	<2.0	<2.0	170	**1,000**							
	10/7/2011	<1.0	<1.0	<1.0	<2.0	<2.0	150	883							
	12/8/2011	<1.0	<1.0	<1.0	<2.0	<2.0	140	827							
	12/18/2012	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	22.27	3,647.78	20.1	0.954	0.5	6.77	-278
	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	22.32	3,647.73	22.0	1.086	0.25	6.65	303.7
Duplicate	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	22.32	3,647.73	22.0	1.086	0.25	6.65	303.7
MW-2	10/21/2002	<2	<2	<2	<6		- -	- -							
	12/27/2002	Hydrocarbon product detected, plugged 01/23/03													

Appendix F - Summary of Historical Groundwater Data Through June 2013
Holly Energy - North Monument - Lea County, New Mexico

Monitoring Well	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-3	10/21/2002	<2	<2	<2	<6	<6	- -	- -							
MP =	12/27/2002	<2	<2	<2	<6	<6	- -	- -							
3,666.41	5/21/2003	<2	<2	<2	<6	<6	- -	- -							
	10/15/2003	<2	<2	<2	<6	<6	- -	- -							
	3/15/2004	10	<2	<2	<6	10	144	837							
	10/8/2004	19	<2	<2	<6	19	148	704							
	1/12/2005	43	<2	<2	<6	43	128	768							
	10/24/2005	80	<2	<2	<6	80	180	778							
	3/7/2006	25.7	<2.00	<2.00	7.1	32.8	184	758							
	6/27/2006	<2.00	<2.00	<2.00	<6.00	<6.00	204	831							
	9/7/2006	8.2	<0.5	<0.5	<1.0		230	1,000							
	12/19/2006	23	<0.5	<0.5	<1.0		150	740							
	3/13/2007	35	<0.5	<0.5	<1.0		170	810							
	6/21/2007	1.6	<0.5	<0.5	<1.0		260	960							
	9/21/2007	<0.5	<0.5	<0.5	<1.0		290	1,200							
	12/6/2007	0.6	<0.5	<0.5	<1.0		310	1,000							
	3/4/2008	<0.5	<0.5	<0.5	<1.0		310	1,100							
	6/3/2008	<0.5	<0.5	<0.5	<1.0		310	1,300							
	9/23/2008	<0.5	<0.5	<0.5	<1.0		320	1,300							
	12/22/2008	<0.5	<0.5	<0.5	<1.0		300	1,300							
	3/12/2009	<0.5	<0.5	<0.5	<1.0		230	1,400							
	6/23/2009	<1.0	<1.0	<1.0	<2.0		380	1,100							
	9/8/2009	<1.0	<1.0	<1.0	<2.0		370	1,090							
	12/17/2009	<1.0	<1.0	<1.0	<2.0		390	1,070							
	3/9/2010	<1.0	<1.0	<1.0	<1.5		370	1,030							
	6/16/2010	<1.0	<1.0	<1.0	<2.0		390	1,160							
	8/30/2010	<1.0	<1.0	<1.0	<2.0		400	1,270							
	12/6/2010	<1.0	<1.0	<1.0	<2.0		400	1,110							
	3/18/2011	<1.0	<1.0	<1.0	<2.0		360	1,090							
	6/23/2011	<1.0	<1.0	<1.0	<2.0		390	1,110							
	10/7/2011	<1.0	<1.0	<1.0	<2.0		400	1,120							
	12/8/2011	<1.0	<1.0	<1.0	<2.0		380	1,130							
	12/18/2012	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	21.75	3,644.66	20.4	1.465	0.84	6.84	-391
	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	21.1	3,645.31	21.4	1.691	1.4	6.66	184
MW-4	12/27/2002	Hydrocarbon product detected, plugged 01/28/03													

Appendix F - Summary of Historical Groundwater Data Through June 2013
Holly Energy - North Monument - Lea County, New Mexico

Monitoring Well	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-5	12/30/2002	<2	<2	<2	<6		- -	- -							
MP =	5/21/2003	<2	<2	<2	<6		- -	- -							
3,670.43	10/15/2003	**45**	<2	<2	<6		- -	- -							
	11/6/2003	**70**	<2	<2	<6		- -	- -							
	3/16/2004	**56**	<2	<2	<6		132	797							
	10/8/2004	**55**	<2	<2	<6		128	765							
	1/12/2005	<2	<2	<2	<6		128	880							
	10/24/2005	<2	<2	<2	<6		140	758							
	3/7/2006	<2.00	<2.00	<2.00	<6.00		136	781							
	6/27/2006	<2.00	<2.00	<2.00	<6.00		148	689							
	9/7/2006	<0.5	<0.5	<0.5	<1.0		120	780							
	12/19/2006	<0.5	<0.5	<0.5	<1.0		130	690							
	3/13/2007	<0.5	<0.5	<0.5	<1.0		110	730							
	6/21/2007	<0.5	<0.5	<0.5	<1.0		140	760							
	9/21/2007	<0.5	<0.5	<0.5	<1.0		130	840							
	12/6/2007	<0.5	<0.5	<0.5	<1.0		160	710							
	3/4/2008	<0.5	<0.5	<0.5	<1.0		170	750							
	6/3/2008	<0.5	<0.5	<0.5	<1.0		150	940							
	9/23/2008	<0.5	<0.5	<0.5	<1.0		180	900							
	12/22/2008	<0.5	<0.5	<0.5	<1.0		180	910							
	3/12/2009	<0.5	<0.5	<0.5	<1.0		180	990							
	6/23/2009	<1.0	<1.0	<1.0	<2.0		**250**	940							
	9/8/2009	<1.0	<1.0	<1.0	<2.0		240	937							
	12/17/2009	<1.0	<1.0	<1.0	<2.0		**280**	909							
	3/9/2010	<1.0	<1.0	<1.0	<1.5		**320**	931							
	6/16/2010	<1.0	<1.0	<1.0	<2.0		**320**	**1,080**							
	8/30/2010	<1.0	<1.0	<1.0	<2.0		**360**	**1,130**							
	12/6/2010	<1.0	<1.0	<1.0	<2.0		**340**	**1,030**							
	3/18/2011	<1.0	<1.0	<1.0	<2.0		**340**	**1,050**							
	6/23/2011	<1.0	<1.0	<1.0	<2.0		**380**	**1,090**							
	10/7/2011	<1.0	<1.0	<1.0	<2.0		**360**	**1,110**							
	12/8/2011	<1.0	<1.0	<1.0	<2.0		**350**	**1,120**							
	12/18/2012	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	23.99	3,646.44	19.9	1.417	0.72	6.77	-322
Duplicate	12/18/2012	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	23.99	3,646.44	19.9	1.417	0.72	6.77	-322
	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	21.36	3,649.07	23.2	1.69	0.96	6.7	226.2
MW-6	6/3/2008	2.7	1.3	49	53	106	110	870							
MP =	9/23/2008	2.0	0.9	47	9.6	59.5	120	680							
3,660.50	12/22/2008	2.0	0.6	28	3.1	33.7	110	710							
	3/12/2009	1.4	<0.5	18	2.2	21.6	90	740							
	6/23/2009	1.4	<1.0	19	<2.0	20.4	140	710							
	9/8/2009	2.2	<1.0	18	<2.0	20.2	140	726							
	12/17/2009	1.1	<1.0	12	<2.0	13.1	130	713							
	3/9/2010	<1.0	<1.0	17	<1.5	17.0	140	723							
	6/16/2010	1.0	<1.0	16	<2.0	17.0	130	716							
	8/30/2010	**20**	<1.0	31	<2.0	51.0	140	703							
	12/6/2010	7.3	<1.0	20	<2.0	27.3	130	810							
	3/18/2011	3.2	<1.0	16	2.5	21.7	130	728							
	6/23/2011	2.7	<1.0	25	<2.0	27.7	120	704							
	10/7/2011	1.7	<1.0	20	<2.0	21.7	120	705							
	12/8/2011	2.2	<1.0	27	<2.0	29.2	120	699							
	12/18/2012	2.56	<2.0	84.4	<2.0	87.0	NA	NA	17.50	3,643.00	21.3	1.053	0.55	6.67	-384
	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	19.78	3,640.72	23.0	1.169	0.13	6.62	-87.4

Appendix F - Summary of Historical Groundwater Data Through June 2013
Holly Energy - North Monument - Lea County, New Mexico

Monitoring Well	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-7	6/3/2008	0.9	0.6	1.5	1.7	4.7	60	740							
3,662.47	9/23/2008	0.5	<0.5	0.8	1.9	3.2	79	610							
	12/22/2008	<0.5	<0.5	0.8	1	1.8	66	570							
	3/12/2009	<0.5	<0.5	0.9	1.6	2.5	77	630							
	6/23/2009	<1.0	<1.0	<1.0	<2.0	<2.0	81	610							
	9/8/2009	<1.0	<1.0	1.4	<2.0	1.4	81	630							
	12/17/2009	<1.0	<1.0	1	<2.0	1.0	86	625							
	3/9/2010	<1.0	<1.0	<1.0	<1.5	<1.5	88	632							
	6/16/2010	<1.0	<1.0	<1.0	<2.0	<2.0	88	628							
	8/30/2010	1.7	<1.0	1.8	<2.0	3.5	90	623							
	12/6/2010	<1.0	<1.0	<1.0	<2.0	<2.0	81	649							
	3/18/2011	<1.0	<1.0	<1.0	<2.0	<2.0	84	643							
	6/23/2011	<1.0	<1.0	<1.0	<2.0	<2.0	71	629							
	10/7/2011	<1.0	<1.0	<1.0	<2.0	<2.0	81	631							
	12/8/2011	<1.0	<1.0	1.7	<2.0	1.7	92	639							
	12/18/2012	0.24	<2.0	<1.0	<2.0	0.24	NA	NA	18.93	3,643.54	19.9	0.856	0.47	6.77	-400
	6/23/2013	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	19.08	3,643.39	22.4	0.996	0.4	6.79	185.7
NMWQCC Groundwater Standard		**10**	**750**	**750**	**620**		**250**	**1,000**							

Notes:
BOLD (RED) - concentration greater than NMWQCC Groundwater Standard
µg/L = micrograms/Liter
mg/L = milligrams/Liter
ft-bmp = feet - below measuring point
ft-msl = feet - mean sea level
deg-C = degree-Celcius
mS/cm = milliSiemens/ centimeter
mV = millivolts
DO = dissolved Oxygen
ORP = oxygen reduiction potential
< = analyte not detected above reporting limit
BTEX = Benzene, Toluene, Ethylbenzene & Total Xylenes
BTEX analyzed by EPA Method 8260B
NA = not analyzed

APPENDIX G

GROUNDWATER LABORATORY REPORTS

December 27, 2012

Bill Green
Holly Energy Partners
1602 W. Main
Artesisa, NM 88210
TEL: (575) 748-8968
FAX (575) 748-4052

Order No.: 1212194

RE: N. Monument

Dear Bill Green:

DHL Analytical, Inc. received 8 sample(s) on 12/19/2012 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-12-9

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 57974

CHAIN-OF-CUSTODY

CLIENT: CRA
ADDRESS: 14998 W. 6th Ave #800 Golden, CO 80401
PHONE: (303)941-6156 FAX/E-MAIL: BStephenson@craworld.com
DATA REPORTED TO: Brad Stephenson
ADDITIONAL REPORT COPIES TO:

DATE: 12-18-12 PAGE 1 OF 1
PO #: 078802 DHL WORK ORDER #: 1212194
PROJECT LOCATION OR NAME: N. Monument
CLENT PROJECT #: 078802 COLLECTOR:

Authorize 5% surcharge for TRRP Report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐ [METHOD 8021] | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8081 PEST ☐ 608 PEST/PCB ☐ 8082 PCB ☐ 8270 PEST ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ 8330 EXPL ☐ 8270 PERCHLORATE ☐ | METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ ☐ | RCRA ☐ TX11 ☐ ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ ☐ | CHLORIDE ☐ ANIONS ☐ ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
MW-1	01	12-18-12	1235	W	VOA	3	X			X		3	
MW-7	02	12-18-12	1305	W	VOA	3	X			X		3	
MW-6	03	12-18-12	1335	W	VOA	3	X			X		3	
MW-3	04	12-18-12	1420	W	VOA	3	X			X		3	
MW-5	05	12-18-12	1455	W	VOA	3	X			X		3	
~~MW-5D~~		~~12-18-12~~	~~1505~~										05
MW-5D	06	12-18-12	1455	W	VOA	3	X			X		3	
EB	07	12-18-12	1505	W	VOA	3	X			X		3	
Trip	08	—	—	W	VOA	2	X			X		2	
TOTAL													

RELINQUISHED BY: (Signature) Chris DATE/TIME 12-18-12 RECEIVED BY: (Signature) TO FEDEX
RELINQUISHED BY: (Signature) DATE/TIME 12/19/12 1000 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ _____

LABORATORY USE ONLY:
RECEIVING TEMP: 4.8 THERM #: 57
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #: Fedex
☐ APC DELIVERY
☐ HAND DELIVERED

FedEx Express **US Airbill**

FedEx Tracking Number 8606 6136 4185

Form ID No. 0200 **Recipient's Copy**

1 From

Date 12-18-12 [redacted]

Sender's Name Brad Stephenson Phone 303 941-6156

Company CRA

Address 14998 W. 6th Ave. #800 Dept./Floor/Suite/Room

City Golden State CO ZIP 80401

2 Your Internal Billing Reference 078802

3 To

Recipient's Name Jennifer Baker Phone [illegible]

Company [illegible] Inc

Recipient's Address [illegible] Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City [illegible] State TX ZIP [illegible]

L

8606 6136 4185

4a Express Package Service *Packages up to 150 lbs.*

- ☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate. *To most locations.

4b Express Freight Service *Packages over 150 lbs.*

- ☐ FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging

☐ FedEx Envelope* ☐ FedEx Pak* (Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.) ☐ FedEx Box ☐ FedEx Tube ☒ Other

* Declared value limit $500.

6 Special Handling

Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- ☐ HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. ☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

☒ Sender (Acct. No. in Section 1 will be billed.) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check ☐ Obtain Recip. Acct. No.

[redacted]

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	20	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 *NEW* Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- ☒ No Signature Required — Package may be left without obtaining a signature for delivery.
- ☐ Direct Signature — Anyone at recipient's address may sign for delivery. *Fee applies.*
- ☐ Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

520

Rev. Date 8/05•Part #158281•©1994–2005 FedEx•PRINTED IN U.S.A. SRY

fedex.com 1.800.GoFedEx 1.800.463.3339

DHL Analytical, Inc.

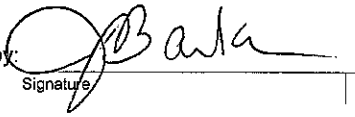
Sample Receipt Checklist

Client Name Holly Energy Partners

Date Received: 12/19/2012

Work Order Number 1212194

Received by JB

Checklist completed by:  12/19/2012
Signature / Date

Reviewed by SS 12/19/2012
Initials / Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4.8 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT: Holly Energy Partners
Project: N. Monument
Lab Order: 1212194

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-1
Project:	N. Monument	**Lab ID:**	1212194-01
Project No:	078802	**Collection Date:**	12/18/12 12:35 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 12:10 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 12:10 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 12:10 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 12:10 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 12:10 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	12/21/12 12:10 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	12/21/12 12:10 PM
Surr: Dibromofluoromethane	106	0	85-115		%REC	1	12/21/12 12:10 PM
Surr: Toluene-d8	103	0	81-120		%REC	1	12/21/12 12:10 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-7
Project:	N. Monument	**Lab ID:**	1212194-02
Project No:	078802	**Collection Date:**	12/18/12 01:05 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.000240	0.000200	0.00100	J	mg/L	1	12/21/12 12:36 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 12:36 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 12:36 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 12:36 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 12:36 PM
Surr: 1,2-Dichloroethane-d4	103	0	72-119		%REC	1	12/21/12 12:36 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	12/21/12 12:36 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	12/21/12 12:36 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	12/21/12 12:36 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-6
Project:	N. Monument	**Lab ID:**	1212194-03
Project No:	078802	**Collection Date:**	12/18/12 01:35 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00256	0.000200	0.00100		mg/L	1	12/21/12 01:02 PM
Ethylbenzene	0.0844	0.000300	0.00100		mg/L	1	12/21/12 01:02 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:02 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 01:02 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:02 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	12/21/12 01:02 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	12/21/12 01:02 PM
Surr: Dibromofluoromethane	106	0	85-115		%REC	1	12/21/12 01:02 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	12/21/12 01:02 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-3
Project:	N. Monument	**Lab ID:**	1212194-04
Project No:	078802	**Collection Date:**	12/18/12 02:20 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 01:27 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 01:27 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:27 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 01:27 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:27 PM
Surr: 1,2-Dichloroethane-d4	99.3	0	72-119		%REC	1	12/21/12 01:27 PM
Surr: 4-Bromofluorobenzene	106	0	76-119		%REC	1	12/21/12 01:27 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	12/21/12 01:27 PM
Surr: Toluene-d8	103	0	81-120		%REC	1	12/21/12 01:27 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-5
Project:	N. Monument	**Lab ID:**	1212194-05
Project No:	078802	**Collection Date:**	12/18/12 02:55 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 01:53 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 01:53 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:53 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 01:53 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 01:53 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	12/21/12 01:53 PM
Surr: 4-Bromofluorobenzene	104	0	76-119		%REC	1	12/21/12 01:53 PM
Surr: Dibromofluoromethane	106	0	85-115		%REC	1	12/21/12 01:53 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	12/21/12 01:53 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-5D
Project:	N. Monument	**Lab ID:**	1212194-06
Project No:	078802	**Collection Date:**	12/18/12 02:55 PM
Lab Order:	1212194	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 02:17 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 02:17 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 02:17 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 02:17 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 02:17 PM
Surr: 1,2-Dichloroethane-d4	101	0	72-119		%REC	1	12/21/12 02:17 PM
Surr: 4-Bromofluorobenzene	106	0	76-119		%REC	1	12/21/12 02:17 PM
Surr: Dibromofluoromethane	104	0	85-115		%REC	1	12/21/12 02:17 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	12/21/12 02:17 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	EB
Project:	N. Monument	**Lab ID:**	1212194-07
Project No:	078802	**Collection Date:**	12/18/12 03:05 PM
Lab Order:	1212194	**Matrix:**	EQUIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 02:42 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 02:42 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 02:42 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 02:42 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 02:42 PM
Surr: 1,2-Dichloroethane-d4	101	0	72-119		%REC	1	12/21/12 02:42 PM
Surr: 4-Bromofluorobenzene	107	0	76-119		%REC	1	12/21/12 02:42 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	12/21/12 02:42 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	12/21/12 02:42 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	Trip
Project:	N. Monument	**Lab ID:**	1212194-08
Project No:	078802	**Collection Date:**	12/18/12
Lab Order:	1212194	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	12/21/12 03:08 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	12/21/12 03:08 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	12/21/12 03:08 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	12/21/12 03:08 PM
Toluene	ND	0.000600	0.00200		mg/L	1	12/21/12 03:08 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	12/21/12 03:08 PM
Surr: 4-Bromofluorobenzene	106	0	76-119		%REC	1	12/21/12 03:08 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	12/21/12 03:08 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	12/21/12 03:08 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *27-Dec-12*

