



March 30, 2015

Mr. Jim Griswold
New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

**Re: 2014 Annual Groundwater Monitoring Report
OXY USA, Inc.
Todd UT Hobbs R#10 ATB
Section 31, Township 7 South, Range 36 East
Roosevelt County, New Mexico. (AP085)**

Mr. Griswold:

This report details the comprehensive results of the 2014 groundwater sampling events for the OXY USA, Inc. (OXY) Todd UT Hobbs R#10 (Site) located in Section 31, Township 7 South, Range 36 East, Roosevelt County, New Mexico. The Site location is shown on Figures 1 and 2.

Background

The Todd Field is an oilfield operated by various oil and pipeline companies. The Site was historically utilized as a tank battery location. The facility was acquired by OXY in March 2008. Prior to OXY acquiring the property, the facility was operated by Plains Exploration and Production (PXP), Pogo Producing Company (Pogo), and Latigo Petroleum (Latigo). As part of a due diligence assessment for Pogo, this site was inspected by Highlander Environmental Corp. (Highlander) of Midland, Texas. Due to visual observations of historical spills, Highlander supervised the installation of hand-auger and soil borings at the site. The site location is shown on Figures 1 and 2.

Several visually impacted areas were investigated around the abandoned tank battery (ATB). A total of seven hand-auger borings were advanced in these areas on July 20, 2006. Total petroleum hydrocarbon (TPH) concentrations and chloride concentrations were vertically defined in all borings with the exception of AH-3 (TPH) and AH-4 (chloride). Two borings were advanced by air-rotary drilling in the vicinity of AH-3(BH-1) and AH-4 (BH-2). Sample location BH-1 exhibited TPH concentrations below the Recommended Remedial Action Limit (RRAL) at 5'-7' below ground surface (bgs). BH-2 was advanced in an area suspected of being a former pit located north of the ATB in an area measuring 45' x 60'. Elevated chloride concentrations were found from the surface to a depth of 70 feet bgs. In order to further define the lateral extent of impact, an additional nine borings were installed and sampled.

Based on the results, one (1) boring (BH-2) was converted to a temporary 2-inch monitoring well (MW-1). Groundwater was encountered at approximately 72 feet below top of casing (TOC). On September 6, 2006 and May 15, 2007, Highlander purged and sampled the

well per the New Mexico Oil Conservation Division (NMOCD) guidelines for analyses of chlorides and benzene, toluene, ethylbenzene and xylenes (BTEX). Chloride concentrations exceeded New Mexico Water Quality Control Commission (NMWQCC) standards, while BTEX was detected at levels below the NMWQCC action levels. The monitoring well was subsequently completed as a permanent monitoring well. On July 25, 2007, the Director of the NMOCD, Environmental Bureau was notified in writing of groundwater impact at the above-referenced site in accordance with NM Rule 116.

In September 2007, an additional seven (7) monitoring wells were installed at this facility. The monitoring wells were gauged and sampled on September 21, 2007 and December 7, 2007. Chloride concentrations exceed NMWQCC standards, while BTEX constituents were detected at levels below the NMWQCC action levels.

After OXY began operations of the site, soils that were previously identified as having TPH concentrations exceeding the RRAL and shallow chloride impacts were excavated and the material transported to the Gandy-Marley landfill for disposal.

During a November 2010 meeting, the New Mexico Office of the State Engineer (OSE) stated they do not necessarily consider groundwater monitored by the eight site monitoring wells to be "public water" (i.e. hydraulically connected to the Causey-Lingo Water Basin). The OSE may consider this suspected artificial shallow water zone as "private water". The "public water" associated with the Causey-Lingo Water Basin in the vicinity of the site is noted at depths of approximately 180 feet bgs. During the subsurface investigation conducted by Tetra Tech, Inc. (Tetra Tech) at this site (and 3 other sites in the immediate area), a tan to yellow clay of moderate to high plasticity was observed below the bottom of the shallow water (at depths of 70 to 80 feet bgs). This clay layer was observed at one of the other sites to extend to depths of 130 feet bgs (termination of the soil boring). At the site with the deeper boring, water was observed at approximately 120 feet bgs. A monitoring well was installed at this other location (identified as the Todd Field West Spill Area) in this deep boring. This water was found to meet drinking water standards (chloride concentrations below action levels). The data demonstrates that the clay material above acts as an aquitard which prevents the downward migration of chlorides from the shallow water table aquifer.

OXY has completed the restoration of this area (including the removal of well locations, roads and tank pads) in order that the site can be moved towards regulatory closure and the management of the property and surrounding properties can revert to the New Mexico State Land Office (SLO). To date, OXY has excavated approximately 1,380 cubic yards of shallow soils from the pad at the Todd UT Hobbs site and transported this material to a landfill for disposal. The SLO intends to restore the sections surrounding Section 31 to native grass lands and allow the Nature Conservancy to manage the Todd Field as a Prairie Chicken Habitat.

Regulatory Requirements

The OCD has regulatory jurisdiction over oil and gas exploration and production in the State of New Mexico. This Site is subject to the OCD's rules. New Mexico Administrative Code (NMAC) 19.15.29 requires all releases over five (5) barrels of produced water be reported to the OCD using Form C-141. In addition, the operator must submit a remediation plan to be approved by the NMOCD or an abatement plan in accordance with NMAC 19.15.30.

At locations where constituents in the vadose zone are likely to leach to groundwater, the OCD rules require that groundwater be analyzed for potential contaminants as defined by the NMWQCC regulatory limits (NMAC 20.6.2.3103). Human health standards for groundwater are presented in the following table. It should be noted that chlorides are not identified by the NMWQCC as a human health standard, but rather as an "Other Standard for Domestic Water Supply".

Human Health Standard Maximum Allowable Concentration

Compound	Maximum Allowable Concentration (mg/L)
Benzene	0.01
Toluene	0.75
Ethyl-benzene	0.75
Xylenes	0.62
Chlorides	250*

***Other Standard for Domestic Water Supply**

Gauging and Monitor Well Sampling

Since the first quarter of 2010, quarterly groundwater monitoring, including the gauging, purging, and sampling of all site monitoring wells has been performed. Utilizing the water level elevation calculations, groundwater gradient maps were generated for each of the sampling events. The hydraulic gradient was to the southwest during all the sampling events. The groundwater gradient maps for the quarterly sampling events conducted in 2014 are included as Figures 3 through 5. Groundwater gauging data is summarized in Table 1. Phase separated hydrocarbon (PSH) has never been observed at the Todd UT Hobbs site.

During the monitoring events, each of the monitoring wells were properly purged and sampled for BTEX and chlorides. The samples were properly preserved and were submitted under proper chain-of-custody control to ALS Laboratory of Houston, TX for analysis of BTEX by EPA Method 8260 and chlorides by EPA Method 300.0. Analytical results indicated that benzene did not exceed the NMWQCC Human Health Standards Maximum Allowable Concentration of 0.010 mg/L in any of the monitoring wells during the three sampling events. Chloride concentrations exceeded the NMWQCC Maximum Allowable Concentration for Domestic Water Supply of 250 mg/L during all the 2014 sampling events for all monitoring wells with the exception of MW-6, and MW-7. These two (2) wells had chloride concentrations above laboratory detection limits, but below the NMWQCC Maximum Allowable Concentrations. The chloride concentrations for the sampling events are included as Figures 6 through 8. The analyses for the 2014 sampling events are shown in Table 1. Copies of the laboratory analyses are enclosed in Appendix A.

Quality Assurance/Quality Control Parameters

At the time of sampling, all monitoring well caps were opened and each well was inspected for the presence of PSH. Water level measurements were taken from a permanent mark placed at the top of the each monitoring well casing. The measurements were taken to the nearest 0.01 feet. Prior to sampling, approximately three casing volumes of water were purged from each well. Groundwater samples were collected as soon as possible, after the groundwater returned to its static level using dedicated, disposable bailers and line.

Samples were placed into labeled and preserved containers provided by the laboratory. All of the samples were shipped under proper chain-of-custody control to ALS Laboratory of Houston, Texas for analysis of BTEX by EPA Method 8260 and chlorides by EPA Method 300.0.

A trip blank sample was submitted for analysis during each sampling events. The trip blanks were below the method detection limits. Quality Assurance/Quality Control results showed all the recovery spike percentages within recommended recovery limits.

All non-dedicated down-hole monitoring equipment (i.e. water level meter, oil-water interface probe) was decontaminated between monitoring wells with laboratory grade detergent and potable water wash followed with a distilled water rinse. Purged water was combined with other produced water in the field and transported by Oxy Petroleum for management at one of their facilities.

Proposed Soil Remediation

The soil in the spill area still contains elevated concentrations of chlorides in the soils. This Site is located within an area of land that the New Mexico SLO and The Nature Conservancy plan to manage as a Prairie Chicken Habitat. Oil and gas operators have removed all surface equipment including the access roads to allow this area to return to native grass lands in an attempt to rehabilitate the prairie chicken population. In order to achieve these goals, a path-forward closure plan dated April 12, 2013 was prepared and submitted to the NMOCD. The plan was approved by Mr. Jim Griswold with the NMOCD on September 16, 2014. The approved work plan will consist of the following:

1. Excavate the area of the spill footprint to depth as discussed in the Closure Plan dated April 12, 2013, submitted to the NMOCD.
2. Place a 40-mil plastic liner at four feet below surface grade to reduce the potential leaching of surface water through the soils within the vadose zone that exhibit elevated chloride concentrations. Backfill the excavation with clean soil and revegetate with native grasses.

Groundwater Conclusions

1. The New Mexico Office of the State Engineer does not necessarily consider this artificial groundwater associated with this site as "public water" of the Causey-Lingo Water Basin.
2. The groundwater at this site is separated from the "public water" of the Causey-Lingo Water Basin by a clay aquitard observed in the area to be approximately 40 feet in thickness. This aquitard has been observed to prevent the downward migration of chloride impacted water to the "public water".

3. PSH has never been observed in any of the site monitoring wells.
4. The hydraulic gradient direction was consistently to the southwest during all quarterly monitoring events.
5. BTEX was below laboratory reporting limits for all monitoring wells during all three sampling events.
6. During the 2014 quarterly monitoring events, chlorides ranged from 118 mg/L in monitor well MW-6 to 129,000 mg/L in monitor well MW-1. Chloride concentrations exceeded the NMWQCC Maximum Allowable Concentration for Domestic Water Supply of 250 mg/L during the 2014 sampling events for all monitoring wells with the exception of MW-6 and MW-7. These two (2) wells had chloride concentrations above laboratory detection limits, but below the NMWQCC Maximum Allowable Concentrations.

Proposed Groundwater Closure Activities

Based on the conclusions presented above, OXY proposes the following:

1. Complete the NMOCD approved soil excavation and liner placement.
2. Plugging and abandonment of all site monitoring wells.
3. Restore all surface improvements to native conditions for prairie chicken habitat.
4. Complete a yield test to classify the groundwater bearing unit at the site.

Apex and OXY understand that until all parties responsible for regulating and managing the site agree on the recommendations for site closure. Apex recommends continuation of the quarterly groundwater gauging and sampling activities until the soil excavation is complete.

Respectfully submitted,
Apex



Lyle Alsobrook
Senior Project Manager

cc: Rick Passmore –Glenn Spring Holdings
Dusty Wilson – Glenn Springs Holdings

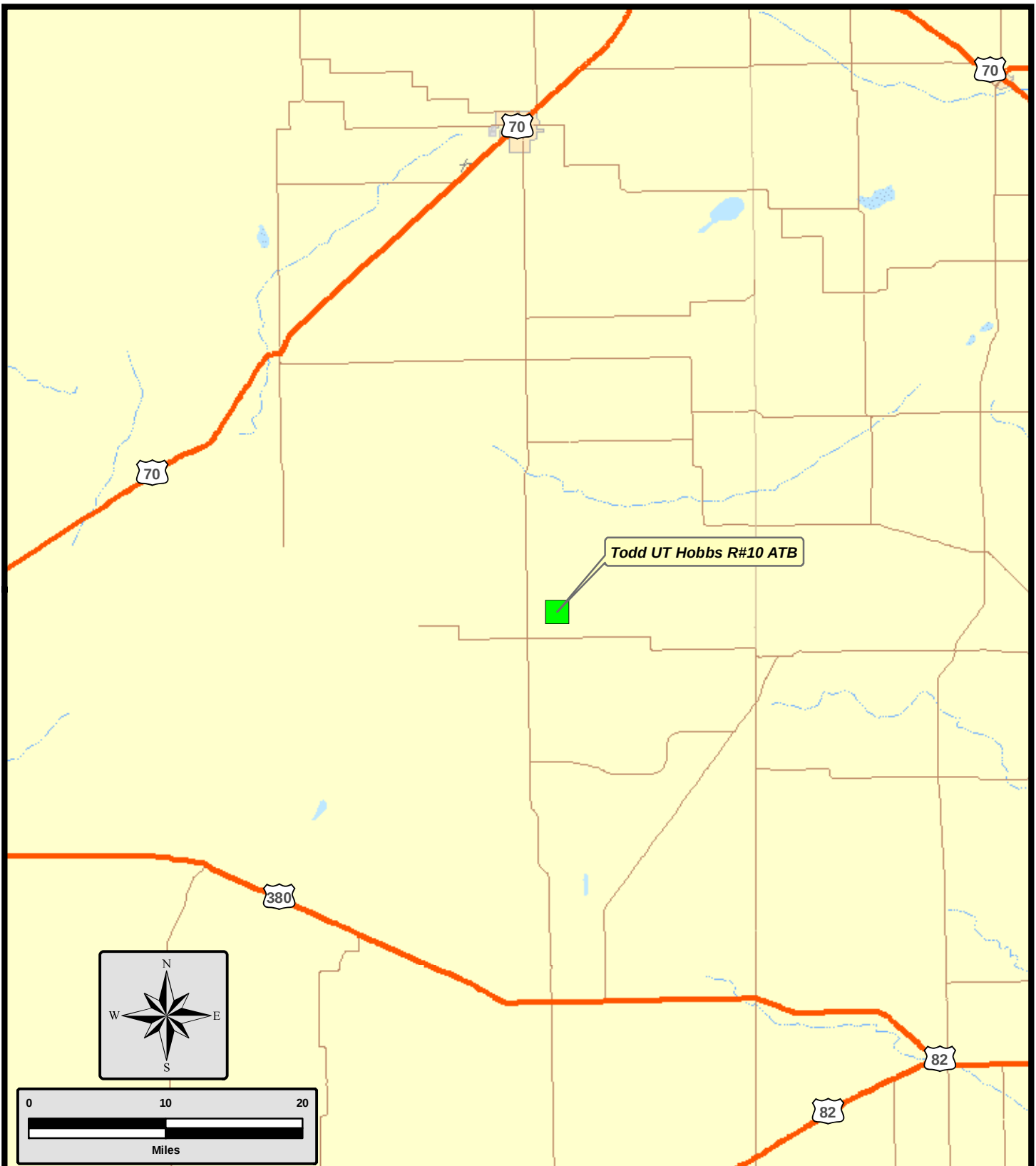


FIGURE 1 - SITE LOCATION MAP

Glenn Springs Holding, Inc.