CLIENT: Holly Energy Partners
Work Order: 1212194
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_121221B

The QC data in batch 55291 applies to the following samples: 1212194-01A, 1212194-02A, 1212194-03A, 1212194-04A, 1212194-05A, 1212194-06A, 1212194-07A, 1212194-08A

Sample ID: **LCS-55291** Batch ID: **55291** TestNo: **SW8260C** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS5_121221B** Analysis Date: **12/21/2012 10:29:00 A** Prep Date: **12/21/2012**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0257	0.00100	0.0232	0	111	81	122			
Ethylbenzene	0.0247	0.00100	0.0232	0	107	80	120			
m,p-Xylene	0.0507	0.00200	0.0464	0	109	80	120			
o-Xylene	0.0234	0.00100	0.0232	0	101	80	120			
Toluene	0.0241	0.00200	0.0232	0	104	80	120			
Surr: 1,2-Dichloroethane-d4	201		200.0		101	72	119			
Surr: 4-Bromofluorobenzene	195		200.0		97.4	76	119			
Surr: Dibromofluoromethane	211		200.0		105	85	115			
Surr: Toluene-d8	200		200.0		100	81	120			

Sample ID: **MB-55291** Batch ID: **55291** TestNo: **SW8260C** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS5_121221B** Analysis Date: **12/21/2012 10:56:00 A** Prep Date: **12/21/2012**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Ethylbenzene	ND	0.00100								
m,p-Xylene	ND	0.00200								
o-Xylene	ND	0.00100								
Toluene	ND	0.00200								
Surr: 1,2-Dichloroethane-d4	202		200.0		101	72	119			
Surr: 4-Bromofluorobenzene	208		200.0		104	76	119			
Surr: Dibromofluoromethane	211		200.0		105	85	115			
Surr: Toluene-d8	203		200.0		101	81	120			

Sample ID: **1212195-01AMS** Batch ID: **55291** TestNo: **SW8260C** Units: **mg/L**
SampType: **MS** Run ID: **GCMS5_121221B** Analysis Date: **12/21/2012 6:27:00 PM** Prep Date: **12/21/2012**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0261	0.00100	0.0232	0.000600	110	81	120			
Ethylbenzene	0.0248	0.00100	0.0232	0	107	80	120			
m,p-Xylene	0.0499	0.00200	0.0464	0	108	80	120			
o-Xylene	0.0231	0.00100	0.0232	0	99.7	80	120			
Toluene	0.0258	0.00200	0.0232	0.00194	103	80	120			
Surr: 1,2-Dichloroethane-d4	204		200.0		102	72	119			
Surr: 4-Bromofluorobenzene	201		200.0		101	76	119			
Surr: Dibromofluoromethane	210		200.0		105	85	115			
Surr: Toluene-d8	203		200.0		101	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1212194
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_121221B

Sample ID: **1212195-01AMSD** Batch ID: **55291** TestNo: **SW8260C** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS5_121221B** Analysis Date: **12/21/2012 6:53:00 PM** Prep Date: **12/21/2012**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0253	0.00100	0.0232	0.000600	107	81	120	2.88	20	
Ethylbenzene	0.0241	0.00100	0.0232	0	104	80	120	2.86	20	
m,p-Xylene	0.0490	0.00200	0.0464	0	106	80	120	1.78	20	
o-Xylene	0.0230	0.00100	0.0232	0	99.1	80	120	0.607	20	
Toluene	0.0253	0.00200	0.0232	0.00194	101	80	120	1.84	20	
Surr: 1,2-Dichloroethane-d4	201		200.0		101	72	119	0	0	
Surr: 4-Bromofluorobenzene	204		200.0		102	76	119	0	0	
Surr: Dibromofluoromethane	209		200.0		104	85	115	0	0	
Surr: Toluene-d8	201		200.0		101	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

July 02, 2013

Bill Green
Holly Energy Partners
1602 W. Main
Artesisa, NM 88210
TEL: (575) 748-8968
FAX (575) 748-4052

Order No.: 1306226

RE: N. Monument (Holly Energy Partners)

Dear Bill Green:

DHL Analytical, Inc. received 7 sample(s) on 6/26/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-11

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 60039

CHAIN-OF-CUSTODY

CLIENT: CRA
ADDRESS: 14998 W 6th Ave, #800, Golden, CO 80401
PHONE: 720.974.0935 FAX/E-MAIL: bstephenson@crawork.com
DATA REPORTED TO: Brad Stephenson
ADDITIONAL REPORT COPIES TO: Bill Green & jcovey@crawork.com

DATE: 6.23.13 PAGE 1 OF 1
PO #: DHL WORK ORDER #: 1306224
PROJECT LOCATION OR NAME: N. Monument (Holly Energy Partners)
CLENT PROJECT #: 078802 COLLECTOR: J. Covey

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐	VOC 8260 ☒ VOC 624 ☐ VOC 8260/5035 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐	8081 PEST ☐ 608 PEST/PCB ☐ 8270 PEST ☐	8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐	8321 HERB ☐ 8330 EXPL ☐ PERCHLORATE ☐	METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐	RCRA ☐ TX11 ☐ ____ ☐	PH ☐ HEX CHROM ☐ ALKALINITY ☐	CHLORIDE ☐ ANIONS ____ ☐	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCI ☐ RCRA 8 ☐ TX-1 ☐ Pb ☐	TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	FIELD NOTES
MW-1	01	6.23.13	1235	W	40mL VOA	3	X			X					X													BTEX only 8260
MW-7	02	↓	1330	↓	↓	↓	↓			↓					↓													↓
MW-6	03		1425																									
MW-3	04		1505																									
MW-5	05	↓	1550	↓	↓	↓	↓			↓					↓													↓
~~DUP~~																												
MW-1-DUP	06	6.23.13	~~1240~~ 1235	W	40mL VOA	3	X			X					X													BTEX only 8260
Trip Blank	07	↓	-	↓	↓	2	↓			↓					↓													↓
TOTAL																												

RELINQUISHED BY: (Signature) DATE/TIME 6.25.13/1720 RECEIVED BY: (Signature) FEDEX
RELINQUISHED BY: (Signature) DATE/TIME 6/26/13 0830 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☐
OTHER ☐ _____

LABORATORY USE ONLY:
RECEIVING TEMP: 2.9 THERM #: 57
CUSTODY SEALS: ☐ BROKEN ☒ INTACT ☐ NOT USED
☒ CARRIER BILL #: Fed-Ex
☐ APC DELIVERY
☐ HAND DELIVERED

ORIGIN ID:HOBA

UNITED STATES US

SHIP DATE: 25JUN13
ACTWGT: 11.8 LB
CAD: /POS1400
DIMS: 17x15x12 IN

BILL RECIPIENT

TO RECIEVING
DHL ANALYTICAL
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: DEPT:

FedEx
Express

E

3 of 3
MPS# 0681 7957 9305 1338
Mstr# 8017 7767 6180 0200

WED - 26 JUN 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US AUS

CUSTODY SEAL
DATE 6.25.13
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name **Holly Energy Partners** Date Received: **6/26/2013**

Work Order Number **1306226** Received by **JB**

Checklist completed by: _____ 6/26/2013 Reviewed by _____ 6/26/2013
Signature Date Initials Date

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	**2.9** °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT: Holly Energy Partners
Project: N. Monument (Holly Energy Partners)
Lab Order: 1306226

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-1
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-01
Project No:	078802	**Collection Date:**	06/23/13 12:35 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 06:39 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 06:39 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 06:39 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 06:39 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 06:39 PM
Surr: 1,2-Dichloroethane-d4	99.7	0	72-119		%REC	1	06/27/13 06:39 PM
Surr: 4-Bromofluorobenzene	103	0	76-119		%REC	1	06/27/13 06:39 PM
Surr: Dibromofluoromethane	104	0	85-115		%REC	1	06/27/13 06:39 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	06/27/13 06:39 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-7
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-02
Project No:	078802	**Collection Date:**	06/23/13 01:30 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 07:04 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 07:04 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:04 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 07:04 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:04 PM
Surr: 1,2-Dichloroethane-d4	97.6	0	72-119		%REC	1	06/27/13 07:04 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	06/27/13 07:04 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	06/27/13 07:04 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	06/27/13 07:04 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-6
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-03
Project No:	078802	**Collection Date:**	06/23/13 02:25 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00111	0.000200	0.00100		mg/L	1	06/27/13 07:28 PM
Ethylbenzene	0.0325	0.000300	0.00100		mg/L	1	06/27/13 07:28 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:28 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 07:28 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:28 PM
Surr: 1,2-Dichloroethane-d4	96.7	0	72-119		%REC	1	06/27/13 07:28 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	06/27/13 07:28 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	06/27/13 07:28 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	06/27/13 07:28 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-3
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-04
Project No:	078802	**Collection Date:**	06/23/13 03:05 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 07:54 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 07:54 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:54 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 07:54 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 07:54 PM
Surr: 1,2-Dichloroethane-d4	98.6	0	72-119		%REC	1	06/27/13 07:54 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	06/27/13 07:54 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	06/27/13 07:54 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	06/27/13 07:54 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-5
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-05
Project No:	078802	**Collection Date:**	06/23/13 03:50 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 08:19 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 08:19 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 08:19 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 08:19 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 08:19 PM
Surr: 1,2-Dichloroethane-d4	99.5	0	72-119		%REC	1	06/27/13 08:19 PM
Surr: 4-Bromofluorobenzene	106	0	76-119		%REC	1	06/27/13 08:19 PM
Surr: Dibromofluoromethane	104	0	85-115		%REC	1	06/27/13 08:19 PM
Surr: Toluene-d8	99.6	0	81-120		%REC	1	06/27/13 08:19 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MW-1-DUP
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-06
Project No:	078802	**Collection Date:**	06/23/13 12:40 PM
Lab Order:	1306226	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 08:44 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 08:44 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 08:44 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 08:44 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 08:44 PM
Surr: 1,2-Dichloroethane-d4	99.7	0	72-119		%REC	1	06/27/13 08:44 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	06/27/13 08:44 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	06/27/13 08:44 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	06/27/13 08:44 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *02-Jul-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	TRIP BLANK
Project:	N. Monument (Holly Energy Partners)	**Lab ID:**	1306226-07
Project No:	078802	**Collection Date:**	06/23/13
Lab Order:	1306226	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	06/27/13 09:09 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	06/27/13 09:09 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	06/27/13 09:09 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	06/27/13 09:09 PM
Toluene	ND	0.000600	0.00200		mg/L	1	06/27/13 09:09 PM
Surr: 1,2-Dichloroethane-d4	99.1	0	72-119		%REC	1	06/27/13 09:09 PM
Surr: 4-Bromofluorobenzene	104	0	76-119		%REC	1	06/27/13 09:09 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	06/27/13 09:09 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	06/27/13 09:09 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: Holly Energy Partners
Work Order: 1306226
Project: N. Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_130627A

The QC data in batch 58131 applies to the following samples: 1306226-01A, 1306226-02A, 1306226-03A, 1306226-04A, 1306226-05A, 1306226-06A, 1306226-07A

Sample ID: **LCS-58131** Batch ID: **58131** TestNo: **SW8260C** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS5_130627A** Analysis Date: **6/27/2013 2:02:00 PM** Prep Date: **6/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0261	0.00100	0.0232	0	113	81	122			
Ethylbenzene	0.0246	0.00100	0.0232	0	106	80	120			
m,p-Xylene	0.0495	0.00200	0.0464	0	107	80	120			
o-Xylene	0.0249	0.00100	0.0232	0	107	80	120			
Toluene	0.0259	0.00200	0.0232	0	112	80	120			
Surr: 1,2-Dichloroethane-d4	197		200.0		98.7	72	119			
Surr: 4-Bromofluorobenzene	199		200.0		99.6	76	119			
Surr: Dibromofluoromethane	203		200.0		102	85	115			
Surr: Toluene-d8	197		200.0		98.4	81	120			

Sample ID: **MB-58131** Batch ID: **58131** TestNo: **SW8260C** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS5_130627A** Analysis Date: **6/27/2013 2:28:00 PM** Prep Date: **6/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Ethylbenzene	ND	0.00100								
m,p-Xylene	ND	0.00200								
o-Xylene	ND	0.00100								
Toluene	ND	0.00200								
Surr: 1,2-Dichloroethane-d4	196		200.0		98.0	72	119			
Surr: 4-Bromofluorobenzene	206		200.0		103	76	119			
Surr: Dibromofluoromethane	203		200.0		102	85	115			
Surr: Toluene-d8	201		200.0		100	81	120			

Sample ID: **1306233-01AMS** Batch ID: **58131** TestNo: **SW8260C** Units: **mg/L**
SampType: **MS** Run ID: **GCMS5_130627A** Analysis Date: **6/27/2013 5:49:00 PM** Prep Date: **6/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0257	0.00100	0.0232	0	111	81	122			
Ethylbenzene	0.0243	0.00100	0.0232	0	105	80	120			
m,p-Xylene	0.0496	0.00200	0.0464	0	107	80	120			
o-Xylene	0.0244	0.00100	0.0232	0	105	80	120			
Toluene	0.0258	0.00200	0.0232	0	111	80	120			
Surr: 1,2-Dichloroethane-d4	200		200.0		100	72	119			
Surr: 4-Bromofluorobenzene	194		200.0		96.9	76	119			
Surr: Dibromofluoromethane	203		200.0		102	85	115			
Surr: Toluene-d8	203		200.0		102	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1306226
Project: N. Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_130627A

Sample ID: **1306233-01AMSD** Batch ID: **58131** TestNo: **SW8260C** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS5_130627A** Analysis Date: **6/27/2013 6:13:00 PM** Prep Date: **6/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0259	0.00100	0.0232	0	112	81	120	0.620	20	
Ethylbenzene	0.0241	0.00100	0.0232	0	104	80	120	0.702	20	
m,p-Xylene	0.0493	0.00200	0.0464	0	106	80	120	0.748	20	
o-Xylene	0.0244	0.00100	0.0232	0	105	80	120	0.205	20	
Toluene	0.0257	0.00200	0.0232	0	111	80	120	0.272	20	
Surr: 1,2-Dichloroethane-d4	199		200.0		99.6	72	119	0	0	
Surr: 4-Bromofluorobenzene	197		200.0		98.6	76	119	0	0	
Surr: Dibromofluoromethane	202		200.0		101	85	115	0	0	
Surr: Toluene-d8	200		200.0		100	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

APPENDIX H

WELL CONSTRUCTION SUMMARY AND BORING LOGS

Recovery Well Construction Information

Recovery Well Number	Well Depth (ft-BGS)	Depth to Water (ft-BGS)	Well Screen Interval (ft-BGS)
MRW-1	35	16.21	10-30
MRW-2	35	19.20	10-30
MRW-3	35	18.90	10-30
MRW-4	35	18.65	10-30
MRW-5	35	18.60	10-30
MRW-6	33	17.62	8-28
MRW-7	33	17.29	8-28
MRW-8	31	16.32	6-26
MRW-9	32	16.59	7-27
MRW-10	32	16.28	7-27
MRW-11	37	22.87	12-32
MRW-12	37	23.09	12-32
MRW-13	38	23.54	13-33
MRW-14	38	23.10	13-33

February 2013 Counstruction

All Recovery Wells were constructed using 4" Sch. 40 PVC

All well screens slot size was 0.020"

ft-BGS = feet Below Ground Surface

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-1** | Project: **North Monument (Holly Energy)**

Date: **2 / 19 / 2013** | Project Number: **078802**

Logged by: **Justin Covey** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **6 to 8'** | Grout Interval: **3 to 6'**

Filter Pack Size: **10/20 sand** | Interval: **8 to 35'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **21.7' bgs**

Casing Type: **Sch. 40** | Diameter: **1 & 4 in.** | Interval: **10 to 0'** | DTW: **19.21' bgs**

Screen Type: **Sch. 40** | Slot: **20** | Diameter: **1 & 4 in.** | Interval: **10 to 35'** | Well Depth: **35' bgs** | Total depth: **37' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
	ML	dry	5	10YR 5/3						**SILT** – (0-0.75') – medium stiff, low plasticity, dry, brown, trace caliche & clay		
1								12"				
		dry	< 5	10YR 8/1	1	N				**Caliche** – (0.75 – 12') – dense, calicium carbonate & chert, white		
2												
3								12"				
					1.5	N						
4												
5								5"				
					1.2	N						
6												
7								4"				
					1.2	N						
8												
9								13"				
					1.2	N						
10												
11								Cut.				
					0.9	N						
12												
	SM	dry	<5	10YR 8/2						**Silty SAND** – (12 – 16') – dense, fine to medium grained, dry, very pale brown, trace cementation, trace caliche gravel		
13								16"				
					0.6	N						
14												
15								11"				
					1.5	N						
16	SM	dry	<5	10YR 8/1			Sample (MRW-1/18-20 @1355)			**Caliche** – (15.5 - 18') - dense, calcium carbonate, chert, white		
17								Cut.				
					31.1	N						
18												
	ML	moist	10	10YR 8/1						**Clayey SILT** - (18 – 20') medium stiff, low plasticity, moist, reddish brown, trace caliche & fine to medium sand, odor		
19					372	N		14"				
20												

top of screen @ ~7' bgs

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-1**	Project: **North Monument (Holly Energy)**
	Date: **2 / 19 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**	
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**	Depth water Encountered during
Casing Type: **Sch. 40**		Diameter: **1 & 4 in.** Interval: **10 to 0'**	DTW: **19.21' bgs**	drilling: **21.7' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **10 to 30'**	Well Depth: **35' bgs**	Total depth: **37' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20			5	10YR 8/2	406			12"		- @ 20' some caliche and mottling, pinkish white		
21		Wet 21.7	< 5			N				- @ 21.7 becomes wet		
22												
23				5YR 8/2				12"		- @ 22.5' becomes pinkish white		
24						N						
25								5"				
26						N						
27				5YR 5/3				4"		- @ 26' trace fine grained sand and becomes reddish brown		
28						N						
29								13"				
30						N				- @ 30' some fine grained sand		
31								Cut.				
32						N						
33								16"		- @ 32' trace fine to medium gravel		
34						N						
35	GM	wet	<5	5YR 5/3				11"		Silty GRAVEL (34') – fine to medium grained, poorly graded, wet, reddish brown		5' SUMP
36						N						TD = 35'
37										Total Depth drilled – 36 feet		
38												
39												
40												

bottom of acreen @ 30' bgs

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-2** | Project: **North Monument (Holly Energy)**

Date: **2 / 19 / 2013** | Project Number: **078802**

Logged by: **Justin Covey** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **6 to 8'** | Grout Interval: **3 to 6'**

Filter Pack Size: **10/20 sand** | Interval: **8 to 35'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **21.5'**

Casing Type: **Sch. 40** | Diameter: **1 & 4 in.** | Interval: **10 to 0'** | DTW: **19.20' bgs**

Screen Type: **Sch. 40** | Slot: **20** | Diameter: **1 & 4 in.** | Interval: **10 to 30'** | Well Depth:**35'bgs** | Total depth: **36' bgs**