Todd UT Hobbs R#10 ATB

Roosevelt County, New Mexico

Apex-TITAN Project No. 84800375-26.002

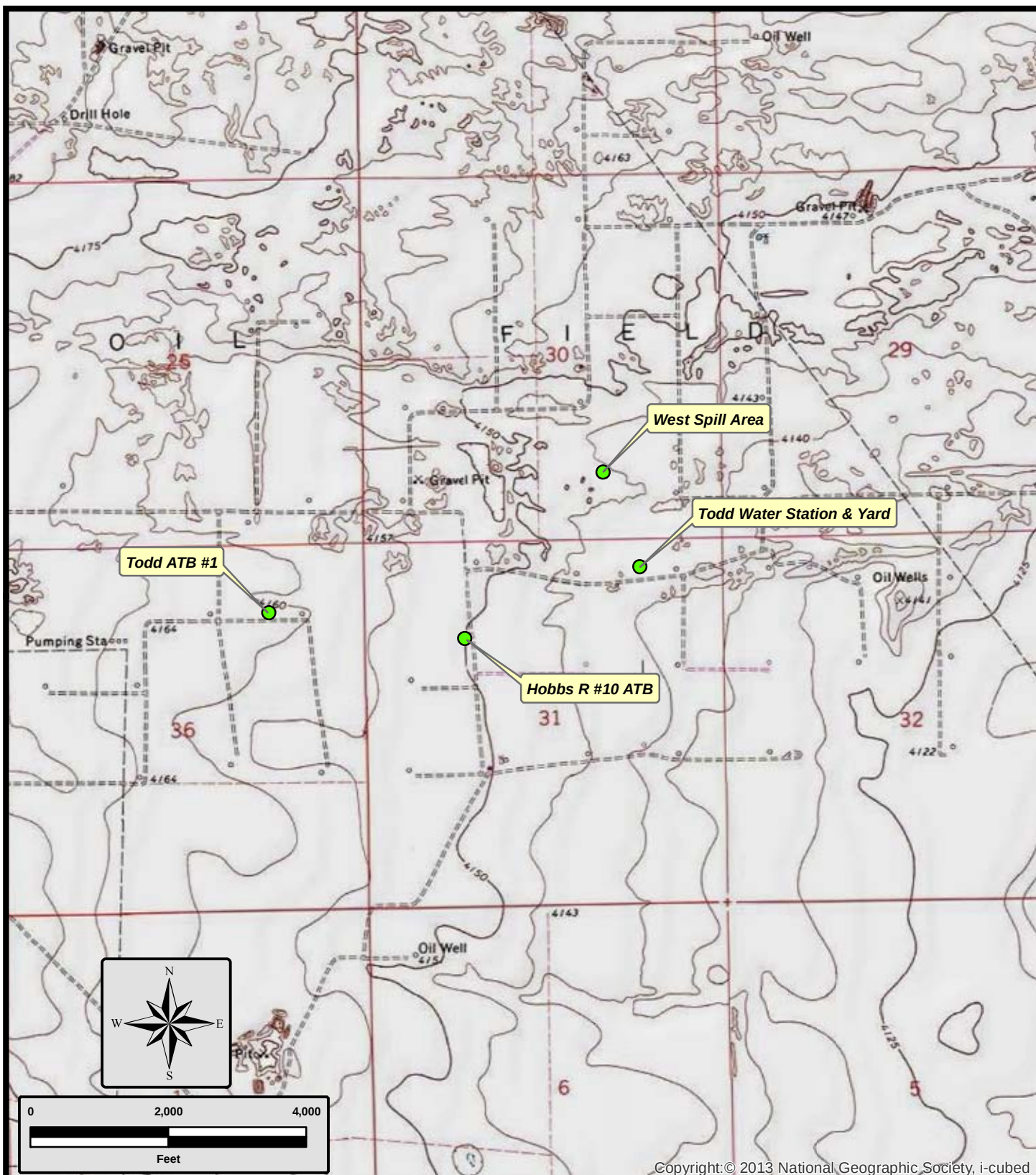
*from USGS Quadrangle Milnesand, Texas
Digital Data Courtesy of Google Earth*



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FIGURE 2 - TOPOGRAPHIC MAP

Glenn Springs Holding, Inc.

Todd UT Hobbs R #10 ATB

Roosevelt County, New Mexico

Apex-TITAN Project No. 84800375-26.002

from USGS Quadrangle Milnesand, Texas

Date Map Published 1985

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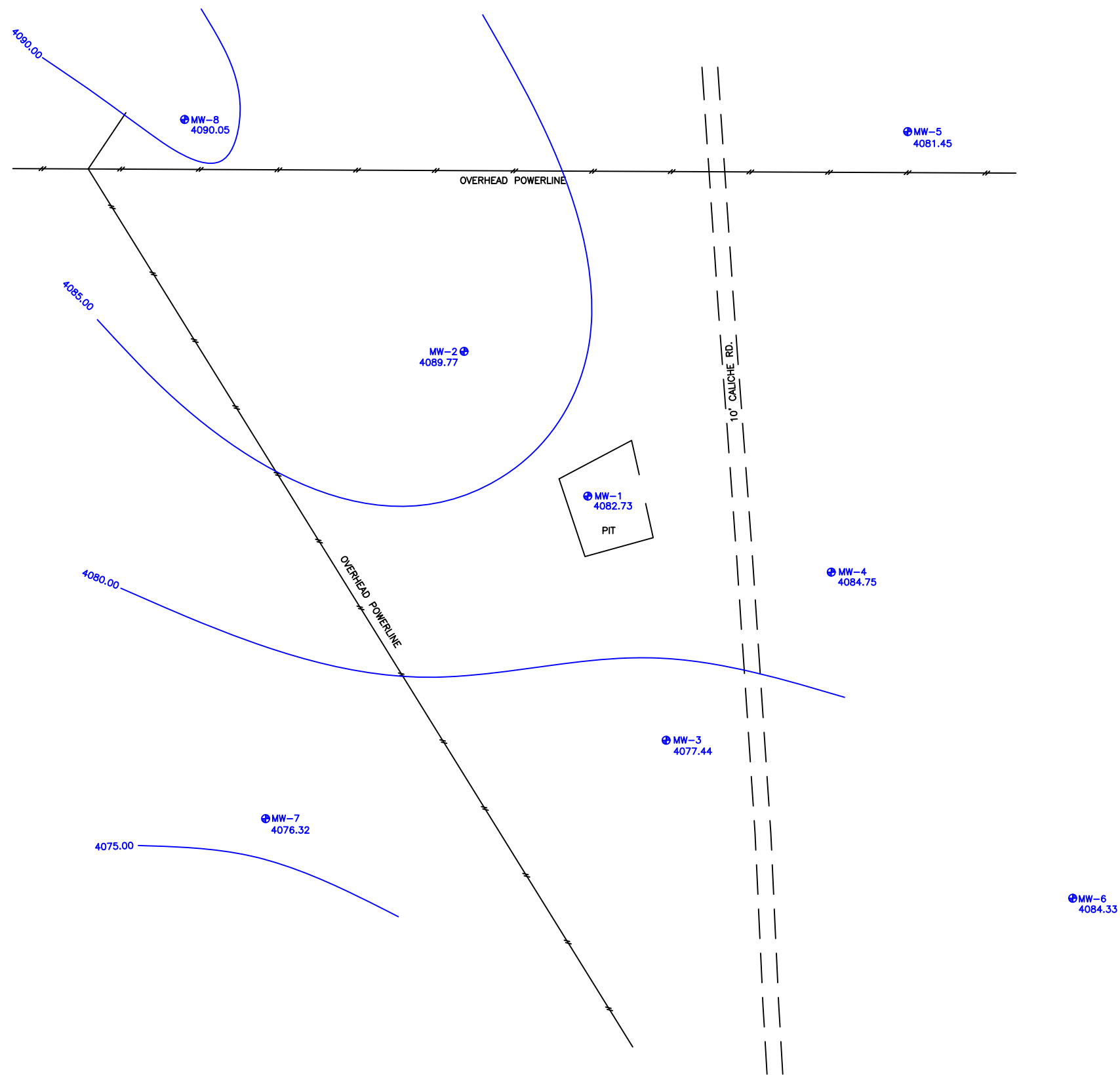
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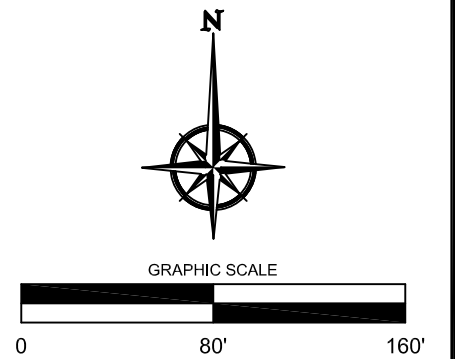
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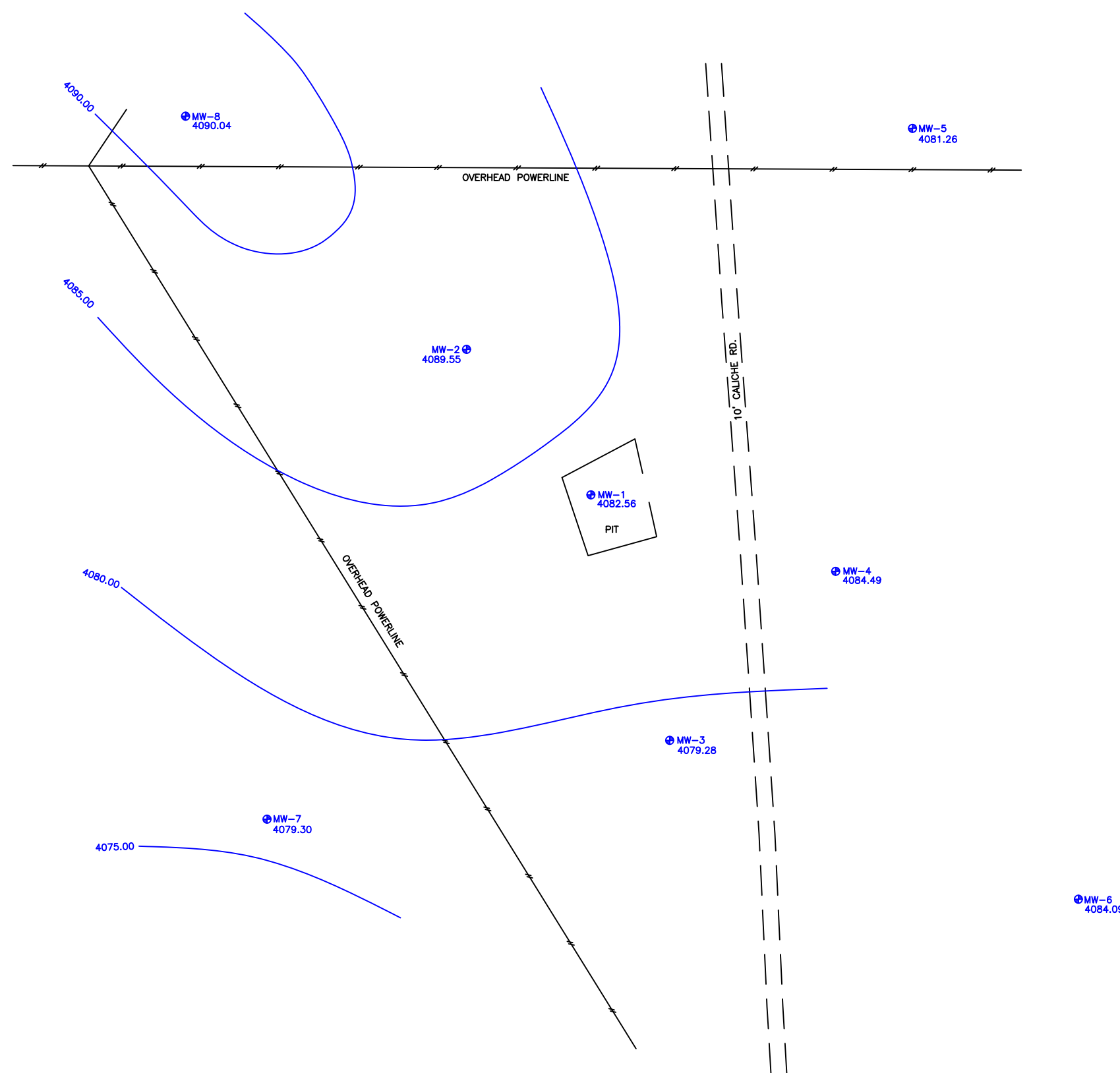


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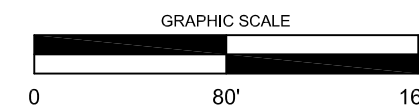
FIGURE 3
2nd Quarter 2014
Groundwater Gradient Map