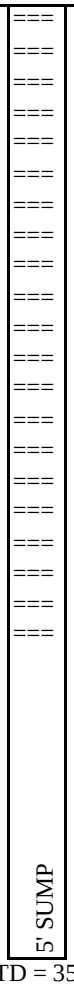
Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	5	5YR 6/2	0.5	N	Sample (MRW-2/18-20 @1120)	20”		**SILT** – (0 - 2’) – medium stiff, low plasticity, dry, pinkish gray, trace caliche & clay		
2												
3		dry	< 5	5YR 8/1	1.5	N		Cut.		**Caliche** – (2 – 6’) – calicium carbonate, white		
4												
5					1.1	N		4”				
6												
7	SM	dry	< 5	5YR 8/3	1	N		16”		**Silty SAND** - (6 – 10’) – dense, fine grained, poorly graded, dry, pink, trace gravel		
8												
9					2	N		12”				
10												
11	SP	dry	< 5	5YR 8/1	0.6	N		15”		**SAND** – (10 – 14.5’) – medium dense, fine to medium grained, dense, dry, white, some chert		top of screen @ ~10' bgs
12												
13					1.5	N		10”				
14												
15	SM	dry	<5	5YR 7/3	1.7	N		13”		**Silty SAND** – (14.5 – 16’) – medium dense, fine to medium grained, poorly graded, moist, pink, trace clay, trace odor		
16												
17								10”				
18		dry	<5	5YR 8/1	127	N				**Caliche** – calcium carbonate, chert, white		
19								5”				
20					387	N						

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-2**	Project: **North Monument (Holly Energy)**
	Date: **2 / 19 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**	
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**		Diameter: **1 & 4 in.** Interval: **10 to 0'**	DTW: **19.20' bgs**	during drilling: **21.5'**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **10 to 30'**	Well Depth:**35'bgs**	Total depth: **36' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	ML	v.	25	5YR	720	N						
21		moist		5/3				21"		**Clayey SILT** (20 – 22') – medium stiff, low plasticity, very moist reddish brown, some caliche, odor		
									▼			
22		Wet								**SILT** (22 – 30') – medium stiff, low plasticity, wet, reddish brown, trace caliche & clay		
	ML	21.7	5	5YR		N						
23				5/3				23"				
24												
						N						
25								Cut.				
26												
						N				- @ 26' some fine to medium grained sand		
27								Cut.				
28												
						N						
29								Cut.				
30												
	SM	wet	< 5	5YR		N				**Silty SAND** (30') – fine grained, poorly graded, loose, wet, reddish brown, trace caliche		
31				5/3				Cut.				
32												
						N						
33								Cut.				
34												
	GM					N						
35								Cut.				
36												
										Total Depth drilled – 36 feet		
37												
38												
39												
40												



TD = 35'

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-3** | Project: **North Monument (Holly Energy)**

Date: **2 / 19 / 2013** | Project Number: **078802**

Logged by: **Justin Covey** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **6 to 8'** | Grout Interval: **3 to 6'**

Filter Pack Size: **10/20 sand** | Interval: **8 to 35'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **21.5'**

Casing Type: **Sch. 40** | Diameter: **1 & 4 in.** | Interval: **10 to 0'** | DTW: **18.90' bgs**

Screen Type: **Sch. 40** | Slot: **20** | Diameter: **1 & 4 in.** | Interval: **10 to 30'** | Well Depth:**35'bgs** | Total depth: **36' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
	ML	dry	< 5	5YR 4/3						**SILT** – (0 – 2') – medium stiff, non-plastic, dry, reddish brown, trace roots		
1								20"				
					0	N						
2												
	SM	dry	< 5	5YR 8/2						**Caliche** – (2 – 15') – Silty SAND – dense, fine grained, poorly sorted, dry, pinkish white		
3								10"				
					0.4	N						
4												
										- @ ~4' some chert present		
5								12"				
					0.8	N						
6												
7								10"				
					1.2	N						
8												
9								Cut.				
					0.7	N						
10												
11								Cut.				
					1.4	N						
12												
	SM	dry	< 5	5YR 8/3						- @ ~12' becomes fine to medium grained and cemented, pink, trace silt		
13								10"				
					1	N						
14												
15								19"				
	ML	dry	<5	5YR 7/4	1.5	N				**SILT** – (15 – 18') – medium stiff, low plasticity, dry, pink, trace clay & fine grained sand, trace odor		
16												
17					16.9	N		8"				
18												
	SM	dry	<5	5YR 8/1						**Caliche** – (18 – 22') – calicium carbonate & chert, white		
19					30.4	N		5"				
20												

top of screen @ ~10' bgs

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-3**	Project: **North Monument (Holly Energy)**
	Date: **2 / 19 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**	
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**		Diameter: **1 & 4 in.** Interval: **10 to 0'**	DTW: **18.90' bgs**	during drilling: **21.5'**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **10 to 30'**	Well Depth:**35'bgs**	Total depth: **36' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	ML	moist	25	5YR						- @ ~20' Interbedded silt and caliche as above,		
21				5/3	148	N	Sample (MRW-3/20-22 @ 0825)	6”		odor		
		wet										
22		21.5'										
	ML		5	5YR						**SILT -** (22 – 24’) – soft, low plasticity, wet, pinkish		
23				7/2		N		8”		gray, some fine sand		
24												
	SM	wet		5YR						**Silty SAND -** (24 – 36’) – loose, medium to coarse		
25				7/2		N		20”		grained, well graded, wet, pinkish gray		
26												
										- @ 26’ some fine to medium grained sand		
27						N		Cut.				
28												
29						N		Cut.				
30												
31						N		Cut.				
32												
33								Cut.				
34												
35								Cut.				
36												
										Total Depth drilled – 36 feet		
37												
38												
39												
40												

5' SUMP

bottom of acreen @ 30' bgs

TD = 35'

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-4**	Project: **North Monument (Holly Energy)**
Date: **2 / 15 / 2013**	Project Number: **078802**
Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **10 to 0'**	DTW: **18.65' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **10 to 30'**	Well Depth: **35'bgs**

Depth water Encountered during drilling: **NA**

Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SW	dry	< 5	7.5YR 3/3				17"		**Silty SAND** – (0 – 1') – loose, fine grained, poorly sorted, dry, dark brown		
2	SM	dry	< 5	7.5YR 8/2	1.7	N				**Caliche** – (1 – 2') – dense, cemented fine grained sand, pinkish white angular - @ 2' trace chert		
3								10"				
4					8.8	N						
5								5"				
6					4.1	N						
7								7"				
8					4.4	N						
9								7"				
10					47.8	N						
11								5"				
12					21.4	N						
13	SW	dry	< 5	5YR 8/3				0"		**Caliche** – (12 – 15') – cemented fine to medium grained sand, moist, pink, trace silt - Interbeded silt and sand caliche layers, hole is collapsing and will drill down to depth to install MW-4 so that the boring is not lost.		
14					28.8	N						
15												
16												
17												
18												
19												
20												

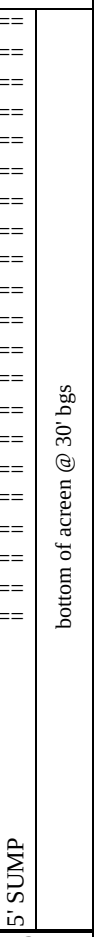
top of screen @ ~10' bgs

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-4**	Project: **North Monument (Holly Energy)**
	Date: **2 / 15 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**	
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**		Diameter: **1 & 4 in.** Interval: **10 to 0'**	DTW: **18.65' bgs**	during drilling: **NA**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **10 to 30'**	Well Depth: **35'bgs**	Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												5' SUMP
										Total Depth drilled – 35 feet		TD = 35'
36												
37												
38												
39												
40												



LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-5** | Project: **North Monument (Holly Energy)**

Date: **2 / 15 / 2013** | Project Number: **078802**

Logged by: **Dennis McCormick** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **6 to 8'** | Grout Interval: **3 to 6'**

Filter Pack Size: **10/20 sand** Interval: **8 to 35'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **20'**

Casing Type: **Sch. 40** Diameter: **1 & 4 in.** Interval: **10 to 0'** | DTW: **18.60' bgs**

Screen Type: **Sch. 40** Slot: **20** Diameter: **1 & 4 in.** Interval: **10 to 30'** | Well Depth: **35'bgs** | Total depth: **36' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	< 5	5YR 4/2				20"		**SILT** – (0 – 1') – loose, low plasticity, dry, brown, trace roots & caliche		
2	SM	dry	< 5	7.5YR 8/2	1.1	N				**Caliche** – (1 – 12') – cemented silty fine grained sand, dry, pinkish white, angular		
3								5"				
4					1.6	N						
5								7"				
6					3.6	N						
7								17"				
8					5.8	N						
9								14"				
10					5.3	N						
11								14"				
12					3.1	N						
13	SW	dry	< 5	5YR 8/3				14"		**Caliche** – (12 – 20') – cemented fine to medium grained sand, dry, pinkish white, trace silt		
14					21.5	N				- @ 13' interbedded silt layers		
15								3"		- @ 14' no silt layers		
16					284	N				- @ 15.5' odor		
17								3"				
18					135	N						
19								3"				
20					445	N				- @ 19' becomes cemented Silty SAND		

Sample (MRW-5/18-20 @ 0940)

top of screen @ ~10' bgs

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-5**	Project: **North Monument (Holly Energy)**
	Date: **2 / 15 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **6 to 8'**	Grout Interval: **3 to 6'**	
Filter Pack Size: **10/20 sand**		Interval: **8 to 35'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **20'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **10 to 0'**	DTW: **18.60' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **10 to 30'**	Well Depth: **35'bgs**	Total depth: **36' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20									▼			
	ML	moist	5	7.5YR 4/4	124	N		6”		**Silty SAND** – (20 – 24’) – loose, fine grained, wet, dark brown, trace Clay, odor		
21												
22												
23					110	N		8”				
24												
25						N		20”				
26												
27						N		Cut.				
28												
29						N		Cut.				
30												
31												
32												
33												
34												
35												
36												5' SUMP TD = 35' bottom of acreen @ 30' bgs
37										Total Depth drilled – 36 feet		
38												
39												
40												

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-6**	Project: **North Monument (Holly Energy)**
Date: **2 / 14 / 2013**	Project Number: **078802**
Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **4 to 6'**	Grout Interval: **4 to 3'**
Filter Pack Size: **10/20 sand**		Interval: **6 to 33'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **8 to 0'**	DTW: **17.62' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **8 to 28'**	Well Depth: **33'bgs**

Depth water Encountered during drilling: **23'**

Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SM	dry	< 5	7.5YR 8/2				10"		**SILT** – (0 – 1') – loose, low plasticity, dry, brown, trace roots & caliche		
2	SM	dry	< 5	7.5YR 8/2	9	N				**Caliche** – (1 – 12') – cemented silty fine grained sand, dry, pinkish white, angular		
3								3"				
4					7.5	N						
5								2"				
6					2.7	N						
7								5"				
8					19.5	N						
9								14"				
10					138	N						
11								12"				
12					114	N						
13							Sample (MRW-6/14-16 @1540)	12"		- @ 12' odor present		
14					87.8	N						
15								Cut.				
16					491	N						
17								Cut.				
18					423	N						
19								Cut.				
20				7.5YR 7/3	385	N				- @ ~19' becomes pink		

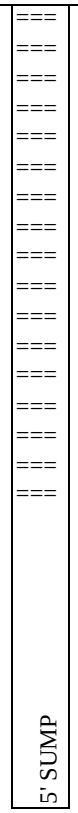
top of screen @ ~8' bgs

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-6**	Project: **North Monument (Holly Energy)**
	Date: **2 / 14 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **4 to 6'**	Grout Interval: **4 to 3'**	
Filter Pack Size: **10/20 sand**		Interval: **6 to 33'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **23'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **8 to 0'**	DTW: **17.62' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **8 to 28'**	Well Depth: **33'bgs**	Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20							Sample (MRW-3/20-22 @ 0825)					
	ML	moist	5	7.5YR 4/4	414	N		6”		- @ ~20’ – becomes moist & trace odor		
21												
22												
23		wet 23'			350	N		8”		- @ ~23’ – becomes wet		
24												
25						N		20”				
26												
27						N		Cut.				
28												
29						N		Cut.				
30												
31												
32												
33												
34												
35												
36										Total Depth drilled – 35 feet		
37												
38												
39												
40												



LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-7**	Project: **North Monument (Holly Energy)**
Date: **2 / 14 / 2013**	Project Number: **078802**
Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **4 to 6'**	Grout Interval: **3 to 4'**
Filter Pack Size: **10/20 sand**		Interval: **6 to 33'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **8 to 0'**	DTW: **17.29' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **8 to 28'**	Well Depth: **33'bgs**

Depth water Encountered during drilling: **21.5'**

Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SM	dry	< 5	7.5YR 8/1				14"		**Silty SAND** – (0 – 1') – loose, fine grained, dry, white, trace fine gravel, angular & caliche		
2	SM	dry	< 5	7.5YR 8/1	4.6	N				**Caliche** – (1 – 8') – dense, cemented silty fine grained sand, white, angular		
3								Cut.				
4					8.3	N						
5								Cut.				
6					5.6	N						
7								Cut.				
8					5.8	N						
9										- Very hard, no sample recovery (8 – 16')		
10						N						
11												
12						N						
13												
14						N						
15												
16						N						
17	SM	dry	5	7.5YR 7/2				Cut.		**Caliche** - (16 – 24) – Silty SAND – v. dense, cemented fined grained sand, dry, pinkish gray		
18					216	N						
19								Cut.		- @ ~18' slight odor		
20					259	N						

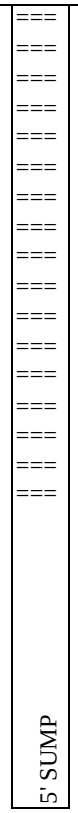
top of screen @ ~8' bgs

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-7**	Project: **North Monument (Holly Energy)**
	Date: **2 / 14 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **4 to 6'**	Grout Interval: **3 to 4'**	
Filter Pack Size: **10/20 sand**		Interval: **6 to 33'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **8 to 0'**	DTW: **17.29' bgs**	during drilling: **21.5'**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **8 to 28'**	Well Depth: **33'bgs**	Total depth: **35' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	ML	moist	5	7.5YR 4/4		N	Sample (MRW07@22-24 @1300)			- @ ~20' – becomes moist		
21					807			Cut.				
		wet										
22		21.5'								- @ ~21.5' – becomes wet		
23					935	N		Cut.				
24												
25						N		Cut.				
26												
27						N		Cut.				
28												
29						N		Cut.				
30												
31												
32												
33												
34												
35												
										Total Depth drilled – 35 feet		
36												
37												
38												
39												
40												



LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-8**	Project: **North Monument (Holly Energy)**
Date: **2 / 14 / 2013**	Project Number: **078802**
Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **3 to 5'**	Grout Interval: **to**
Filter Pack Size: **10/20 sand**		Interval: **5 to 33'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **6 to 0'**	DTW: **16.32' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **6 to 26'**	Well Depth: **31'bgs**

Depth water Encountered during drilling: **21'**

Total depth: **33' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SM	dry	5	7.5YR 8/2	5.6	N	Samples (MRW08@18-20 @1100)	22"		**Silty SAND** – (0 – 2') – loose, fine grained, dry, white, angular, trace clay & cemented caliche		
3	SM	dry	< 5	7.5YR 8/1	4.4	N		3"		**Caliche** – (2 – 8') – very dense, cemented silty fine grained sand, white, angular		
5					2.5	N		5"				
7					36.8	N		12"				
9					185	Y		5"		- @ ~8' possible staining & odor		
11					7.2	Y		Cut.				
13					304	Y		3"		- @ ~14' no staining present		
15					309	N		Cut.				
17					377	N		Cut.		- @ ~18' slight odor & staining present		
19					1005	Y		12"				

top of screen @ ~7' bgs

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-8**	Project: **North Monument (Holly Energy)**
	Date: **2 / 14 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **3 to 5'**	Grout Interval: **to**	
Filter Pack Size: **10/20 sand**		Interval: **5 to 33'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **21'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **6 to 0'**	DTW: **16.32' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **6 to 26'**	Well Depth: **31'bgs**	Total depth: **33' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	SM	moist		7.5YR						- @ ~20' – becomes moist		
21		wet		8/1	807	Y		14"				
		21'								- @ ~21' – becomes wet and pink		
22			5	7.5YR						- @ ~21.5' – black Silty SAND layer, trace clay		
				7/3								
23					537	N		14"				
24												
25												
26												
27												
28												
29												
30												
31												5' SUMP
32												TD = 31'
33										Total Depth drilled – 33 feet		bottom of acreen @ 26' bgs
34												
35												
36												
37												
38												
39												
40												

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-9**	Project: **North Monument (Holly Energy)**
Date: **2 / 14 / 2013**	Project Number: **078802**
Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **3 to 5'**	Grout Interval: **to**
Filter Pack Size: **10/20 sand**		Interval: **5 to 32'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **7 to 0'**	DTW: **16.59' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **7 to 27'**	Well Depth: **32'bgs**

Depth water Encountered during drilling: **21'**

Total depth: **32' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SM	dry	5	7.5YR 8/2				5"		**Silty SAND** – (0 – 1') – loose, fine grained, dry, white, angular, trace clay & cemented caliche		
2	SM	dry	< 5	7.5YR 8/1	6.3	N				**Caliche** – (1 – 20') – dense, cemented silty fine grained sand, white, angular		
3								20"				
4					5.1	N						
5								23"				
6					9.2	N						
7				7.5YR 7/3				5"		- @ ~6' becomes pink		
8					3.1	N						
9								12"				
10					4.1	N						
11				7.5YR 8/1				20"		- @ ~10' becomes white		
12					2.4	N						
13								12"		- @ ~12' trace pink mottling present		
14					14.4	N						
15								Cut.				
16					20.3	N				- @ ~15.5' trace odor		
17				7.5YR 7/3				Cut.		- @ ~16' becomes pink		
18					508	N						
19								Cut.				
20					1418	N						

Samples (MRW09@18-20 @1313)

top of screen @ ~7' bgs

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-9**	Project: **North Monument (Holly Energy)**
	Date: **2 / 14 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **3 to 5'**	Grout Interval: **to**	
Filter Pack Size: **10/20 sand**		Interval: **5 to 32'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **21'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **7 to 0'**	DTW: **16.59' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **7 to 27'**	Well Depth: **32'bgs**	Total depth: **32' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	SM									- @ ~20' – trace clay		
21		wet			568	N		Cut.	▼			
		21'								- @ ~21' – becomes wet		
22												
23					1340	Y		Cut.				
24												
25					39	N		Cut.				
26												
27					61.9	N		Cut.				
28												
29					63.2	N		Cut.				
30												
31												5' SUMP
32												
										Total Depth drilled – 32 feet		TD = 32'
33												
34												
35												
36												
37												
38												
39												
40												

bottom of acreen @ 28' bgs

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-10** | Project: **North Monument (Holly Energy)**

Date: **2 / 13 / 2013** | Project Number: **078802**

Logged by: **Dennis McCormick** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **3 to 5'** | Grout Interval: **to**

Filter Pack Size: **10/20 sand** Interval: **5 to 32'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **21'**

Casing Type: **Sch. 40** Diameter: **1 & 4 in.** Interval: **7 to 0'** | DTW: **16.82' bgs**

Screen Type: **Sch. 40** Slot: **20** Diameter: **1 & 4 in.** Interval: **7 to 27'** | Well Depth: **32'bgs** | Total depth: **32' bgs**