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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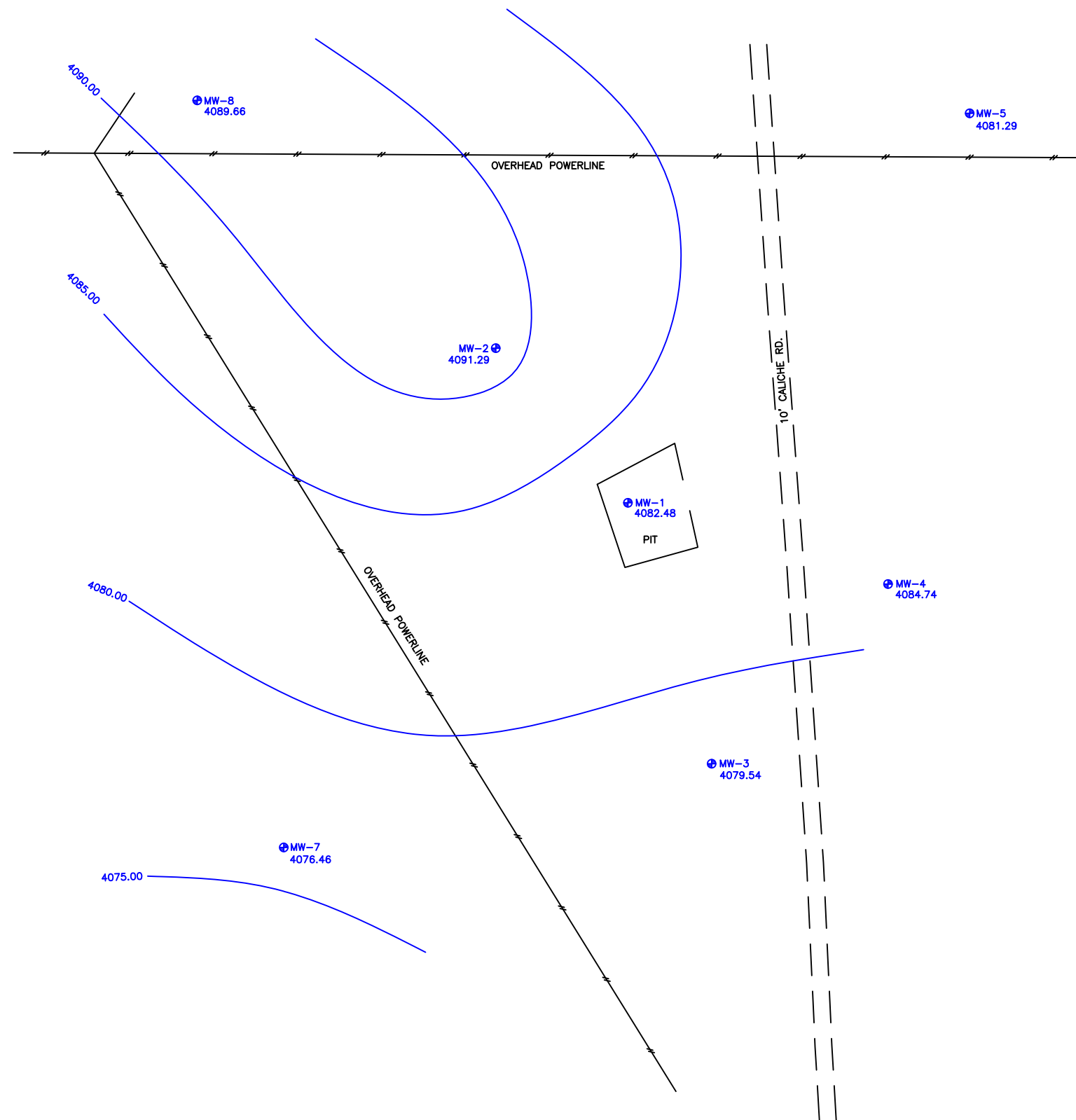


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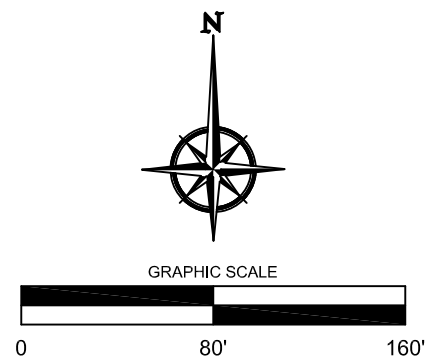
FIGURE 4
3rd Quarter 2014
Groundwater Gradient Map

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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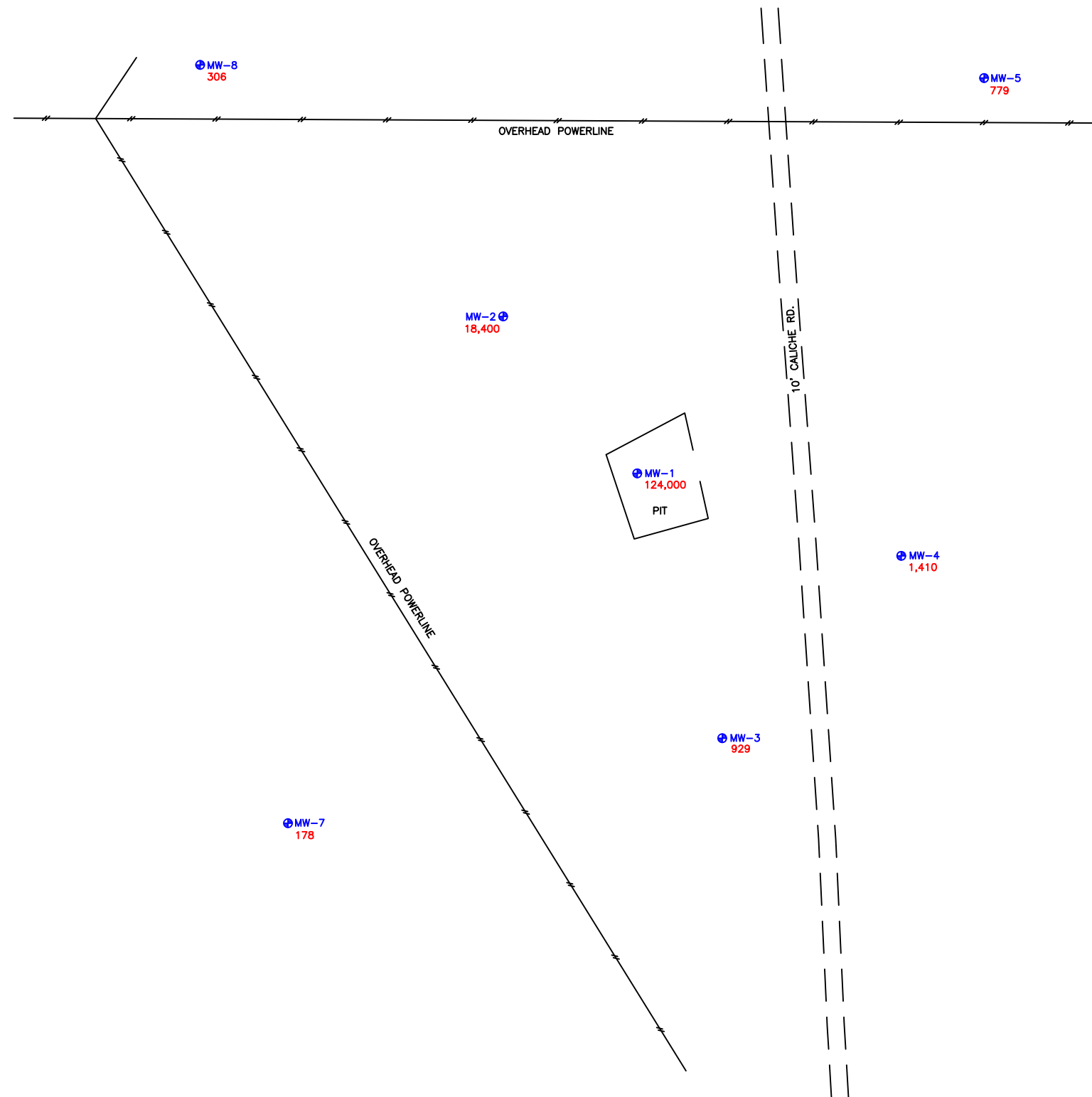