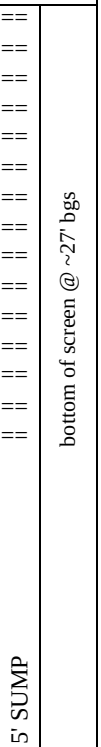
Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	SM	dry	5	5YR 3/3	1.6	N	Samples (MRW10@18-20 @1100)	5”		**Caliche** – (0 – 20’) – cemented silty fine grained sand, pink, angular, some fine grained gravel		
2												
3	SM	dry	< 5	7.5YR 8/2	3.5	N		5”		- @ ~2' becomes pinkish white		
4												
5					14.7	N		5”				
6												
7					7.7	N		12”				
8												
9					11.4	N		8”				
10												
11					8	N		8”				
12												
13					6.8	N		Cut.				
14												
15					2.5	N		Cut.				
16										- @ ~15.5’ trace odor		
17		moist			452	N		Cut.		- @ ~16.5’ odor - @ ~17' becomes moist		
18												
19		v. moist			288	N		Cut.		- @ ~18' becomes very moist		top of screen @ ~7' bgs
20												

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-10**	Project: **North Monument (Holly Energy)**
	Date: **2 / 13 / 2013**	Project Number: **078802**
	Logged by: **Dennis McCormick**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **3 to 5'**	Grout Interval: **to**	
Filter Pack Size: **10/20 sand**		Interval: **5 to 32'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **21'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **7 to 0'**	DTW: **16.82' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **7 to 27'**	Well Depth: **32'bgs**	Total depth: **32' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	SM		< 5	5YR						**Silty SAND** - (20 - 32') - fine to medium grained, poorly		
21		wet		7/3	925	N		Cut.		sorted, wet, pink, trace clay		
		21'								- @ ~21' – becomes wet		
22												
		wet	10	5YR								
23				7/3	644	N		Cut.				
24												
25					39	N		Cut.				
26												
27					61.9	N		Cut.				
28												
29					63.2	N		Cut.				
30												
31												
32												
										Total Depth drilled – 32 feet		TD = 32'
33												
34												
35												
36												
37												
38												
39												
40												



LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-11**	Project: **North Monument (Holly Energy)**
Date: **2 / 19 / 2013**	Project Number: **078802**
Logged by: **Justin Covey**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **8 to 10'**	Grout Interval: **3 to 8'**
Filter Pack Size: **10/20 sand**		Interval: **10 to 38'**	Hole Dia: **7-7/8"**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **0 to 12'**	DTW: **22.87' bgs**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **12 to 32'**	Well Depth: **37'bgs**

Depth water Encountered during drilling: **26'**

Total depth: **38' bgs**

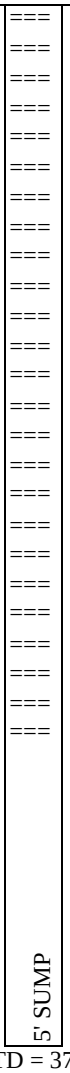
Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	5	10YR 4/3	1	N		20"		**SILT**– (0 – 4') – medium stiff, low plasticity, dry, brown, trace clay & caleche		
2												
3					1.2	N		11"				
4												
5	ML	dry	5	10YR 8/2	1.4	N		4"		**Caliche** – (4 – 10') – Silty SAND – cemented fine grained, dry, pink, angular, trace chert and fine gravel		
6												
7					0.8	N		4"				
8												
9					1.1	N		6"				
10												
11	SP	dry	5	10YR 8/2	1.4	N		8"		**Caliche** – (10 – 17') – Gravelly SAND – dense, medium grained, dry, very pale brown, trace chert		
12												
13					1	N		10"				top of screen @ ~12' bgs
14										- @ ~14' trace cemented Sand		
15					0.7	N		17"				
16												
17					1.1	N		20"				
18	ML	moist	5	5YR 7/4						**SILT** – (17 – 19') – medium stiffness, low plasticity, moist, pink, trace clay, few fine grained sand & caliche		
19					1.4	N		Cut.		- @ ~19' no caliche		
20												

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 1 of 2
	Test/Well Number: **MRW-11**	Project: **North Monument (Holly Energy)**
	Date: **2 / 19 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **8 to 10'**	Grout Interval: **3 to 8'**	
Filter Pack Size: **10/20 sand**		Interval: **10 to 38'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **26'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **0 to 12'**	DTW: **22.87' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **12 to 32'**	Well Depth: **37'bgs**	Total depth: **38' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	SP	moist	< 5	5YR 6/2	71	N	Sample (MRW-11/22-24 @1600	4"		**SAND** – (20 – 30') – dense fine to medium grained, poorly graded, moist, pinkish gray, few caliche gravel, trace Clayey SILT, odor		
21												
22										- @ ~22' trace chert		
23					780	N		Cut.				
24										- @ ~24' no Clayey SILT		
25					41	N		6"				
26		wet 26'								- @ ~26' becomes wet		
27						N		Cut.				
28												
29						N		Cut.				
30												
	GW-GM	wet	< 5	5YR 8/2		N		Cut.		**GRAVEL** – (30 – 37') – loose, fine grained, poorly graded, wet, pinkish white, some fine to medium sand		
31												
32												
33								Cut.				
34												
35												
36												
37												
38												
39										Total Depth drilled – 38 feet		
40												



LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-12**	Project: **North Monument (Holly Energy)**
Date: **2 / 20 / 2013**	Project Number: **078802**
Logged by: **Justin Covey**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **8 to 10**	Grout Interval: **3 to 8**	
Filter Pack Size: **10/20 sand**		Interval: **10 to 38'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **12 to 0'**	DTW: **23.09' bgs**	during drilling: **23'**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **12 to 32'**	Well Depth: **37'bgs**	Total depth: **38' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	< 5	5YR 4/2	0.7	N		4"		**SILT**– (0 – 2') – medium stiff, non-plastic, dry, dark reddish gray, some fine sand, trace caleche		
2												
3	SM	dry	< 5	5YR 8/2	1	N		2"		**Caliche** – (2 – 6') – Silty SAND – very dense, cemented fine grained, dry, pinkish white		
4												
5					1.6	N		2"				
6												
7	ML	dry	< 5	7.5YR 6/3	1.5	N		20"		**SILT** – (6 – 8') – medium stiff, non-plastic, dry, light brown, few fine grained sand, interbedded Caliche layers of fine to coarse gravel		
8												
9	GW	dry		7.5YR 6/2	0.7	N		7"		**Caliche** – (8 – 12') – GRAVEL – loose, fine to coarse grained, chert, cemented fine grained sand, dry, pinkish gray, angular		
10												
11					0.7	N		Cut.				
12												
13	SP	dry	< 5	5YR 8/2	0.9	N		10"		**Caliche -** (12 – 14') – SAND – dense, fine to medium grained, poorly graded, dry, pinkish white, some cementation, trace fine to coarse gravel		top of screen @ ~12' bgs
14												
15					0.9	N		14"		- @ ~14' trace chert		
16												
17					1.5	N		13"				
18	ML	moist	5	5YR 7/4								
19					1.3	N		4"		- @ ~18' trace silt		
20												

cement grout bentonite seal filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-12**	Project: **North Monument (Holly Energy)**
	Date: **2 / 20 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **8 to 10**	Grout Interval: **3 to 8**	
Filter Pack Size: **10/20 sand**		Interval: **10 to 38'**	Hole Dia: **7-7/8"**	Depth water Encountered
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **12 to 0'**	DTW: **23.09' bgs**	during drilling: **23'**
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **12 to 32'**	Well Depth: **37'bgs**	Total depth: **38' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20												
	SP	moist	< 5	5YR								
21				6/2	705	N		20"		**SILT** – (20 – 22') – dense, low plasticity, moist, reddish brown, trace fine grained sand & caliche, odor		
22												
	SP		< 5	5YR								
23		wet		7/2	70.2	N		14"		**SAND** – (22 – 32') – loose, fine to medium grained, poorly graded, wet, pinkish gray, few caliche gravel, trace silt and caliche, odor		
		23'										
24										- @ 24' trace chert		
25						N		6"				
26												
27						N		Cut.		- @ ~26' no silt		
28												
29						N		Cut.				
30												
31								Cut.				
32												
	SM	wet	< 5	5YR						**Silty SAND** – (32 – 37') – medium dense, fine grained, poorly sorted, wet, reddish brown, trace caliche		
33				4/3				Cut.				
34												
35								Cut.				
36												
37												
38												
										Total Depth drilled – 38 feet		
39												
40												

Sample (MRW-12/20-22 @0922)

WELL COMPLETION: 5' SUMP; bottom of screen @ ~32' b; TD = 37'

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-13** | Project: **North Monument (Holly Energy)**

Date: **2 / 20 / 2013** | Project Number: **078802**

Logged by: **Justin Covey** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **9 to 11** | Grout Interval: **3 to 9**

Filter Pack Size: **10/20 sand** | Interval: **9 to 39'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **22'**

Casing Type: **Sch. 40** | Diameter: **1 & 4 in.** | Interval: **13 to 0'** | DTW: **23.54' bgs**

Screen Type: **Sch. 40** | Slot: **20** | Diameter: **1 & 4 in.** | Interval: **13 to 33'** | Well Depth: **38'bgs** | Total depth: **39' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	< 5	7.5YR 5/3				18"		**SILT–** (0 – 1') – very stiff, low plasticity, dry, brown, trace fine sand		
2	SM	dry	< 5	7.5YR 8/2	0	N				**Caliche** – (1 – 8') – Silty SAND – very dense, cemented fine grained, dry, pinkish white		
3								Cut.				
4					0	N				- @ ~4' becomes fine to medium grained sand		
5								4"				
6					0	N						
7				7.5YR 8/3				3"		- @ ~6' becomes pink		
8					0	N						
9	SP	dry	< 5	7.5YR 8/3				3"		**Caliche** – (8 – 18') – Sand – dense, fine to medium grained, poorly graded, dry, pink, some cementation, trace chert		
10				7.5YR 8/1	0	N				- @ ~10' becomes white		
11				7.5YR 7/3				14"		- @ ~10.5 becomes pink		
12					0	N						
13								19"				
14					0	N						
15								15"		- @ ~14' some fine to coarse gravel		
16					0	N						
17								5"				
18					0	N						
19	ML	moist	< 5	5YR 5/6				17"		**Sandy SILT** – (18 – 24') – very stiff, low plasticity, moist, yellowish red, fine grained sand, trace caliche		
20					0	N						

top of screen @ ~13' bgs

cement grout | bentonite seal | filter pack

LOCATION MAP	TEST HOLE / WELL LOG	Page 2 of 2
	Test/Well Number: **MRW-13**	Project: **North Monument (Holly Energy)**
	Date: **2 / 20 / 2013**	Project Number: **078802**
	Logged by: **Justin Covey**	Drilled By: **B. Adkins**
	Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **9 to 11**	Grout Interval: **3 to 9**	
Filter Pack Size: **10/20 sand**		Interval: **9 to 39'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **22'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **13 to 0'**	DTW: **23.54' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.** Interval: **13 to 33'**	Well Depth: **38'bgs**	Total depth: **39' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20							Sample (MRW-13/20-22 @1110					
	SP	moist	< 5	5YR						- @ ~20' becomes pink		
21				8/3	0	N		8"				
22		wet										
	SP	22'	< 5	5YR						- @ ~22' becomes light reddish brown and wet		
23				6/4	959	N		6"				
24												
	SM	wet		5YR						**Silty SAND** – (24 – 28') – medium dense, fine grained,		
25				8/3		N		3"		wet, pink, trace cementation & caliche, odor		
26												
										- @ ~26' some gravel		
27						N		Cut.				
28												
	SP	wet		5YR						**Gravelly SAND** - (28 – 30') – loose, medium to coarse		
29				7/2		N		Cut.		grained, well graded, wet, pinkish gray, trace silt		
30												
	GW	wet		5YR						**GRAVEL** – (30 – 38') – loose, fine to coarse grained,		
31				7/2				Cut.		well graded, wet, pinkish gray		
32												
33								Cut.				
34												
35								Cut.				
36												
										- @ ~36' some silt		
37								Cut.				
38												
39												
										Total Depth drilled – 39 feet		
40												

bottom of screen @ ~33' bgs

5' SUMP

TD = 38'

LOCATION MAP

TEST HOLE / WELL LOG — Page 1 of 2

Test/Well Number: **MRW-14**	Project: **North Monument (Holly Energy)**
Date: **2 / 20 / 2013**	Project Number: **078802**
Logged by: **Justin Covey**	Drilled By: **B. Adkins**
Drilling Method: **Air Rotary**	Sampling Method: **Split Spoon**

Ground Elevation::	Detector: **PID**	Seal/Int: Bentonite **9 to 11**	Grout Interval: **3 to 9**	
Filter Pack Size: **10/20 sand**		Interval: **9 to 39'**	Hole Dia: **7-7/8"**	Depth water Encountered during drilling: **23'**
Casing Type: **Sch. 40**	Diameter: **1 & 4 in.**	Interval: **13 to 0'**	DTW: **23.10' bgs**	
Screen Type: **Sch. 40**	Slot: **20**	Diameter: **1 & 4 in.**	Interval: **13 to 33'**	Well Depth: **38'bgs**	Total depth: **39' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
1	ML	dry	< 5	7.5YR 4/3				16"		**SILT–** (0 – 1') – stiff, low plasticity, dry, brown, trace fine sand & caliche		
2	SP	dry	< 5	7.5YR 8/1	0	N				**Caliche** – (1 – 4') – Sand – dense, cemented fine grained, dry, white		
3								Cut.				
4					0.3	N						
5	SP	dry	< 5	7.5YR 8/2				13"		**SAND** – (4 – 18') – dense, fine to medium grained, poorly sorted, dry, pinkish white, some cementation		
6					1.6	N						
7								10"				
8					0	N						
9								8"		- @ ~8' with some fine grained sandstome		
10					0	N						
11								12"				
12					0	N						
13				7.5YR 8/1				6"		- @ ~12' becomes white		
14					0	N						
15								5"		- @ ~14' few chert present		
16					0	N						
17				7.5YR 8/2				7"		- @ ~16' becomes pinkish white		
18					0	N						
19	ML	moist	< 5	7.5YR 5/6				13"		**Sandy SILT** – (18 – 24') – firm, low plasticity, moist, strong brown, trace caliche & odor		
20					420	N						

top of screen @ ~13' bgs

cement grout bentonite seal filter pack

LOCATION MAP

TEST HOLE / WELL LOG — Page 2 of 2

Test/Well Number: **MRW-14** | Project: **North Monument (Holly Energy)**

Date: **2 / 20 / 2013** | Project Number: **078802**

Logged by: **Justin Covey** | Drilled By: **B. Adkins**

Drilling Method: **Air Rotary** | Sampling Method: **Split Spoon**

Ground Elevation:: | Detector: **PID** | Seal/Int: Bentonite **9 to 11** | Grout Interval: **3 to 9**

Filter Pack Size: **10/20 sand** | Interval: **9 to 39'** | Hole Dia: **7-7/8"** | Depth water Encountered during drilling: **23'**

Casing Type: **Sch. 40** | Diameter: **1 & 4 in.** | Interval: **13 to 0'** | DTW: **23.10' bgs**

Screen Type: **Sch. 40** | Slot: **20** | Diameter: **1 & 4 in.** | Interval: **13 to 33'** | Well Depth: **38'bgs** | Total depth: **39' bgs**

Depth	Soil/Rock Type	Moisture Content	% Fines	Color	Vapor (ppm)	Staining	Sample #	Soil Recovery	Water Level	LITHOLOGY/REMARKS	Fabric	WELL COMPLETION
20							Sample (MRW-14/20-22 @1340			- @ ~20' strong odor		
21					0	N		19"				
22												
	SM	moist	< 5	7.5YR						**Caliche** – (22 – 28') - Silty SAND - dense, fine to		
23		wet		6/4	959	N		6"		medium grained, wet, light brown, trace caliche, odor		
		23'										
24												
25						N		Cut.				
26										- @ ~26' some gravel		
27						N		Cut.				
28												
	SP	wet	< 5	7.5YR						**Gravelly SAND** - (28 – 30') – loose, medium grained,		
29				6/4		N		Cut.		poorly graded, wet, light brown gray, trace silt		
30										- @ ~30' some silt		
31								Cut.				
32												
	SM	wet	< 5	7.5YR						**Silty SAND** – (32 – 36') – dense, fine to medium		
33				7.2				Cut.		grained, poorly sorted, wet, pinkish gray, trace fine gravel.		
34												
35								Cut.				
36												
37								Cut.		**Sandy GRAVEL** (36 – 38') – loose, fine to coarse grained, well graded, wet, trace silt		5' SUMP
38												TD = 38'
39												
40										Total Depth drilled – 39 feet		

bottom of screen @ ~33' bgs

APPENDIX I

SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

Appendix I - Summary of Soil Sample Hydrocarbon Results from Monitoring Well Installations
Holly Energy - North Monument - Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth	Laboratory Analytical Results								Headspace Reading	Water level Encountered	Measured Water Level
			Benzene	Toluene	Ethyl-benzene	Total Xylenes	BTEX	TPH-GRO	TPH-DRO	TPH			
		(ft-bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	ppm	(ft-bgs)	(ft-bgs)
NMOCD Remediation Action Levels			**10**				**50**			**100**	**100**		
MRW-1/18-20	2/19/13	0-2									0.5		
		2-4									1.5		
		4-6									1.1		
		6-8									1		
		8-10									2		
		10-12									0.6		
		12-14									1.5		
		14-16									1.7		
		16-18									**127**		
		18-20	< 0.0010	< 0.00103	0.0647	0.4905	0.5572	76.7	413	**489.7**	**387**	21.75	19.21
MRW-2/18-20	2/19/13	0-2									0.5		
		2-4									1.5		
		4-6									1.1		
		6-8									1		
		8-10									2		
		10-12									0.6		
		12-14									1.5		
		14-16									1.7		
		16-18									**127**		
		18-20	< 0.0009	< 0.000932	0.0068	0.0366	0.0452	26.6	392	**418.6**	**387**	21.5	19.2
MRW-3/20-22	2/19/13	0-2									0		
		2-4									0.4		
		4-6									0.8		
		6-8									1.2		
		8-10									0.7		
		10-12									1.4		
		12-14									1		
		14-16									1.5		
		16-18									16.9		
		18-20									30.4		18.9
		20-22	< 0.0011	< 0.00118	0.0439	0.1642	0.2104	66.1	309	**375.1**	**148**	21.25	
MRW04@18-19	2/15/13	0-2									1.7		
		2-4									8.8		
		4-6									4.1		
		6-8									4.4		
		8-10									47.8		
		10-12									21.4		
		12-14									28.8		
MRW05@18-20	2/15/13	0-2									1.1		18.65
		2-4									1.6		
		4-6									3.6		
		6-8									5.8		
		8-10									5.3		
		10-12									3.1		
		12-14									21.5		
		14-16									**284**		
		16-18									**135**		
		18-20	0.0242	< 0.001	0.726	2.60	3.35	185	1110	**1295**	**445**		18.6
		20-22									**124**	20	