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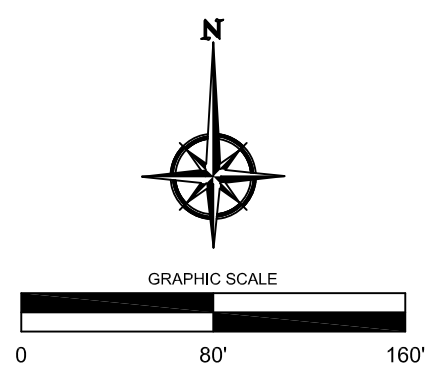
FIGURE 5
4th Quarter 2014
Groundwater Gradient Map

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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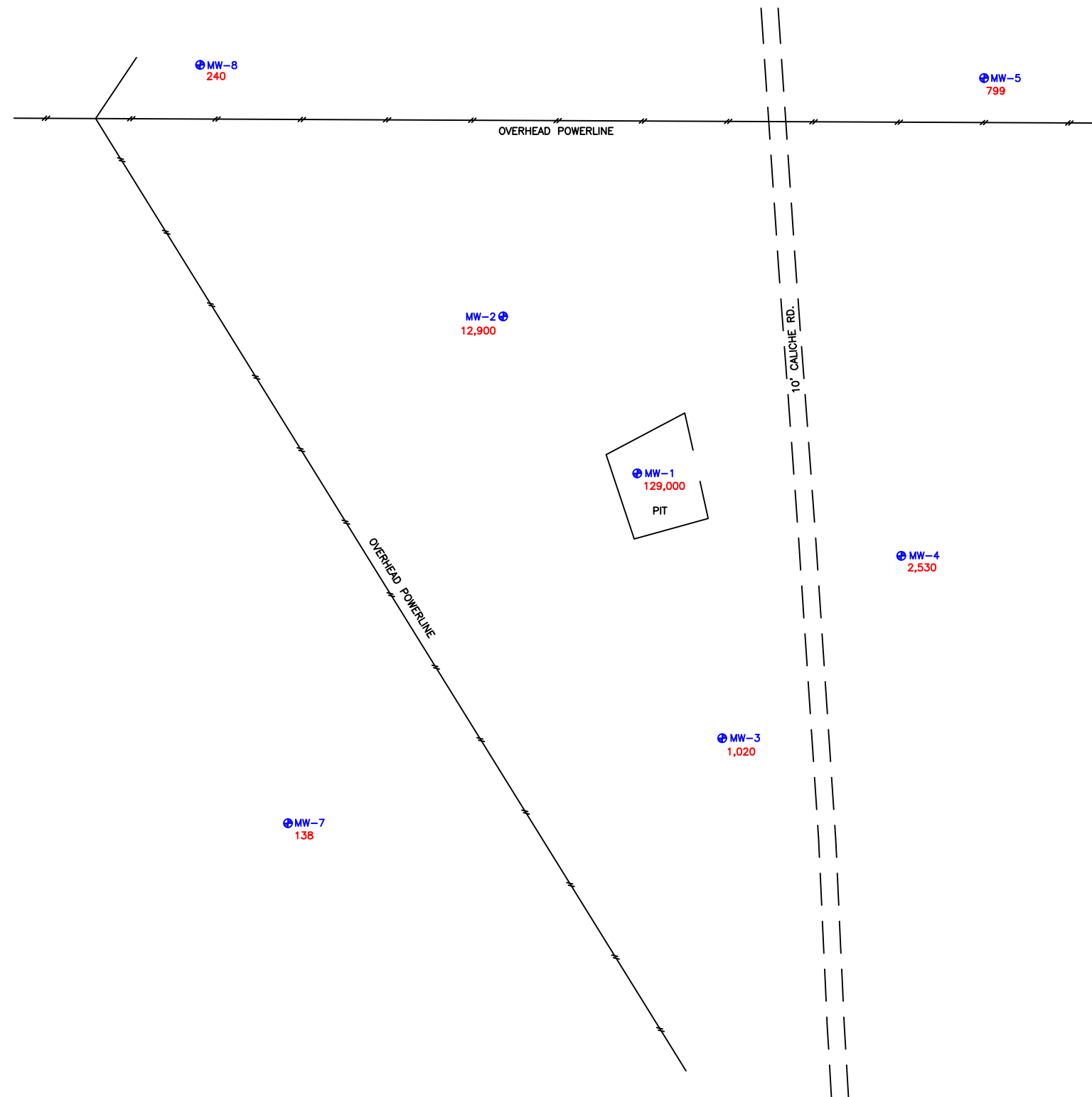


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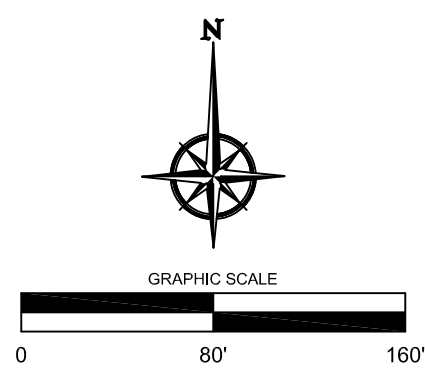
FIGURE 6
2nd Quarter 2014
Chloride Concentration Map (mg/L)

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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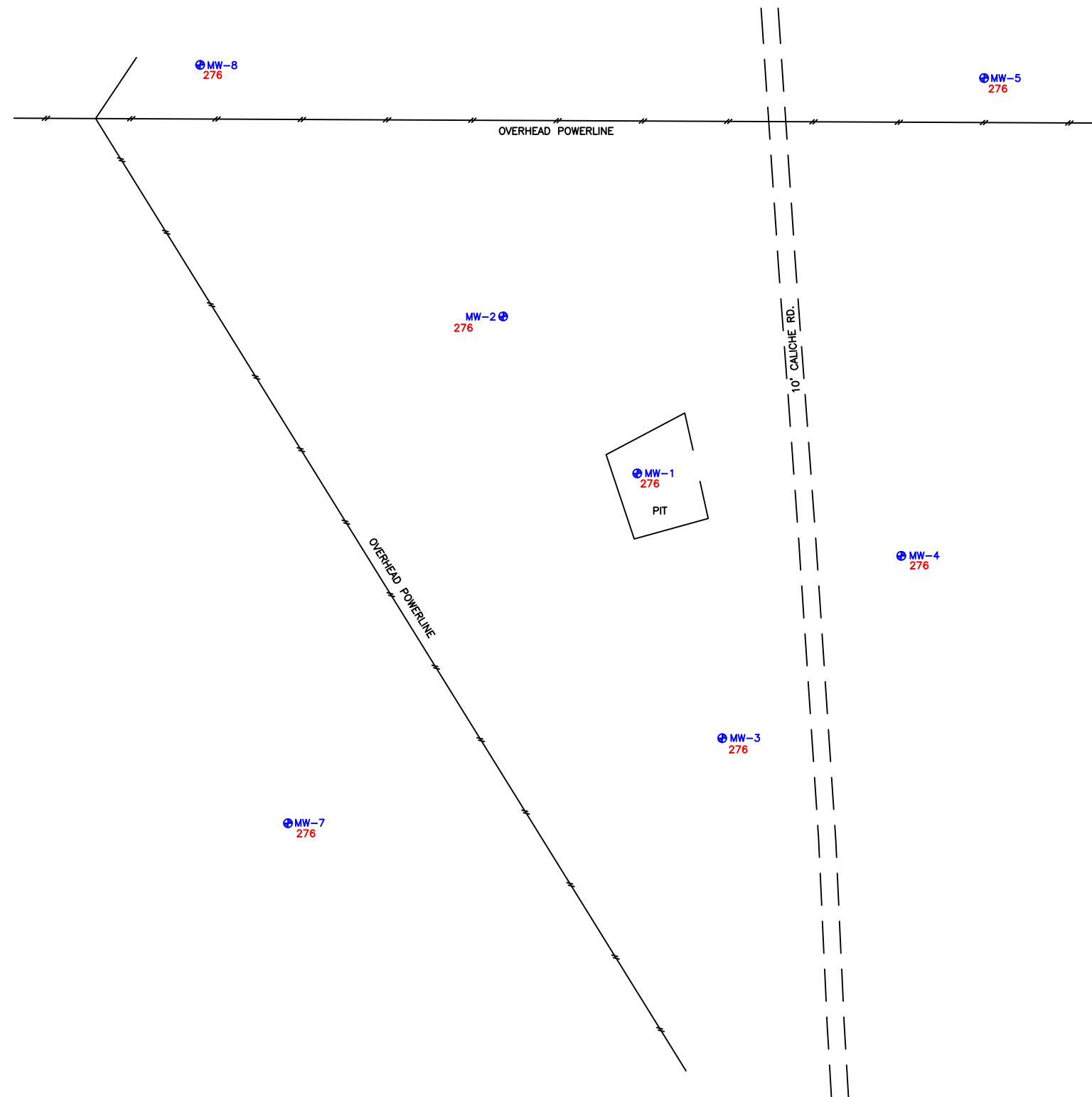


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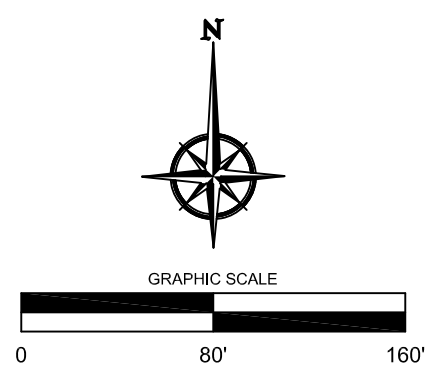
FIGURE 7
3rd Quarter 2014
Chloride Concentration Map (mg/L)

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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DRAWING NO.: TEI-0000	REVISION: 0	FIGURE: 7



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FIGURE 8
4th Quarter 2014
Chloride Concentration Map (mg/L)

Todd UT Hobbs R#10 ATB
Roosevelt County, Texas

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TABLE 1
Glenn Springs Holdings
TODD UT HOBBS R #10 ATB
Roosevelt County, New Mexico