Appendix I - Summary of Soil Sample Hydrocarbon Results from Monitoring Well Installations
Holly Energy - North Monument - Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth	Laboratory Analytical Results								Headspace Reading	Water level Encountered	Measured Water Level
			Benzene	Toluene	Ethyl-benzene	Total Xylenes	BTEX	TPH-GRO	TPH-DRO	TPH			
		(ft-bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	ppm	(ft-bgs)	(ft-bgs)
NMOCD Remediation Action Levels			**10**				**50**			**100**	**100**		
MRW06@22-24	2/14/2013	0-2									9		
		2-4									7.5		
		4-6									2.7		
		6-8									19.5		
		8-10									**138**		
		10-12									**114**		
		12-14									87.8		
		14-16	0.0026	< 0.001	0.271	0.6765	0.9511	210	1570	**1780**	**491**		
		16-18									**423**		17.62
		18-20									**385**		
		20-22									**414**		
		22-24									**350**	23	
MRW07@22-24	2/14/2013	0-2									4.6		
		2-4									8.3		
		4-6									5.6		
		6-8									5.8		
		8-10									NS		
		10-12									NS		
		12-14									NS		
		14-16									NS		
		16-18									**216**		17.29
		18-20									**259**		
		20-22									**807**		
		22-24	1.79	< 0.001	13.9	43.64	**59.33**	2880	5500	**8380**	**935**	20	
MRW08@18-20	2/14/2013	0-2									5.6		
		2-4									4.4		
		4-6									2.5		
		6-8									36.8		
		8-10									**185**		
		10-12									7.2		
		12-14									**304**		
		14-16									**309**		
		16-18									**377**		16.32
		18-20	0.005	< 0.001	0.77	0.0176	0.7936	213	976	**1189**	**1005**		
		20-22									**705**	21	
MRW09@18-20	2/13/2013	0-2									0.3		
		2-4									5.1		
		4-6									9.2		
		6-8									3.1		
		8-10									4.1		
		10-12									2.4		
		12-14									14.4		
		14-16									20.3		
		16-18									**508**		16.59
		18-20	0.0024	< 0.001	0.373	3.8221	4.20	396	2600	**2996**	**1418**		
		20-22									**568**	21	
MRW10@20-22	2/13/2013	0-2									1.6		
		2-4									3.5		
		4-6									14.7		
		6-8									7.7		
		8-10									11.4		
		10-12									8		
		12-14									6.8		
		14-16									2.5		
		16-18									**452**		16.82
		18-20									**288**		
		20-22	0.0012	< 0.001	0.263	0.7405	1.01	181	771	**952**	**925**	21	

Appendix I - Summary of Soil Sample Hydrocarbon Results from Monitoring Well Installations
Holly Energy - North Monument - Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth	Laboratory Analytical Results								Headspace Reading	Water level Encountered	Measured Water Level
			Benzene	Toluene	Ethyl-benzene	Total Xylenes	BTEX	TPH-GRO	TPH-DRO	TPH			
		(ft-bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	ppm	(ft-bgs)	(ft-bgs)
NMOCD Remediation Action Levels			**10**				**50**			**100**	**100**		
MRW-11/22-24	2/19/13	0-2									1		
		2-4									1.2		
		4-6									14		
		6-8									0.8		
		8-10									1.1		
		10-12									1.4		
		12-14									1		
		14-16									0.7		
		16-18									1.1		
		18-20									1.4		
		20-22									71		
		22-24	< 0.0010	0.0132	< 0.0010	< 0.002	0.0162	1.22	193	**194.22**	**780**	26	22.87
MRW-12/20-22	2/20/13	0-2									0.7		
		2-4									1		
		4-6									1.6		
		6-8									1.5		
		8-10									0.7		
		10-12									0.7		
		12-14									0.9		
		14-16									0.9		
		16-18									1.5		
		18-20									1.3		
		20-22	< 0.0011	< 0.0011	1.15	4.33	5.48	111	978	**1089**	**705**		
		22-24									70.2	23	23.09
MRW-13/20-22	2/20/13	0-2									0		
		2-4									0		
		4-6									0		
		6-8									0		
		8-10									0		
		10-12									0		
		12-14									0		
		14-16									0		
		16-18									0		
		18-20									0		
		20-22	< 0.0009	0.0051	< 0.0009	0.0018	0.0078	< 0.113	19.6	19.713	0	23	23.54
MRW-14/20-22	2/20/13	0-2									0		
		2-4									0.3		
		4-6									1.6		
		6-8									0		
		8-10									0		
		10-12									0		
		12-14									0		
		14-16									0		
		16-18									0		
		18-20									**420**		
		20-22	0.179	<0.00115	11.2	32.65	44.03	1830	6620	**8450**	**1225**	23	23.1

NOTES:

NMOCD= New Mexico Oil & Conservation Division

mg/kg = milligrams per kilogram

BTEX = Benzen, Toluene, Ethylbenzen & Total Xylenes

TPH-GRO = Total Petroleum Hydrocarbons- Gasoline Range Organics

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

ft-bgs = feet below ground surface

ppm = parts per million

BOLD (RED) - concentration greater than NMOCD Remediation Action Levels

< = analyte not detected above method reporting limit

BTEX analyzed by EPA Method 8260B

TPH-GRO analyzed by EPA Method 8260B

TPH-DRO analyzed by EPA Method 8015M

NS = not sampled

APPENDIX J

SUBSURFACE SOIL LABORATORY REPORTS

February 25, 2013

Bill Green
Holly Energy Partners
1602 W. Main
Artesisa, NM 88210
TEL: (575) 748-8968
FAX (575) 748-4052

Order No.: 1302158

RE: N. Monument

Dear Bill Green:

DHL Analytical, Inc. received 6 sample(s) on 2/18/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-12-9

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 58820

CHAIN-OF-CUSTODY

CLIENT: CRA
ADDRESS: 14998 W 6th Ave Golden Co 80401
PHONE: 720-974-0935 FAX/E-MAIL:
DATA REPORTED TO: Brad Stephenson
ADDITIONAL REPORT COPIES TO:

DATE: 2-15-13 PAGE 1 OF 1
PO #: ~~078~~ DHL WORK ORDER #: 1302158
PROJECT LOCATION OR NAME: N. Monument
CLENT PROJECT #: 078802 COLLECTOR: Dennis McCormick

Authorize 5% surcharge for TRRP Report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	BTEX	TPH-GRO	TPH-DRO	FIELD NOTES
MRW10@20-22	01	2/13/13	1100	S	4oz	2					X	X	X	X	
MRW09@18-20	02	2/13/13	1313	S	4oz	2					X	X	X	X	
MRW08@18-20	03	2/14/13	1100	S	4oz	2					X	X	X	X	
MRW07@ ~~22-24~~	04	2/14/13	1300	S	4oz	2					X	X	X	X	
MRW06@ 14-16	05	2/14/13	1540	S	4oz	2					X	X	X	X	
MRW05@ 18-~~20~~	06	2/15/13	0940	S	4oz	2					X	X	X	X	
TOTAL															

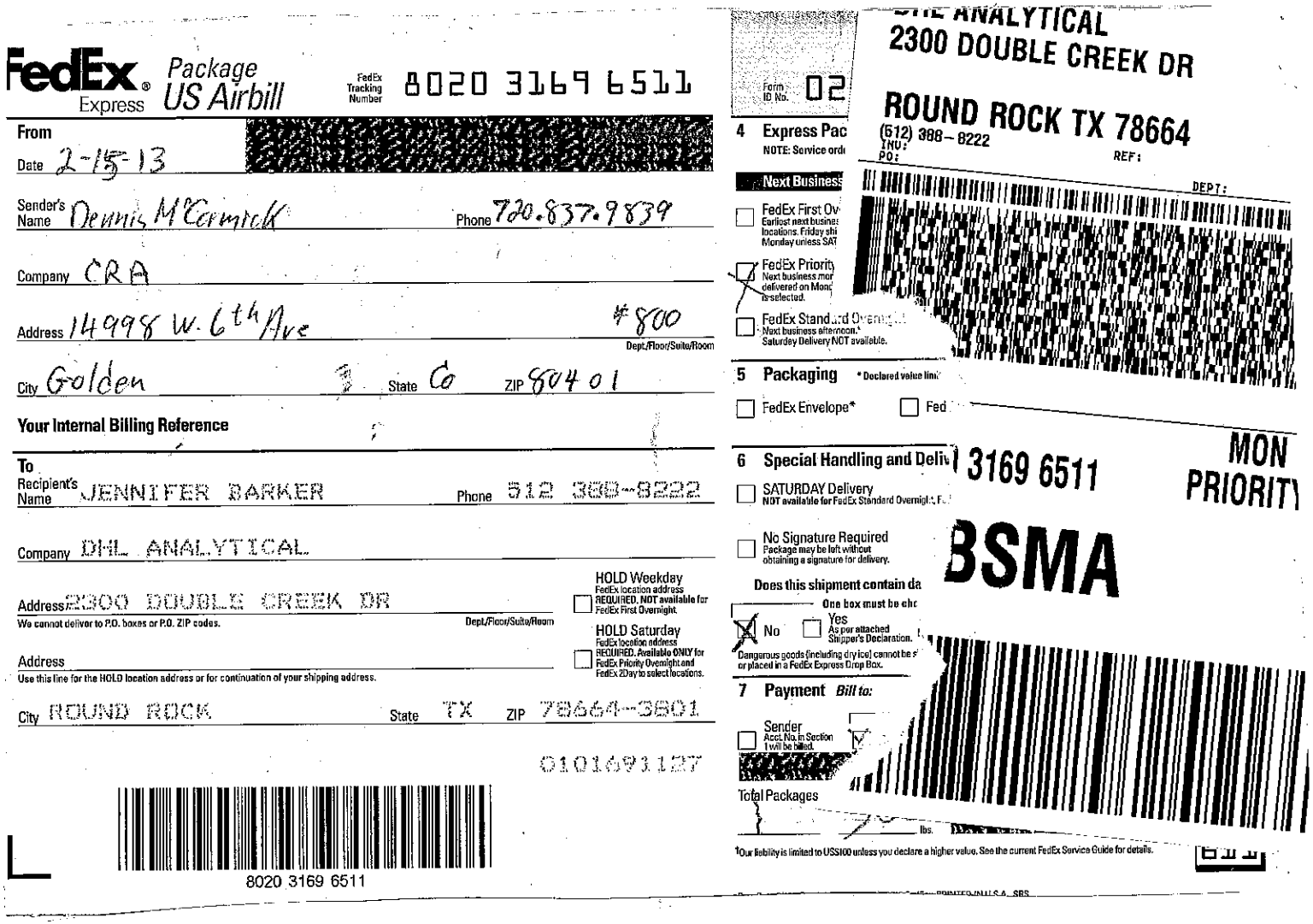
ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021] TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ 8081 PEST ☐ 608 PEST/PCB ☐ 8082 PCB ☐ 8270 PEST ☐ 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ 8321 HERB ☐ 8330 EXPL ☐ PERCHLORATE ☐ METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ ____ ☐ RCRA ☐ TX11 ☐ ____ PH ☐ HEX CHROM ☐ ALKALINITY ☐ CHLORIDE ☐ ANIONS ____ ☐ TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐

RELINQUISHED BY: (Signature) Dennis McCormick DATE/TIME 2/15/13 1500 RECEIVED BY: (Signature) Fed EX
RELINQUISHED BY: (Signature) DATE/TIME 2/18/13 850 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 5.4 THERM #: 51
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☐ NOT USED
☒ CARRIER BILL #: Fedex
☐ APC DELIVERY
☐ HAND DELIVERED



FedEx Express Package US Airbill

FedEx Tracking Number 8020 3169 6511

Form ID No. 02

From

Date 2-15-13

Sender's Name Dennis McCormick Phone 720.837.9839

Company CRA

Address 14998 W. 6th Ave #800

Dept/Floor/Suite/Room

City Golden State Co ZIP 80401

Your Internal Billing Reference

To

Recipient's Name JENNIFER BARKER Phone 512 388-8222

Company DHL ANALYTICAL

Address 2300 DOUBLE CREEK DR

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City ROUND ROCK State TX ZIP 78664-3801

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0101693127

8020 3169 6511

DHL ANALYTICAL
2300 DOUBLE CREEK DR
ROUND ROCK TX 78664
(512) 388-8222
INV:
PO: REF:

DEPT:

4 Express Pac
NOTE: Service ord

Next Business

FedEx First Ov
Earliest next busines
locations. Friday shi
Monday unless SAT

FedEx Priority
Next business mor
delivered on Mond
is selected.

FedEx Stand...d Overnight
Next business afternoon.
Saturday Delivery NOT available.

5 Packaging * Declared value lim

FedEx Envelope* Fed

6 Special Handling and Deli

SATURDAY Delivery
NOT available for FedEx Standard Overnight, F...

No Signature Required
Package may be left without obtaining a signature for delivery.

Does this shipment contain da
One box must be che

No Yes
As per attached Shipper's Declaration.

Dangerous goods (including dry ice) cannot be s
or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Sender
Acct. No. in Section 1 will be billed.

Total Packages lbs.

1Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

3169 6511

MON
PRIORITY

BSMA

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Holly Energy Partners | Date Received: 2/18/2013

Work Order Number 1302158 | Received by JB

Checklist completed by: _____ 2/18/2013 (Signature / Date) | Reviewed by 55 2/18/2013 (Initials / Date)

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	5.4 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT: Holly Energy Partners
Project: N. Monument
Lab Order: 1302158

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, Reactivity, ASTM D2216 and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives, except where noted in the following.

For DRO Analysis, the recovery of one surrogate for all of the Samples, the Laboratory Control Spike Matrix Spike and Matrix Spike Duplicate (132158-06 MS/MSD) was outside of the method control limits, due to coelution. The remaining surrogate for these samples was within method control limits. Additionally, the recoveries of both surrogates for Sample MRW07@22-24 were above the method control limits. These are flagged accordingly in the Analytical Data Report and QC Summary Report. No further corrective action was taken.

For DRO Analysis, the recovery was of the Matrix Spike and Matrix Spike Duplicate (1302158-06 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. The associated LCS was within method control limits.

For GRO Analysis, the recovery of surrogate Tetrachloroethene for all of the Samples, with the exception of Sample MRW06@14-16, and the Matrix Spike and Matrix Spike Duplicate (1302158-06 MS/MSD) was above the method control limits, due to coelution. These are flagged accordingly in the Analytical Data Report and QC Summary Report. No further corrective action was taken.

For Volatiles Organics Analysis, the recovery of surrogate 4-Bromofluorobenzene for all of the Samples was above the method control limits. Additionally, the recovery of Dibromofluoromethane for the Matrix Spike (1302155-02 MS) was below the method control limits. These are flagged accordingly in the Analytical Data Report and QC Summary Report. The remaining surrogates for these samples were within method control limits. No further corrective action was taken.

For Volatiles Organics Analysis, m,p-Xylenes was detected at less than half of the reporting limit for Method Bank-56119, due to laboratory artifact. This compound was detected at greater than 10x the amount in the associated samples. No further corrective action was taken.

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW10@20-22
Project:	N. Monument	**Lab ID:**	1302158-01
Project No:	078802	**Collection Date:**	02/13/13 11:00 AM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	771	17.0	56.6		mg/Kg-dry	5	02/19/13 01:01 PM
Surr: Isopropylbenzene	96.1	0	47-142		%REC	5	02/19/13 01:01 PM
Surr: Octacosane	178	0	25-162	S	%REC	5	02/19/13 01:01 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	181	5.79	11.6		mg/Kg-dry	50	02/18/13 05:24 PM
Surr: Tetrachlorethene	136	0	70-134	S	%REC	50	02/18/13 05:24 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00126	0.000912	0.00456	J	mg/Kg-dry	1	02/19/13 02:13 PM
Ethylbenzene	0.263	0.000912	0.00456		mg/Kg-dry	1	02/19/13 02:13 PM
m,p-Xylene	0.683	0.000912	0.00456		mg/Kg-dry	1	02/19/13 02:13 PM
o-Xylene	0.0575	0.000912	0.00456		mg/Kg-dry	1	02/19/13 02:13 PM
Toluene	ND	0.000912	0.00456		mg/Kg-dry	1	02/19/13 02:13 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	1	02/19/13 02:13 PM
Surr: 4-Bromofluorobenzene	151	0	84-118	S	%REC	1	02/19/13 02:13 PM
Surr: Dibromofluoromethane	99.4	0	65-135		%REC	1	02/19/13 02:13 PM
Surr: Toluene-d8	102	0	84-116		%REC	1	02/19/13 02:13 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	13.7	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW09@18-20
Project:	N. Monument	**Lab ID:**	1302158-02
Project No:	078802	**Collection Date:**	02/13/13 01:13 PM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	2600	63.6	212		mg/Kg-dry	20	02/19/13 12:11 PM
Surr: Isopropylbenzene	99.7	0	47-142		%REC	20	02/19/13 12:11 PM
Surr: Octacosane	399	0	25-162	S	%REC	20	02/19/13 12:11 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	396	5.62	11.2		mg/Kg-dry	50	02/18/13 05:51 PM
Surr: Tetrachlorethene	143	0	70-134	S	%REC	50	02/18/13 05:51 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00246	0.00102	0.00512	J	mg/Kg-dry	1	02/19/13 02:44 PM
Ethylbenzene	0.373	0.00102	0.00512		mg/Kg-dry	1	02/19/13 02:44 PM
m,p-Xylene	3.82	0.0562	0.281		mg/Kg-dry	50	02/19/13 07:57 PM
o-Xylene	0.00215	0.00102	0.00512	J	mg/Kg-dry	1	02/19/13 02:44 PM
Toluene	ND	0.00102	0.00512		mg/Kg-dry	1	02/19/13 02:44 PM
Surr: 1,2-Dichloroethane-d4	101	0	52-149		%REC	50	02/19/13 07:57 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	1	02/19/13 02:44 PM
Surr: 4-Bromofluorobenzene	154	0	84-118	S	%REC	1	02/19/13 02:44 PM
Surr: 4-Bromofluorobenzene	105	0	84-118		%REC	50	02/19/13 07:57 PM
Surr: Dibromofluoromethane	99.1	0	65-135		%REC	1	02/19/13 02:44 PM
Surr: Dibromofluoromethane	99.0	0	65-135		%REC	50	02/19/13 07:57 PM
Surr: Toluene-d8	110	0	84-116		%REC	1	02/19/13 02:44 PM
Surr: Toluene-d8	96.1	0	84-116		%REC	50	02/19/13 07:57 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	11.0	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW08@18-20
Project:	N. Monument	**Lab ID:**	1302158-03
Project No:	078802	**Collection Date:**	02/14/13 11:00 AM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	976	15.8	52.8		mg/Kg-dry	5	02/19/13 01:10 PM
Surr: Isopropylbenzene	83.0	0	47-142		%REC	5	02/19/13 01:10 PM
Surr: Octacosane	231	0	25-162	S	%REC	5	02/19/13 01:10 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	213	5.62	11.2		mg/Kg-dry	50	02/18/13 06:17 PM
Surr: Tetrachlorethene	146	0	70-134	S	%REC	50	02/18/13 06:17 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00509	0.000940	0.00470		mg/Kg-dry	1	02/19/13 03:15 PM
Ethylbenzene	0.770	0.0562	0.281		mg/Kg-dry	50	02/19/13 08:28 PM
m,p-Xylene	0.0176	0.000940	0.00470		mg/Kg-dry	1	02/19/13 03:15 PM
o-Xylene	ND	0.000940	0.00470		mg/Kg-dry	1	02/19/13 03:15 PM
Toluene	ND	0.000940	0.00470		mg/Kg-dry	1	02/19/13 03:15 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	50	02/19/13 08:28 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	02/19/13 03:15 PM
Surr: 4-Bromofluorobenzene	186	0	84-118	S	%REC	1	02/19/13 03:15 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	50	02/19/13 08:28 PM
Surr: Dibromofluoromethane	98.8	0	65-135		%REC	1	02/19/13 03:15 PM
Surr: Dibromofluoromethane	99.0	0	65-135		%REC	50	02/19/13 08:28 PM
Surr: Toluene-d8	115	0	84-116		%REC	1	02/19/13 03:15 PM
Surr: Toluene-d8	97.2	0	84-116		%REC	50	02/19/13 08:28 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	11.0	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW07@22-24
Project:	N. Monument	**Lab ID:**	1302158-04
Project No:	078802	**Collection Date:**	02/14/13 01:00 PM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	5500	326	1090		mg/Kg-dry	100	02/19/13 12:29 PM
Surr: Isopropylbenzene	204	0	47-142	S	%REC	100	02/19/13 12:29 PM
Surr: Octacosane	834	0	25-162	S	%REC	100	02/19/13 12:29 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	2880	23.7	47.3		mg/Kg-dry	200	02/18/13 06:41 PM
Surr: Tetrachlorethene	155	0	70-134	S	%REC	200	02/18/13 06:41 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	1.79	0.0591	0.296		mg/Kg-dry	50	02/19/13 10:01 PM
Ethylbenzene	13.9	0.0591	0.296		mg/Kg-dry	50	02/19/13 10:01 PM
m,p-Xylene	36.8	0.0591	0.296		mg/Kg-dry	50	02/19/13 10:01 PM
o-Xylene	6.84	0.0591	0.296		mg/Kg-dry	50	02/19/13 10:01 PM
Toluene	ND	0.0591	0.296		mg/Kg-dry	50	02/19/13 10:01 PM
Surr: 1,2-Dichloroethane-d4	100	0	52-149		%REC	50	02/19/13 10:01 PM
Surr: 4-Bromofluorobenzene	121	0	84-118	S	%REC	50	02/19/13 10:01 PM
Surr: Dibromofluoromethane	95.2	0	65-135		%REC	50	02/19/13 10:01 PM
Surr: Toluene-d8	102	0	84-116		%REC	50	02/19/13 10:01 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	15.4	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW06@14-16
Project:	N. Monument	**Lab ID:**	1302158-05
Project No:	078802	**Collection Date:**	02/14/13 03:40 PM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	1570	59.3	198		mg/Kg-dry	20	02/19/13 12:38 PM
Surr: Isopropylbenzene	107	0	47-142		%REC	20	02/19/13 12:38 PM
Surr: Octacosane	315	0	25-162	S	%REC	20	02/19/13 12:38 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	210	5.30	10.6		mg/Kg-dry	50	02/18/13 07:06 PM
Surr: Tetrachlorethene	127	0	70-134		%REC	50	02/18/13 07:06 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.00260	0.000865	0.00433	J	mg/Kg-dry	1	02/19/13 01:11 PM
Ethylbenzene	0.271	0.000865	0.00433		mg/Kg-dry	1	02/19/13 01:11 PM
m,p-Xylene	0.675	0.000865	0.00433		mg/Kg-dry	1	02/19/13 01:11 PM
o-Xylene	0.00151	0.000865	0.00433	J	mg/Kg-dry	1	02/19/13 01:11 PM
Toluene	ND	0.000865	0.00433		mg/Kg-dry	1	02/19/13 01:11 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	02/19/13 01:11 PM
Surr: 4-Bromofluorobenzene	121	0	84-118	S	%REC	1	02/19/13 01:11 PM
Surr: Dibromofluoromethane	104	0	65-135		%REC	1	02/19/13 01:11 PM
Surr: Toluene-d8	96.3	0	84-116		%REC	1	02/19/13 01:11 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	5.59	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *25-Feb-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW05@18-20
Project:	N. Monument	**Lab ID:**	1302158-06
Project No:	078802	**Collection Date:**	02/15/13 09:40 AM
Lab Order:	1302158	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	1110	63.7	212		mg/Kg-dry	20	02/19/13 11:53 AM
Surr: Isopropylbenzene	69.6	0	47-142		%REC	20	02/19/13 11:53 AM
Surr: Octacosane	252	0	25-162	S	%REC	20	02/19/13 11:53 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	185	2.19	4.38		mg/Kg-dry	20	02/18/13 07:32 PM
Surr: Tetrachlorethene	147	0	70-134	S	%REC	20	02/18/13 07:32 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.0242	0.000967	0.00483		mg/Kg-dry	1	02/19/13 01:42 PM
Ethylbenzene	0.726	0.0547	0.274		mg/Kg-dry	50	02/19/13 08:59 PM
m,p-Xylene	2.60	0.0547	0.274		mg/Kg-dry	50	02/19/13 08:59 PM
o-Xylene	ND	0.000967	0.00483		mg/Kg-dry	1	02/19/13 01:42 PM
Toluene	ND	0.000967	0.00483		mg/Kg-dry	1	02/19/13 01:42 PM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	02/19/13 01:42 PM
Surr: 1,2-Dichloroethane-d4	102	0	52-149		%REC	50	02/19/13 08:59 PM
Surr: 4-Bromofluorobenzene	143	0	84-118	S	%REC	1	02/19/13 01:42 PM
Surr: 4-Bromofluorobenzene	103	0	84-118		%REC	50	02/19/13 08:59 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	02/19/13 01:42 PM
Surr: Dibromofluoromethane	99.6	0	65-135		%REC	50	02/19/13 08:59 PM
Surr: Toluene-d8	105	0	84-116		%REC	1	02/19/13 01:42 PM
Surr: Toluene-d8	94.6	0	84-116		%REC	50	02/19/13 08:59 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	8.61	0	0		WT%	1	02/20/13 08:48 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302158
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_130219A

The QC data in batch 56109 applies to the following samples: 1302158-01B, 1302158-02B, 1302158-03B, 1302158-04B, 1302158-05B, 1302158-06B

Sample ID: **LCS-56109** Batch ID: **56109** TestNo: **M8015D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC15_130219A** Analysis Date: **2/19/2013 10:05:35 AM** Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	115	10.0	125.0	0	92.1	50	114			
Surr: Isopropylbenzene	2.42		7.500		32.3	47	142			S
Surr: Octacosane	6.73		7.500		89.8	25	162			

Sample ID: **1302158-06BMS** Batch ID: **56109** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GC15_130219A** Analysis Date: **2/19/2013 10:32:30 AM** Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1140	216	134.8	1108	22.8	50	114			S
Surr: Isopropylbenzene	7.09		8.085		87.7	47	142			
Surr: Octacosane	23.5		8.085		290	25	162			S

Sample ID: **1302158-06BMSD** Batch ID: **56109** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **GC15_130219A** Analysis Date: **2/19/2013 10:41:29 AM** Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1270	201	125.8	1108	127	50	114	10.7	30	S
Surr: Isopropylbenzene	8.01		7.550		106	47	142	0	0	
Surr: Octacosane	21.4		7.550		284	25	162	0	0	S

Sample ID: **MB-56109** Batch ID: **56109** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC15_130219A** Analysis Date: **2/19/2013 11:08:22 AM** Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	ND	10.0								
Surr: Isopropylbenzene	3.82		7.500		50.9	47	142			
Surr: Octacosane	6.52		7.500		87.0	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302158
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_130218A

The QC data in batch 56112 applies to the following samples: 1302158-01B, 1302158-02B, 1302158-03B, 1302158-04B, 1302158-05B, 1302158-06B

Sample ID: **LCS-56112**	Batch ID: **56112**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GC4_130218A**	Analysis Date: **2/18/2013 4:08:00 PM**	Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.97	0.200	5.000	0	99.4	68	126			
Surr: Tetrachlorethene	0.225		0.2000		112	70	134			

Sample ID: **MB-56112**	Batch ID: **56112**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GC4_130218A**	Analysis Date: **2/18/2013 4:59:58 PM**	Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.237		0.2000		119	70	134			

Sample ID: **1302158-06BMS**	Batch ID: **56112**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GC4_130218A**	Analysis Date: **2/18/2013 7:58:38 PM**	Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	259	4.38	109.4	185.1	67.9	68	126			
Surr: Tetrachlorethene	5.95		4.377		136	70	134			S

Sample ID: **1302158-06BMSD**	Batch ID: **56112**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GC4_130218A**	Analysis Date: **2/18/2013 8:24:36 PM**	Prep Date: **2/18/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	286	4.38	109.4	185.1	92.4	68	126	9.85	30	
Surr: Tetrachlorethene	6.13		4.377		140	70	134	0	0	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302158
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_130219A

The QC data in batch 56119 applies to the following samples: 1302158-01A, 1302158-02A, 1302158-03A, 1302158-04A, 1302158-05A, 1302158-06A

Sample ID: **LCS-56119** Batch ID: **56119** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **LCS** Run ID: **GCMS2_130219A** Analysis Date: **2/19/2013 10:35:00 AM** Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0233	0.00500	0.0232	0	100	75	125			
Ethylbenzene	0.0215	0.00500	0.0232	0	92.8	75	125			
m,p-Xylene	0.0442	0.00500	0.0464	0	95.3	80	125			
o-Xylene	0.0216	0.00500	0.0232	0	93.1	77	125			
Toluene	0.0230	0.00500	0.0232	0	98.9	75	125			
Surr: 1,2-Dichloroethane-d4	54.4		50.00		109	52	149			
Surr: 4-Bromofluorobenzene	49.4		50.00		98.9	84	118			
Surr: Dibromofluoromethane	52.9		50.00		106	65	135			
Surr: Toluene-d8	46.7		50.00		93.5	84	116			

Sample ID: **MB-56119** Batch ID: **56119** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GCMS2_130219A** Analysis Date: **2/19/2013 11:37:00 AM** Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00500								
Ethylbenzene	ND	0.00500								
m,p-Xylene	ND	0.00500								
o-Xylene	ND	0.00500								
Toluene	ND	0.00500								
Surr: 1,2-Dichloroethane-d4	48.7		50.00		97.4	52	149			
Surr: 4-Bromofluorobenzene	48.7		50.00		97.4	84	118			
Surr: Dibromofluoromethane	50.8		50.00		102	65	135			
Surr: Toluene-d8	47.0		50.00		94.0	84	116			

Sample ID: **1302155-02AMS** Batch ID: **56119** TestNo: **SW8260C** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GCMS2_130219A** Analysis Date: **2/19/2013 5:20:00 PM** Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0222	0.00524	0.0243	0	91.3	73	126			
Ethylbenzene	0.0208	0.00524	0.0243	0	85.6	74	127			
m,p-Xylene	0.0441	0.00524	0.0486	0	90.7	79	126			
o-Xylene	0.0205	0.00524	0.0243	0	84.4	77	125			
Toluene	0.0216	0.00524	0.0243	0	89.0	71	127			
Surr: 1,2-Dichloroethane-d4	55.0		52.38		105	52	149			
Surr: 4-Bromofluorobenzene	52.9		52.38		101	84	118			
Surr: Dibromofluoromethane	31.3		52.38		59.8	65	135			S
Surr: Toluene-d8	49.7		52.38		94.9	84	116			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302158
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2_130219A

Sample ID: **1302155-02AMSD**	Batch ID: **56119**	TestNo: **SW8260C**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS2_130219A**	Analysis Date: **2/19/2013 5:51:00 PM**	Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0272	0.00602	0.0279	0	97.2	73	126	20.2	30	
Ethylbenzene	0.0262	0.00602	0.0279	0	93.7	74	127	22.9	30	
m,p-Xylene	0.0533	0.00602	0.0559	0	95.3	79	126	18.8	30	
o-Xylene	0.0253	0.00602	0.0279	0	90.7	77	125	21.1	30	
Toluene	0.0265	0.00602	0.0279	0	95.0	71	127	20.4	30	
Surr: 1,2-Dichloroethane-d4	62.8		60.23		104	52	149	0	0	
Surr: 4-Bromofluorobenzene	61.2		60.23		102	84	118	0	0	
Surr: Dibromofluoromethane	39.5		60.23		65.7	65	135	0	0	
Surr: Toluene-d8	57.8		60.23		95.9	84	116	0	0	

Sample ID: **LCS-56119 MEOH**	Batch ID: **56119**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GCMS2_130219A**	Analysis Date: **2/19/2013 6:22:00 PM**	Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0235	0.00500	0.0232	0	101	75	125			
Ethylbenzene	0.0222	0.00500	0.0232	0	95.9	75	125			
m,p-Xylene	0.0460	0.00500	0.0464	0	99.2	80	125			
o-Xylene	0.0217	0.00500	0.0232	0	93.6	77	125			
Toluene	0.0226	0.00500	0.0232	0	97.3	75	125			
Surr: 1,2-Dichloroethane-d4	51.3		50.00		103	52	149			
Surr: 4-Bromofluorobenzene	50.0		50.00		99.9	84	118			
Surr: Dibromofluoromethane	49.7		50.00		99.4	65	135			
Surr: Toluene-d8	47.6		50.00		95.2	84	116			

Sample ID: **MB-56119 MEOH**	Batch ID: **56119**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GCMS2_130219A**	Analysis Date: **2/19/2013 7:25:00 PM**	Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00500								
Ethylbenzene	ND	0.00500								
m,p-Xylene	0.00150	0.00500								
o-Xylene	ND	0.00500								
Toluene	ND	0.00500								
Surr: 1,2-Dichloroethane-d4	50.5		50.00		101	52	149			
Surr: 4-Bromofluorobenzene	50.6		50.00		101	84	118			
Surr: Dibromofluoromethane	49.5		50.00		99.1	65	135			
Surr: Toluene-d8	47.4		50.00		94.9	84	116			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302158
Project: N. Monument

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_130219A

The QC data in batch 56126 applies to the following samples: 1302158-01B, 1302158-02B, 1302158-03B, 1302158-04B, 1302158-05B, 1302158-06B

Sample ID: **1302149-18A-DUP** Batch ID: **56126** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_130219A** Analysis Date: **2/20/2013 8:48:00 AM** Prep Date: **2/19/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	13.7	0	0	14.34				4.73	30	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

March 04, 2013

Bill Green
Holly Energy Partners
1602 W. Main
Artesisa, NM 88210
TEL: (575) 748-8968
FAX (575) 748-4052

Order No.: 1302208

RE: North Monument (Holly Energy Partners)

Dear Bill Green:

DHL Analytical, Inc. received 9 sample(s) on 2/23/2013 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-12-9

Table of Contents

DHL ANALYTICAL

2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 58825

CHAIN-OF-CUSTODY

CLIENT: CRA
ADDRESS: 14998 W. 6th Ave #800, Golden, CO 80401
PHONE: 720.974.0935 FAX/E-MAIL: bstephenson@craworld.com
DATA REPORTED TO: Brad Stephenson
ADDITIONAL REPORT COPIES TO: jcovey@craworld.com

DATE: 2/22/13 PAGE 1 OF 1
PO #: DHL WORK ORDER #: 1302208
PROJECT LOCATION OR NAME: North Monument (Holly Energy Partners)
CLENT PROJECT #: COLLECTOR:

Authorize 5% surcharge for TRRP Report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021] / TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ / GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ / VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ / SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ / 8081 PEST ☐ 608 PEST/PCB ☐ 8270 PEST ☐ / 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ / 8321 HERB ☐ 8330 EXPL ☐ PERCHLORATE ☐ / METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ / RCRA ☐ TX11 ☐ ____ ☐ / PH ☐ HEX CHROM ☐ ALKALINITY ☐ / CHLORIDE ☐ ANIONS ____ ☐ / TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ / TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ / RCI ☐ TOX ☐ FLASHPOINT ☐ / TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ / BTEX 8260 / TPH GRO/DRO 8015 / PAH 8270 / RCRA Metals 6010/6020

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	ICE	BTEX 8260	TPH GRO/DRO 8015	PAH 8270	RCRA Metals 6010/6020	FIELD NOTES
MRW-1/18-20	01	2.19.13	1355	S	4oz Jar	2	X	X	X			SAMPLES TAKEN 2/19 → 2/22 CHECK HOLDING TIMES
MRW-2/18-20	02	2.19.13	1120	↓	↓	↓	↓	↓	↓			
MRW-3/20-22	03	2.19.13	0825	↓	↓	↓	↓	↓	↓			
MRW-11/22-24	04	2.19.13	1600	↓	↓	↓	↓	↓	↓			
MRW-12/20-22	05	2.20.13	0920	↓	↓	↓	↓	↓	↓			
MRW-13/20-22	06	2.20.13	1110	↓	↓	↓	↓	↓	↓			
MRW-14/20-22	07	2.20.13	1340	↓	↓	↓	↓	↓	↓			
TRIP BLANK	08	2.19.13	0800	W	40mL VOA	2	↓	X				
NM-WCS-1	09	2.21.13	1200	S	4oz Jar	3	↓	X		X	X	

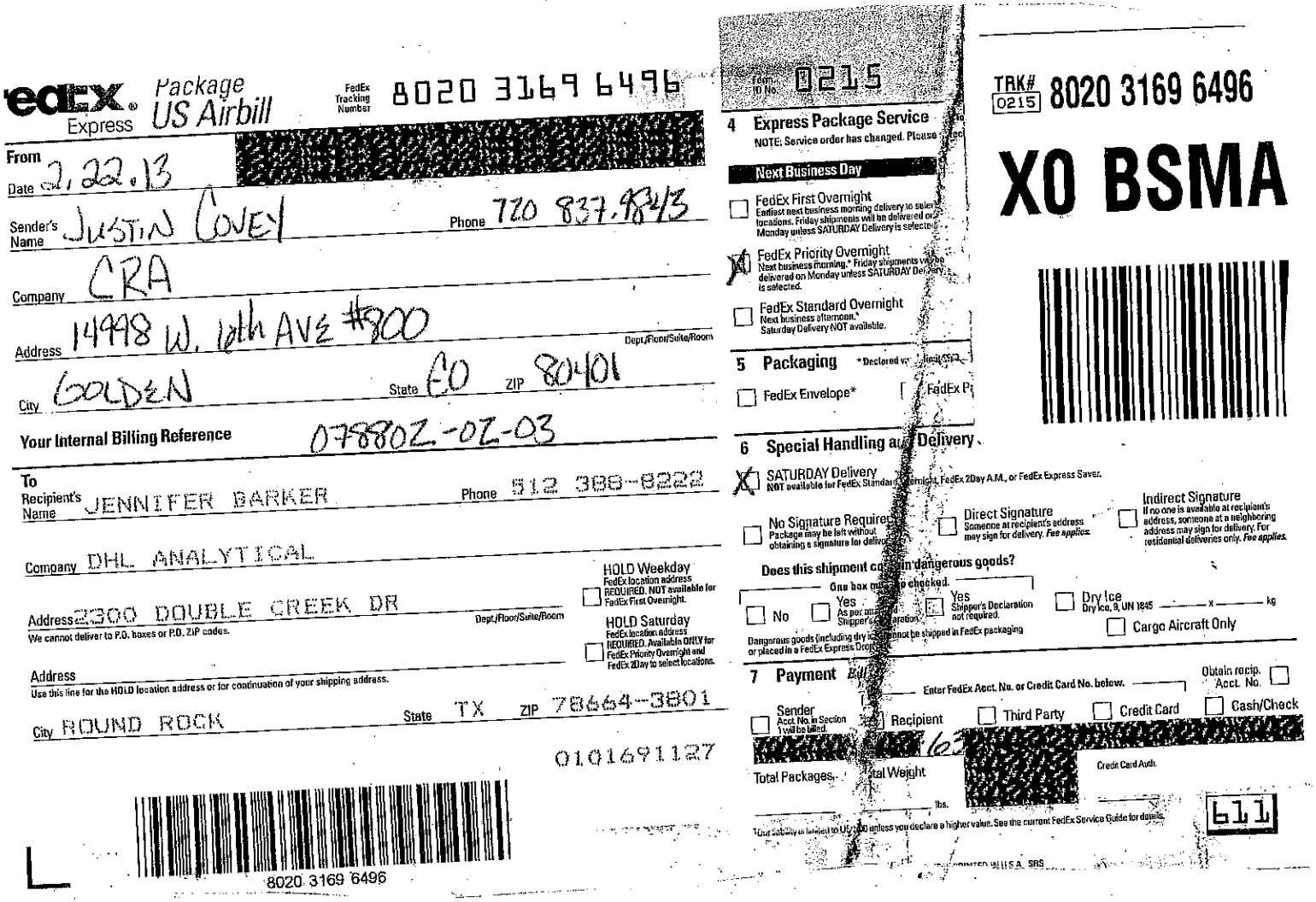
TOTAL

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	2.22.13/1300	FEDEX
FedEx	2/23/13 1030	[signature]

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☐
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 2.9 THERM #: 57
CUSTODY SEALS: ☐ BROKEN ☑ INTACT ☐ NOT USED
☑ CARRIER BILL #: FedEx
☐ APC DELIVERY
☐ HAND DELIVERED



FedEx Express Package US Airbill

FedEx Tracking Number 8020 3169 6496

From Date 2.22.13

Sender's Name JUSTIN COVEY Phone 720 837.9243

Company CRA

Address 14998 W. 16th AVE #800 Dept/Floor/Suite/Room

City GOLDEN State CO ZIP 80401

Your Internal Billing Reference 078802-02-03

To Recipient's Name JENNIFER BARKER Phone 512 388-8222

Company DHL ANALYTICAL

Address 2300 DOUBLE CREEK DR Dept/Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City ROUND ROCK State TX ZIP 78664-3801

0101691127

8020 3169 6496

From ID No. 0215

4 Express Package Service

NOTE: Service order has changed. Please

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

X FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

5 Packaging

FedEx Envelope*

6 Special Handling and Delivery

X SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

No

Yes
As per attached Shipper's Declaration

Yes
Shipper's Declaration not required.