Sample ID	Date Sampled	Date Gauged	Total Depth (feet)	Top of Casing Elevation (feet)	Measured Groundwater Elevations (feet)	Corrected Groundwater Elevations (feet)	Sample Number	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylene (mg/L)	Chloride (mg/L)	TDS (mg/L)
TMW-1	09/06/06	N.G.	80.50	4,153.39	N.G.	N.G.	102409	<0.00100	0.00120	0.00110	<0.00100	40,800	-
TMW-1	05/15/07	N.G.		4,153.39	N.G.	N.G.	124622	<0.00100	<0.00100	<0.00100	<0.00100	120,000	-
MW-1	09/21/07	09/19/07		4,153.39	72.00	4,081.39	137383	<0.00100	<0.00100	<0.00100	0.28900	92,700	-
	12/07/07	12/04/07		4,153.39	71.67	4,081.72	-	-	-	-	-	96,000	178,700
	10/01/08	09/30/08		4,153.39	71.36	4,082.03	-	<0.00100	<0.00100	<0.00100	<0.00100	93,500	-
	12/17/08	12/15/08		4,153.39	71.12	4,082.27	0812490-01	0.0005	<0.005	<0.005	<0.015	104,000	-
	02/24/10	02/23/10		4,153.39	70.92	4,082.47	-	<0.002	<0.002	<0.002	<0.006	109,000	-
	06/30/10	06/30/10		4,153.39	71.01	4,082.38	-	<0.002	<0.002	<0.002	<0.006	87,300	-
	09/27/10	09/27/10		4,153.39	71.02	4,082.37	-	<0.002	<0.002	<0.002	<0.006	95,800	-
	12/08/10	12/06/10		4,153.39	71.19	4,082.20	-	<0.002	<0.002	<0.002	<0.006	106,000	-
	03/30/11	03/28/11		4,153.39	71.75	4,081.64	-	<0.002	<0.002	<0.002	<0.006	83,400	-
	06/22/11	06/21/11		4,153.39	70.82	4,082.57	-	<0.00014	<0.00030	<0.00020	<0.00023	100,000	-
	10/04/11	10/03/11		4,153.39	71.09	4,082.30	560285411	<0.0010	<0.0010	<0.0010	<0.0030	83,000	-
	12/13/11	12/12/11		4,153.39	70.95	4,082.44	-	<0.00014	<0.00030	<0.00020	<0.00023	110,000	-
	03/14/12	03/12/12		4,153.39	70.83	4,082.56	-	<0.005	<0.005	<0.005	<0.015	101,000	-
	06/28/12	06/27/12		4,153.39	70.83	4,082.56	-	<0.005	<0.005	<0.005	<0.015	110,000	-
	09/18/12	09/17/12		4,153.39	70.79	4,082.60	-	<0.005	<0.005	<0.005	<0.015	114,000	-
	12/18/12	12/17/12		4,153.39	70.61	4,082.78	-	<0.005	<0.005	<0.005	<0.015	104,000	-
	03/19/13	03/18/13		4,153.39	70.62	4,082.77	-	<0.005	<0.005	<0.005	<0.015	109,000	-
	06/12/13	06/12/13		4,153.39	70.75	4,082.64	-	<0.005	<0.005	<0.005	<0.015	110,000	-
	09/18/13	09/18/13		4,153.39	70.53	4,082.86	-	<0.005	<0.005	<0.005	<0.015	111,000	-
	06/05/14	06/05/14		4,153.39	70.66	4,082.73	-	<0.005	<0.005	<0.005	<0.015	124,000	-
	09/15/14	09/17/14		4,153.39	70.83	4,082.56	-	<0.005	<0.005	<0.005	<0.015	129,000	-
	11/01/14	11/18/14	84.29	4,153.39	70.91	4,082.48	-	<0.006	<0.005	<0.005	<0.015	124,000	-
MW-2	09/21/07	09/19/07	80.60	4,153.90	63.51	4,090.39	137384	<0.00100	<0.00100	<0.00100	<0.00100	16,200	-
	12/07/07	12/04/07		4,153.90	63.62	4,090.28	-	-	-	-	-	16,400	26,400
	10/01/08	09/30/08		4,153.90	63.70	4,090.20	-	<0.00100	<0.00100	<0.00100	<0.00100	15,100	-
	12/17/08	12/15/08		4,153.90	63.64	4,090.26	0812490-02	<0.005	<0.005	<0.005	<0.015	16,700	-
	02/24/10	02/23/10		4,153.90	63.55	4,090.35	-	<0.002	<0.002	<0.002	<0.006	17,500	-
	06/30/10	06/30/10		4,153.90	63.77	4,090.13	-	<0.002	<0.002	<0.002	<0.006	13,900	-
	09/27/10	09/27/10		4,153.90	63.73	4,090.17	-	<0.002	<0.002	<0.002	<0.006	15,300	-
	12/08/10	12/06/10		4,153.90	64.01	4,089.89	-	<0.002	<0.002	<0.002	<0.006	15,500	-
	03/30/11	03/28/11		4,153.90	64.30	4,089.60	-	<0.002	<0.002	<0.002	<0.006	8,060	-
	06/22/11	06/21/11		4,153.90	64.57	4,089.33	-	<0.00014	<0.00030	<0.00020	<0.00023	13,000	-
	10/04/11	10/03/11		4,153.90	63.91	4,089.99	-	<0.0010	<0.0010	<0.0010	<0.0030	16,000	-
	12/13/11	12/12/11		4,153.90	63.80	4,090.10	-	<0.00014	<0.00030	<0.00020	<0.00023	14,000	-
	03/14/12	03/12/12		4,153.90	63.82	4,090.08	-	<0.005	<0.005	<0.005	<0.015	17,700	-
	06/28/12	06/27/12		4,153.90	63.93	4,089.97	-	<0.005	<0.005	<0.005	<0.015	15,300	-
	09/18/12	09/17/12		4,153.90	63.58	4,090.32	-	<0.005	<0.005	<0.005	<0.015	15,700	-
	12/18/12	12/17/12		4,153.90	63.77	4,090.13	-	<0.005	<0.005	<0.005	<0.015	15,100	-
	03/19/13	03/18/13		4,153.90	63.87	4,090.03	-	<0.005	<0.005	<0.005	<0.015	17,600	-
	06/12/13	06/12/13		4,153.90	64.07	4,089.83	-	<0.005	<0.005	<0.005	<0.015	15,800	-
	09/18/13	09/18/13		4,153.90	64.12	4,089.78	-	<0.005	<0.005	<0.005	<0.015	15,600	-
	06/05/14	06/05/14		4,153.90	64.13	4,089.77	-	<0.005	<0.005	<0.005	<0.015	18,400	-
	09/15/14	09/17/14		4,153.90	64.35	4,089.55	-	<0.005	<0.005	<0.005	<0.015	12,900	-
	11/19/2014	11/18/2014	91.91	4,153.90	62.61	4,091.29	-	<0.006	<0.005	<0.005	<0.015	15,800	-
MW-3	09/21/07	09/19/07	88.20	4,155.13	78.56	4,076.57	137385	<0.00100	<0.00100	<0.00100	<0.00100	164	-
	12/07/07	12/04/07		4,155.13	78.13	4,077.00	-	-	-	-	-	209	806
	10/01/08	09/30/08		4,155.13	77.62	4,077.51	-	<0.00100	<0.00100	<0.00100	<0.00100	191	-
	12/17/08	12/15/08		4,155.13	77.42	4,077.71	0812490-03	<0.005	<0.005	<0.005	<0.015	203	-
	02/24/10	02/23/10		4,155.13	76.92	4,078.21	-	<0.002	<0.002	<0.002	<0.006	422	-
	06/30/10	06/30/10		4,155.13	76.88	4,078.25	-	<0.002	<0.002	<0.002	<0.006	492	-
	09/27/10	09/27/10		4,155.13	76.80	4,078.33	-	<0.002	<0.002	<0.002	<0.006	385	-
	12/08/10	12/06/10		4,155.13	76.89	4,078.24	-	<0.002	<0.002	<0.002	<0.006	547	-
	03/30/11	03/28/11		4,155.13	77.17	4,077.96	-	<0.002	<0.002	<0.002	<0.006	422	-
	06/22/11	06/21/11		4,155.13	77.33	4,077.80	-	<0.00014	<0.00030	<0.00020	<0.00023	550	-
	10/04/11	10/03/11		4,155.13	76.80	4,078.33	-	<0.0010	<0.0010	<0.0010	<0.0030	490	-
	12/13/11	12/12/11		4,155.13	76.55	4,078.58	-	<0.00014	<0.00030	<0.00020	<0.00023	760	-
	03/14/12	03/12/12		4,155.13	76.36	4,078.77	-	<0.005	<0.005	<0.005	<0.015	932	-
	06/28/12	06/27/12		4,155.13	76.30	4,078.83	-	<0.005	<0.005	<0.005	<0.015	394	-
	09/18/12	09/17/12		4,155.13	76.16	4,078.97	-	<0.005	<0.005	<0.005	<0.015	368	-
	12/18/12	12/17/12		4,155.13	76.02	4,079.11	-	<0.005	<0.005	<0.005	<0.015	360	-
	03/19/13	03/18/13		4,155.13	76.09	4,079.04	-	<0.005	<0.005	<0.005	<0.015	1,170	-

TABLE 1
Glenn Springs Holdings
TODD UT HOBBS R #10 ATB
Roosevelt County, New Mexico

Sample ID	Date Sampled	Date Gauged	Total Depth (feet)	Top of Casing Elevation (feet)	Measured Groundwater Elevations (feet)	Corrected Groundwater Elevations (feet)	Sample Number	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylene (mg/L)	Chloride (mg/L)	TDS (mg/L)
	06/12/13	06/12/13		4,155.13	76.06	4,079.07	-	<0.005	<0.005	<0.005	<0.015	597	-
	09/18/13	09/18/13		4,155.13	76.17	4,078.96	-	<0.005	<0.005	<0.005	<0.015	716	-
	06/05/14	06/05/14		4,155.13	77.69	4,077.44	-	<0.005	<0.005	<0.005	<0.015	929	-
	09/15/14	09/17/14		4,155.13	75.85	4,079.28	-	<0.005	<0.005	<0.005	<0.015	1,020	-
	11/19/14	11/18/14	90.68	4,155.13	75.59	4,079.54	-	<0.