Dry Ice
Dry Ice, 9, UN 1845 ____ x ____ kg

Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop

7 Payment

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No.

Sender Acct. No. in Section 1 will be billed.

Recipient

Third Party

Credit Card

Cash/Check

63

Total Packages

Total Weight lbs.

Credit Card Auth.

611

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

TRK# 0215 8020 3169 6496

XO BSMA

CUSTODY SEAL

DATE 2.22.13

SIGNATURE

QEC Quality Environmental Containers 800-255-3950 · 304-255-3900

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name **Holly Energy Partners**

Date Received: **2/23/2013**

Work Order Number **1302208**

Received by **JB**

Checklist completed by: _____ 2/25/2013
Signature | Date

Reviewed by SS 2/25/2013
Initials | Date

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	2.9 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Page 1 of 1

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT: Holly Energy Partners
Project: North Monument (Holly Energy Partners)
Lab Order: 1302208

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, Standard Methods and ASTM D2216.

All method blanks, sample duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Volatiles Organics Analysis, the recoveries of surrogates 4-Bromofluorobenzene and/or Toluene-d8 for Samples MRW-1/18-20, MRW-3/20-22, MRW-12/20-22, MRW-14/20-22 and NM-WCS-1 were above the method control limits. These are flagged accordingly in the Analytical Data Report. The remaining surrogates for these samples were within method control limits. No further corrective actions were taken.

For DRO Analysis, the recovery of surrogate Octacosane for Samples MRW-12/20-22, MRW-14/20-22 and NM-WCS-1 was above the method control limits. Additionally, the recovery of surrogate Isopropylbenzene for Sample MRW-13/20-22 was above the method control limits. These are flagged accordingly in the Analytical Data Report. The remaining surrogate for these samples were within method control limits. No further corrective actions were taken.

For Metals Analysis, the recovery of Barium for the Matrix Spike and the RPD of the Matrix Spike Duplicate (1302208-09 MS/MSD) were above the method control limits. These were flagged accordingly in the QC Summary Report. This analyte is within method control limits in the associated LCS. No further corrective action was taken.

For Metals Analysis, the RPD of Selenium for the Serial Dilution (1302208-09 SD) was above the method control limits. This was flagged accordingly in the QC Summary Report. This analyte is within method control limits in the associated Post Digestion Spike. No further corrective action was taken.

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-1/18-20
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-01
Project No:		**Collection Date:**	02/19/13 01:55 PM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	413	17.2	57.5		mg/Kg-dry	5	02/28/13 09:35 AM
Surr: Isopropylbenzene	78.9	0	47-142		%REC	5	02/28/13 09:35 AM
Surr: Octacosane	137	0	25-162		%REC	5	02/28/13 09:35 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	76.7	2.42	4.84		mg/Kg-dry	20	02/27/13 02:30 PM
Surr: Tetrachlorethene	118	0	70-134		%REC	20	02/27/13 02:30 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.00103	0.00516		mg/Kg-dry	1	02/27/13 11:39 AM
Ethylbenzene	0.0647	0.0605	0.303	J	mg/Kg-dry	50	02/27/13 07:00 PM
m,p-Xylene	0.473	0.0605	0.303		mg/Kg-dry	50	02/27/13 07:00 PM
o-Xylene	0.0175	0.00103	0.00516		mg/Kg-dry	1	02/27/13 11:39 AM
Toluene	ND	0.00103	0.00516		mg/Kg-dry	1	02/27/13 11:39 AM
Surr: 1,2-Dichloroethane-d4	108	0	52-149		%REC	1	02/27/13 11:39 AM
Surr: 1,2-Dichloroethane-d4	98.9	0	52-149		%REC	50	02/27/13 07:00 PM
Surr: 4-Bromofluorobenzene	159	0	84-118	S	%REC	1	02/27/13 11:39 AM
Surr: 4-Bromofluorobenzene	117	0	84-118		%REC	50	02/27/13 07:00 PM
Surr: Dibromofluoromethane	97.3	0	65-135		%REC	1	02/27/13 11:39 AM
Surr: Dibromofluoromethane	94.5	0	65-135		%REC	50	02/27/13 07:00 PM
Surr: Toluene-d8	131	0	84-116	S	%REC	1	02/27/13 11:39 AM
Surr: Toluene-d8	115	0	84-116		%REC	50	02/27/13 07:00 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	17.4	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-2/18-20
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-02
Project No:		**Collection Date:**	02/19/13 11:20 AM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	392	15.6	52.1		mg/Kg-dry	5	02/28/13 10:17 AM
Surr: Isopropylbenzene	55.1	0	47-142		%REC	5	02/28/13 10:17 AM
Surr: Octacosane	140	0	25-162		%REC	5	02/28/13 10:17 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	26.6	2.11	4.21		mg/Kg-dry	20	02/27/13 02:55 PM
Surr: Tetrachlorethene	118	0	70-134		%REC	20	02/27/13 02:55 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000932	0.00466		mg/Kg-dry	1	02/27/13 12:47 PM
Ethylbenzene	0.00677	0.000932	0.00466		mg/Kg-dry	1	02/27/13 12:47 PM
m,p-Xylene	0.0334	0.000932	0.00466		mg/Kg-dry	1	02/27/13 12:47 PM
o-Xylene	0.00324	0.000932	0.00466	J	mg/Kg-dry	1	02/27/13 12:47 PM
Toluene	ND	0.000932	0.00466		mg/Kg-dry	1	02/27/13 12:47 PM
Surr: 1,2-Dichloroethane-d4	97.5	0	52-149		%REC	1	02/27/13 12:47 PM
Surr: 4-Bromofluorobenzene	113	0	84-118		%REC	1	02/27/13 12:47 PM
Surr: Dibromofluoromethane	92.7	0	65-135		%REC	1	02/27/13 12:47 PM
Surr: Toluene-d8	111	0	84-116		%REC	1	02/27/13 12:47 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	5.10	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-3/20-22
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-03
Project No:		**Collection Date:**	02/19/13 08:25 AM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	309	3.75	12.5		mg/Kg-dry	1	02/27/13 05:42 PM
Surr: Isopropylbenzene	64.6	0	47-142		%REC	1	02/27/13 05:42 PM
Surr: Octacosane	149	0	25-162		%REC	1	02/27/13 05:42 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	66.1	2.67	5.35		mg/Kg-dry	20	02/27/13 03:20 PM
Surr: Tetrachlorethene	117	0	70-134		%REC	20	02/27/13 03:20 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.00118	0.00589		mg/Kg-dry	1	02/27/13 02:20 PM
Ethylbenzene	0.0439	0.00118	0.00589		mg/Kg-dry	1	02/27/13 02:20 PM
m,p-Xylene	0.159	0.00118	0.00589		mg/Kg-dry	1	02/27/13 02:20 PM
o-Xylene	0.00524	0.00118	0.00589	J	mg/Kg-dry	1	02/27/13 02:20 PM
Toluene	ND	0.00118	0.00589		mg/Kg-dry	1	02/27/13 02:20 PM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	02/27/13 02:20 PM
Surr: 4-Bromofluorobenzene	116	0	84-118		%REC	1	02/27/13 02:20 PM
Surr: Dibromofluoromethane	94.3	0	65-135		%REC	1	02/27/13 02:20 PM
Surr: Toluene-d8	117	0	84-116	S	%REC	1	02/27/13 02:20 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	25.2	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-11/22-24
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-04
Project No:		**Collection Date:**	02/19/13 04:00 PM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	193	3.09	10.3		mg/Kg-dry	1	02/27/13 05:15 PM
Surr: Isopropylbenzene	53.1	0	47-142		%REC	1	02/27/13 05:15 PM
Surr: Octacosane	111	0	25-162		%REC	1	02/27/13 05:15 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	1.22	0.100	0.200		mg/Kg-dry	1	02/27/13 12:12 PM
Surr: Tetrachlorethene	90.8	0	70-134		%REC	1	02/27/13 12:12 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.00101	0.00503		mg/Kg-dry	1	02/27/13 11:08 AM
Ethylbenzene	ND	0.00101	0.00503		mg/Kg-dry	1	02/27/13 11:08 AM
m,p-Xylene	0.00109	0.00101	0.00503	J	mg/Kg-dry	1	02/27/13 11:08 AM
o-Xylene	ND	0.00101	0.00503		mg/Kg-dry	1	02/27/13 11:08 AM
Toluene	ND	0.00101	0.00503		mg/Kg-dry	1	02/27/13 11:08 AM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	02/27/13 11:08 AM
Surr: 4-Bromofluorobenzene	109	0	84-118		%REC	1	02/27/13 11:08 AM
Surr: Dibromofluoromethane	94.0	0	65-135		%REC	1	02/27/13 11:08 AM
Surr: Toluene-d8	111	0	84-116		%REC	1	02/27/13 11:08 AM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	5.14	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-12/20-22
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-05
Project No:		**Collection Date:**	02/20/13 09:20 AM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	978	35.3	118		mg/Kg-dry	10	02/28/13 10:26 AM
Surr: Isopropylbenzene	78.0	0	47-142		%REC	10	02/28/13 10:26 AM
Surr: Octacosane	214	0	25-162	S	%REC	10	02/28/13 10:26 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	111	2.41	4.81		mg/Kg-dry	20	02/27/13 03:47 PM
Surr: Tetrachlorethene	112	0	70-134		%REC	20	02/27/13 03:47 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.00110	0.00549		mg/Kg-dry	1	02/27/13 02:52 PM
Ethylbenzene	1.15	0.0602	0.301		mg/Kg-dry	50	02/27/13 07:32 PM
m,p-Xylene	3.70	0.0602	0.301		mg/Kg-dry	50	02/27/13 07:32 PM
o-Xylene	0.630	0.0602	0.301		mg/Kg-dry	50	02/27/13 07:32 PM
Toluene	ND	0.00110	0.00549		mg/Kg-dry	1	02/27/13 02:52 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	02/27/13 02:52 PM
Surr: 1,2-Dichloroethane-d4	100	0	52-149		%REC	50	02/27/13 07:32 PM
Surr: 4-Bromofluorobenzene	121	0	84-118	S	%REC	50	02/27/13 07:32 PM
Surr: 4-Bromofluorobenzene	347	0	84-118	S	%REC	1	02/27/13 02:52 PM
Surr: Dibromofluoromethane	95.9	0	65-135		%REC	1	02/27/13 02:52 PM
Surr: Dibromofluoromethane	94.6	0	65-135		%REC	50	02/27/13 07:32 PM
Surr: Toluene-d8	275	0	84-116	S	%REC	1	02/27/13 02:52 PM
Surr: Toluene-d8	118	0	84-116	S	%REC	50	02/27/13 07:32 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	16.9	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-13/20-22
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-06
Project No:		**Collection Date:**	02/20/13 11:10 AM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	19.6	3.30	11.0		mg/Kg-dry	1	02/27/13 06:00 PM
Surr: Isopropylbenzene	39.3	0	47-142	S	%REC	1	02/27/13 06:00 PM
Surr: Octacosane	97.8	0	25-162		%REC	1	02/27/13 06:00 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	ND	0.113	0.226		mg/Kg-dry	1	02/27/13 12:37 PM
Surr: Tetrachlorethene	117	0	70-134		%REC	1	02/27/13 12:37 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000951	0.00476		mg/Kg-dry	1	02/27/13 01:17 PM
Ethylbenzene	ND	0.000951	0.00476		mg/Kg-dry	1	02/27/13 01:17 PM
m,p-Xylene	ND	0.000951	0.00476		mg/Kg-dry	1	02/27/13 01:17 PM
o-Xylene	ND	0.000951	0.00476		mg/Kg-dry	1	02/27/13 01:17 PM
Toluene	ND	0.000951	0.00476		mg/Kg-dry	1	02/27/13 01:17 PM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	02/27/13 01:17 PM
Surr: 4-Bromofluorobenzene	108	0	84-118		%REC	1	02/27/13 01:17 PM
Surr: Dibromofluoromethane	94.4	0	65-135		%REC	1	02/27/13 01:17 PM
Surr: Toluene-d8	110	0	84-116		%REC	1	02/27/13 01:17 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	12.0	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	MRW-14/20-22
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-07
Project No:		**Collection Date:**	02/20/13 01:40 PM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	6620	360	1200		mg/Kg-dry	100	02/28/13 10:35 AM
Surr: Isopropylbenzene	47.2	0	47-142		%REC	100	02/28/13 10:35 AM
Surr: Octacosane	820	0	25-162	S	%REC	100	02/28/13 10:35 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	1830	24.7	49.3		mg/Kg-dry	200	02/27/13 05:30 PM
Surr: Tetrachlorethene	132	0	70-134		%REC	200	02/27/13 05:30 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	0.179	0.00115	0.00576		mg/Kg-dry	1	02/27/13 03:23 PM
Ethylbenzene	11.2	0.0616	0.308		mg/Kg-dry	50	02/27/13 08:03 PM
m,p-Xylene	30.9	0.0616	0.308		mg/Kg-dry	50	02/27/13 08:03 PM
o-Xylene	1.75	0.0616	0.308		mg/Kg-dry	50	02/27/13 08:03 PM
Toluene	ND	0.00115	0.00576		mg/Kg-dry	1	02/27/13 03:23 PM
Surr: 1,2-Dichloroethane-d4	105	0	52-149		%REC	1	02/27/13 03:23 PM
Surr: 1,2-Dichloroethane-d4	98.0	0	52-149		%REC	50	02/27/13 08:03 PM
Surr: 4-Bromofluorobenzene	149	0	84-118	S	%REC	50	02/27/13 08:03 PM
Surr: 4-Bromofluorobenzene	789	0	84-118	S	%REC	1	02/27/13 03:23 PM
Surr: Dibromofluoromethane	92.7	0	65-135		%REC	1	02/27/13 03:23 PM
Surr: Dibromofluoromethane	93.1	0	65-135		%REC	50	02/27/13 08:03 PM
Surr: Toluene-d8	791	0	84-116	S	%REC	1	02/27/13 03:23 PM
Surr: Toluene-d8	169	0	84-116	S	%REC	50	02/27/13 08:03 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	18.9	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	TRIP BLANK
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-08
Project No:		**Collection Date:**	02/19/13 08:00 AM
Lab Order:	1302208	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.000200	0.00100		mg/L	1	02/26/13 01:41 PM
Ethylbenzene	ND	0.000300	0.00100		mg/L	1	02/26/13 01:41 PM
m,p-Xylene	ND	0.000600	0.00200		mg/L	1	02/26/13 01:41 PM
o-Xylene	ND	0.000300	0.00100		mg/L	1	02/26/13 01:41 PM
Toluene	ND	0.000600	0.00200		mg/L	1	02/26/13 01:41 PM
Surr: 1,2-Dichloroethane-d4	85.7	0	72-119		%REC	1	02/26/13 01:41 PM
Surr: 4-Bromofluorobenzene	95.6	0	76-119		%REC	1	02/26/13 01:41 PM
Surr: Dibromofluoromethane	97.3	0	85-115		%REC	1	02/26/13 01:41 PM
Surr: Toluene-d8	103	0	81-120		%REC	1	02/26/13 01:41 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *04-Mar-13*

CLIENT:	Holly Energy Partners	**Client Sample ID:**	NM-WCS-1
Project:	North Monument (Holly Energy Partners)	**Lab ID:**	1302208-09
Project No:		**Collection Date:**	02/21/13 12:00 PM
Lab Order:	1302208	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AJR**
TPH-DRO C10-C28	525	35.1	117		mg/Kg-dry	10	02/27/13 06:27 PM
Surr: Isopropylbenzene	78.8	0	47-142		%REC	10	02/27/13 06:27 PM
Surr: Octacosane	162	0	25-162	S	%REC	10	02/27/13 06:27 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **DEW**
Gasoline Range Organics	48.1	5.85	11.7		mg/Kg-dry	50	02/27/13 04:13 PM
Surr: Tetrachlorethene	91.3	0	70-134		%REC	50	02/27/13 04:13 PM
TOTAL MERCURY: SOIL/SOLID		**SW7471B**					Analyst: **LM**
Mercury	ND	0.0169	0.0423		mg/Kg-dry	1	02/27/13 02:06 PM
TRACE METALS: ICP-MS - SOLID		**SW6020A**					Analyst: **SW**
Arsenic	3.39	0.557	1.11		mg/Kg-dry	5	02/27/13 01:33 PM
Barium	187	0.557	2.23		mg/Kg-dry	5	02/27/13 01:33 PM
Cadmium	0.154	0.111	0.334	J	mg/Kg-dry	5	02/27/13 01:33 PM
Chromium	10.1	0.557	2.23		mg/Kg-dry	5	02/27/13 01:33 PM
Lead	4.23	0.111	0.334		mg/Kg-dry	5	02/27/13 01:33 PM
Selenium	0.828	0.167	0.557		mg/Kg-dry	5	02/27/13 01:33 PM
Silver	ND	0.111	0.223		mg/Kg-dry	5	02/27/13 01:33 PM
8260 SOIL VOLATILES BY GC/MS		**SW8260C**					Analyst: **KL**
Benzene	ND	0.00101	0.00507		mg/Kg-dry	1	02/27/13 01:49 PM
Ethylbenzene	0.0107	0.00101	0.00507		mg/Kg-dry	1	02/27/13 01:49 PM
m,p-Xylene	0.0304	0.00101	0.00507		mg/Kg-dry	1	02/27/13 01:49 PM
o-Xylene	0.00433	0.00101	0.00507	J	mg/Kg-dry	1	02/27/13 01:49 PM
Toluene	ND	0.00101	0.00507		mg/Kg-dry	1	02/27/13 01:49 PM
Surr: 1,2-Dichloroethane-d4	106	0	52-149		%REC	1	02/27/13 01:49 PM
Surr: 4-Bromofluorobenzene	121	0	84-118	S	%REC	1	02/27/13 01:49 PM
Surr: Dibromofluoromethane	96.0	0	65-135		%REC	1	02/27/13 01:49 PM
Surr: Toluene-d8	114	0	84-116		%REC	1	02/27/13 01:49 PM
PERCENT MOISTURE		**D2216**					Analyst: **JCG**
Percent Moisture	14.5	0	0		WT%	1	02/27/13 08:45 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_130227A

The QC data in batch 56224 applies to the following samples: 1302208-01B, 1302208-02B, 1302208-03B, 1302208-04B, 1302208-05B, 1302208-06B, 1302208-07B, 1302208-09B

Sample ID: **LCS-56224** Batch ID: **56224** TestNo: **M8015D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC15_130227A** Analysis Date: **2/27/2013 4:30:58 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	108	10.0	125.0	0	86.2	50	114			
Surr: Isopropylbenzene	4.20		7.500		56.0	47	142			
Surr: Octacosane	6.22		7.500		82.9	25	162			

Sample ID: **1302208-04BMS** Batch ID: **56224** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GC15_130227A** Analysis Date: **2/27/2013 4:39:56 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	293	10.5	131.4	192.7	76.7	50	114			
Surr: Isopropylbenzene	4.13		7.883		52.3	47	142			
Surr: Octacosane	8.61		7.883		109	25	162			

Sample ID: **1302208-04BMSD** Batch ID: **56224** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **GC15_130227A** Analysis Date: **2/27/2013 4:48:55 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	316	10.3	129.1	192.7	95.8	50	114	7.51	30	
Surr: Isopropylbenzene	4.14		7.744		53.4	47	142	0	0	
Surr: Octacosane	8.67		7.744		112	25	162	0	0	

Sample ID: **MB-56224** Batch ID: **56224** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC15_130227A** Analysis Date: **2/27/2013 5:06:52 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	ND	10.0								
Surr: Isopropylbenzene	4.59		7.500		61.2	47	142			
Surr: Octacosane	6.30		7.500		84.0	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_130227A

The QC data in batch 56219 applies to the following samples: 1302208-01B, 1302208-02B, 1302208-03B, 1302208-04B, 1302208-05B, 1302208-06B, 1302208-07B, 1302208-09B

Sample ID: **LCS-56219 MEOH** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 9:56:23 AM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.79	0.200	5.000	0	95.9	68	126			
Surr: Tetrachlorethene	0.222		0.2000		111	70	134			

Sample ID: **LCS-56219** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 10:54:18 AM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.72	0.200	5.000	0	94.5	68	126			
Surr: Tetrachlorethene	0.157		0.2000		78.5	70	134			

Sample ID: **MB-56219 MEOH** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 11:46:52 AM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.197		0.2000		98.7	70	134			

Sample ID: **1302208-06BMS** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 4:38:34 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	5.78	0.211	5.269	0	110	68	126			
Surr: Tetrachlorethene	0.212		0.2107		100	70	134			

Sample ID: **1302208-06BMSD** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 5:04:28 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	5.18	0.200	4.991	0	104	68	126	11.0	30	
Surr: Tetrachlorethene	0.221		0.1996		111	70	134	0	0	

Sample ID: **MB-56219** Batch ID: **56219** TestNo: **M8015V** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC4_130227A** Analysis Date: **2/27/2013 6:23:18 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.148		0.2000		73.9	70	134			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC_HG_130227B

The QC data in batch 56196 applies to the following samples: 1302208-09C

Sample ID: **MB-56196**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 1:49:52 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.0400								

Sample ID: **LCS-56196**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 1:51:58 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.223	0.0400	0.2000	0	112	85	115			

Sample ID: **LCSD-56196**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg**
SampType: **LCSD**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 1:54:00 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.225	0.0400	0.2000	0	112	85	115	0.893	25	

Sample ID: **1302210-21A SD**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **SD**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 1:58:05 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0	0.211	0	0				0	10	

Sample ID: **1302210-21A PDS**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **PDS**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 2:00:06 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.259	0.0421	0.2634	0	98.4	85	115			

Sample ID: **1302210-21A MS**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 2:02:08 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.245	0.0425	0.2127	0	115	80	120			

Sample ID: **1302210-21A MSD**	Batch ID: **56196**	TestNo: **SW7471B**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **CETAC_HG_130227B**	Analysis Date: **2/27/2013 2:04:50 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.240	0.0419	0.2097	0	114	80	120	1.85	25	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: **ICP-MS2_130227A**

The QC data in batch 56193 applies to the following samples: 1302208-09C

Sample ID: **MB-56193** Batch ID: **56193** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **MBLK** Run ID: **ICP-MS2_130227A** Analysis Date: **2/27/2013 12:52:00 PM** Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	1.00								
Barium	ND	2.00								
Cadmium	ND	0.300								
Chromium	ND	2.00								
Lead	ND	0.300								
Selenium	ND	0.500								
Silver	ND	0.200								

Sample ID: **LCS-56193** Batch ID: **56193** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **LCS** Run ID: **ICP-MS2_130227A** Analysis Date: **2/27/2013 1:15:00 PM** Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	51.8	1.00	50.00	0	104	80	120			
Barium	50.4	2.00	50.00	0	101	80	120			
Cadmium	50.5	0.300	50.00	0	101	80	120			
Chromium	57.1	2.00	50.00	0	114	80	120			
Lead	52.1	0.300	50.00	0	104	80	120			
Selenium	49.8	0.500	50.00	0	99.6	80	120			
Silver	50.9	0.200	50.00	0	102	80	120			

Sample ID: **LCSD-56193** Batch ID: **56193** TestNo: **SW6020A** Units: **mg/Kg**
SampType: **LCSD** Run ID: **ICP-MS2_130227A** Analysis Date: **2/27/2013 1:21:00 PM** Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	51.9	1.00	50.00	0	104	80	120	0.193	20	
Barium	52.7	2.00	50.00	0	105	80	120	4.56	20	
Cadmium	52.8	0.300	50.00	0	106	80	120	4.36	20	
Chromium	55.8	2.00	50.00	0	112	80	120	2.35	20	
Lead	54.2	0.300	50.00	0	108	80	120	3.91	20	
Selenium	49.8	0.500	50.00	0	99.6	80	120	0.050	20	
Silver	52.8	0.200	50.00	0	106	80	120	3.66	20	

Sample ID: **1302208-09C SD** Batch ID: **56193** TestNo: **SW6020A** Units: **mg/Kg-dry**
SampType: **SD** Run ID: **ICP-MS2_130227A** Analysis Date: **2/27/2013 1:39:00 PM** Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	3.31	5.57	0	3.386				2.41	10	
Barium	175	11.1	0	187.5				6.93	10	
Cadmium	0	1.67	0	0.1536				0	10	
Chromium	10.4	11.1	0	10.11				2.93	10	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS2_130227A

Sample ID: **1302208-09C SD**	Batch ID: **56193**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **SD**	Run ID: **ICP-MS2_130227A**	Analysis Date: **2/27/2013 1:39:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	4.19	1.67	0	4.230				1.06	10	
Selenium	1.22	2.78	0	0.8282				38.1	10	R
Silver	0	1.11	0	0				0	10	

Sample ID: **1302208-09C PDS**	Batch ID: **56193**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **PDS**	Run ID: **ICP-MS2_130227A**	Analysis Date: **2/27/2013 2:50:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	57.6	1.11	55.70	3.386	97.3	80	120			
Barium	254	2.23	55.70	187.5	119	80	120			
Cadmium	53.7	0.334	55.70	0.1536	96.1	80	120			
Chromium	63.8	2.23	55.70	10.11	96.3	80	120			
Lead	62.0	0.334	55.70	4.230	104	80	120			
Selenium	52.0	0.557	55.70	0.8282	91.9	80	120			
Silver	53.8	0.223	55.70	0	96.6	80	120			

Sample ID: **1302208-09C MS**	Batch ID: **56193**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **ICP-MS2_130227A**	Analysis Date: **2/27/2013 2:55:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	60.3	1.10	55.17	3.386	103	80	120			
Barium	372	2.21	55.17	187.5	335	80	120			S
Cadmium	56.9	0.331	55.17	0.1536	103	80	120			
Chromium	65.8	2.21	55.17	10.11	101	80	120			
Lead	66.4	0.331	55.17	4.230	113	80	120			
Selenium	53.8	0.552	55.17	0.8282	96.0	80	120			
Silver	55.3	0.221	55.17	0	100	80	120			

Sample ID: **1302208-09C MSD**	Batch ID: **56193**	TestNo: **SW6020A**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **ICP-MS2_130227A**	Analysis Date: **2/27/2013 3:01:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	60.7	1.12	56.23	3.386	102	80	120	0.708	20	
Barium	241	2.25	56.23	187.5	94.7	80	120	43.0	20	R
Cadmium	56.3	0.337	56.23	0.1536	99.9	80	120	0.997	20	
Chromium	67.6	2.25	56.23	10.11	102	80	120	2.70	20	
Lead	66.5	0.337	56.23	4.230	111	80	120	0.186	20	
Selenium	54.7	0.562	56.23	0.8282	95.9	80	120	1.75	20	
Silver	55.2	0.225	56.23	0	98.2	80	120	0.110	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130227A

The QC data in batch 56206 applies to the following samples: 1302208-01A, 1302208-02A, 1302208-03A, 1302208-04A, 1302208-05A, 1302208-06A, 1302208-07A, 1302208-09A

Sample ID: **LCS-56206** Batch ID: **56206** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **LCS** Run ID: **GCMS1_130227A** Analysis Date: **2/27/2013 9:59:00 AM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0237	0.00500	0.0232	0	102	75	125			
Ethylbenzene	0.0266	0.00500	0.0232	0	115	75	125			
m,p-Xylene	0.0532	0.00500	0.0464	0	115	80	125			
o-Xylene	0.0253	0.00500	0.0232	0	109	77	125			
Toluene	0.0237	0.00500	0.0232	0	102	75	125			
Surr: 1,2-Dichloroethane-d4	54.0		50.00		108	52	149			
Surr: 4-Bromofluorobenzene	53.1		50.00		106	84	118			
Surr: Dibromofluoromethane	48.8		50.00		97.6	65	135			
Surr: Toluene-d8	53.7		50.00		107	84	116			

Sample ID: **MB-56206** Batch ID: **56206** TestNo: **SW8260C** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GCMS1_130227A** Analysis Date: **2/27/2013 10:34:00 AM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00500								
Ethylbenzene	ND	0.00500								
m,p-Xylene	ND	0.00500								
o-Xylene	ND	0.00500								
Toluene	ND	0.00500								
Surr: 1,2-Dichloroethane-d4	51.9		50.00		104	52	149			
Surr: 4-Bromofluorobenzene	54.2		50.00		108	84	118			
Surr: Dibromofluoromethane	47.0		50.00		94.1	65	135			
Surr: Toluene-d8	55.6		50.00		111	84	116			

Sample ID: **1302208-04AMS** Batch ID: **56206** TestNo: **SW8260C** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GCMS1_130227A** Analysis Date: **2/27/2013 4:55:00 PM** Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0187	0.00492	0.0228	0	81.9	73	126			
Ethylbenzene	0.0209	0.00492	0.0228	0	91.8	74	127			
m,p-Xylene	0.0423	0.00492	0.0456	0.00109	90.4	79	126			
o-Xylene	0.0200	0.00492	0.0228	0	87.5	77	125			
Toluene	0.0187	0.00492	0.0228	0	82.2	71	127			
Surr: 1,2-Dichloroethane-d4	49.6		49.17		101	52	149			
Surr: 4-Bromofluorobenzene	54.1		49.17		110	84	118			
Surr: Dibromofluoromethane	46.9		49.17		95.5	65	135			
Surr: Toluene-d8	53.4		49.17		109	84	116			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1_130227A

Sample ID: **1302208-04AMSD**	Batch ID: **56206**	TestNo: **SW8260C**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GCMS1_130227A**	Analysis Date: **2/27/2013 5:26:00 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0180	0.00476	0.0221	0	81.5	73	126	3.80	30	
Ethylbenzene	0.0199	0.00476	0.0221	0	90.2	74	127	5.11	30	
m,p-Xylene	0.0401	0.00476	0.0441	0.00109	88.4	79	126	5.40	30	
o-Xylene	0.0192	0.00476	0.0221	0	86.9	77	125	4.00	30	
Toluene	0.0177	0.00476	0.0221	0	80.1	71	127	5.91	30	
Surr: 1,2-Dichloroethane-d4	47.6		47.57		100	52	149	0	0	
Surr: 4-Bromofluorobenzene	52.0		47.57		109	84	118	0	0	
Surr: Dibromofluoromethane	45.3		47.57		95.2	65	135	0	0	
Surr: Toluene-d8	50.8		47.57		107	84	116	0	0	

Sample ID: **LCS-56206 MEOH**	Batch ID: **56206**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GCMS1_130227A**	Analysis Date: **2/27/2013 5:57:00 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0202	0.00500	0.0232	0	87.2	75	125			
Ethylbenzene	0.0220	0.00500	0.0232	0	94.7	75	125			
m,p-Xylene	0.0439	0.00500	0.0464	0	94.7	80	125			
o-Xylene	0.0221	0.00500	0.0232	0	95.2	77	125			
Toluene	0.0199	0.00500	0.0232	0	85.8	75	125			
Surr: 1,2-Dichloroethane-d4	51.1		50.00		102	52	149			
Surr: 4-Bromofluorobenzene	53.9		50.00		108	84	118			
Surr: Dibromofluoromethane	46.7		50.00		93.4	65	135			
Surr: Toluene-d8	55.4		50.00		111	84	116			

Sample ID: **MB-56206 MEOH**	Batch ID: **56206**	TestNo: **SW8260C**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GCMS1_130227A**	Analysis Date: **2/27/2013 6:29:00 PM**	Prep Date: **2/27/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00500								
Ethylbenzene	ND	0.00500								
m,p-Xylene	ND	0.00500								
o-Xylene	ND	0.00500								
Toluene	ND	0.00500								
Surr: 1,2-Dichloroethane-d4	47.8		50.00		95.6	52	149			
Surr: 4-Bromofluorobenzene	54.8		50.00		110	84	118			
Surr: Dibromofluoromethane	46.2		50.00		92.3	65	135			
Surr: Toluene-d8	56.5		50.00		113	84	116			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_130226A

The QC data in batch 56211 applies to the following samples: 1302208-08A

Sample ID: **LCS-56211**	Batch ID: **56211**	TestNo: **SW8260C**	Units: **mg/L**
SampType: **LCS**	Run ID: **GCMS5_130226A**	Analysis Date: **2/26/2013 11:36:00 AM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0230	0.00100	0.0232	0	99.1	81	122			
Ethylbenzene	0.0253	0.00100	0.0232	0	109	80	120			
m,p-Xylene	0.0511	0.00200	0.0464	0	110	80	120			
o-Xylene	0.0244	0.00100	0.0232	0	105	80	120			
Toluene	0.0233	0.00200	0.0232	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	171		200.0		85.3	72	119			
Surr: 4-Bromofluorobenzene	190		200.0		95.0	76	119			
Surr: Dibromofluoromethane	192		200.0		96.1	85	115			
Surr: Toluene-d8	206		200.0		103	81	120			

Sample ID: **MB-56211**	Batch ID: **56211**	TestNo: **SW8260C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **GCMS5_130226A**	Analysis Date: **2/26/2013 12:00:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Ethylbenzene	ND	0.00100								
m,p-Xylene	ND	0.00200								
o-Xylene	ND	0.00100								
Toluene	ND	0.00200								
Surr: 1,2-Dichloroethane-d4	170		200.0		84.9	72	119			
Surr: 4-Bromofluorobenzene	192		200.0		96.1	76	119			
Surr: Dibromofluoromethane	192		200.0		96.1	85	115			
Surr: Toluene-d8	206		200.0		103	81	120			

Sample ID: **1302207-02AMS**	Batch ID: **56211**	TestNo: **SW8260C**	Units: **mg/L**
SampType: **MS**	Run ID: **GCMS5_130226A**	Analysis Date: **2/26/2013 2:33:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.238	0.0100	0.232	0	102	81	120			
Ethylbenzene	0.258	0.0100	0.232	0	111	80	120			
m,p-Xylene	0.535	0.0200	0.464	0	115	80	120			
o-Xylene	0.252	0.0100	0.232	0	109	80	120			
Toluene	0.238	0.0200	0.232	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	1740		2000		86.8	72	119			
Surr: 4-Bromofluorobenzene	1880		2000		94.2	76	119			
Surr: Dibromofluoromethane	1940		2000		97.0	85	115			
Surr: Toluene-d8	2040		2000		102	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_130226A

Sample ID: **1302207-02AMSD**	Batch ID: **56211**	TestNo: **SW8260C**	Units: **mg/L**
SampType: **MSD**	Run ID: **GCMS5_130226A**	Analysis Date: **2/26/2013 2:57:00 PM**	Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.231	0.0100	0.232	0	99.5	81	120	2.86	20	
Ethylbenzene	0.246	0.0100	0.232	0	106	80	120	4.83	20	
m,p-Xylene	0.507	0.0200	0.464	0	109	80	120	5.39	20	
o-Xylene	0.241	0.0100	0.232	0	104	80	120	4.30	20	
Toluene	0.233	0.0200	0.232	0	100	80	120	2.25	20	
Surr: 1,2-Dichloroethane-d4	1730		2000		86.3	72	119	0	0	
Surr: 4-Bromofluorobenzene	1910		2000		95.5	76	119	0	0	
Surr: Dibromofluoromethane	1950		2000		97.7	85	115	0	0	
Surr: Toluene-d8	2040		2000		102	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Holly Energy Partners
Work Order: 1302208
Project: North Monument (Holly Energy Partners)

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_130226A

The QC data in batch 56205 applies to the following samples: 1302208-01B, 1302208-02B, 1302208-03B, 1302208-04B, 1302208-05B, 1302208-06B, 1302208-07B, 1302208-09C

Sample ID: **1302208-01B-DUP** Batch ID: **56205** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_130226A** Analysis Date: **2/27/2013 8:45:00 AM** Prep Date: **2/26/2013**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	19.5	0	0	17.36				11.6	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified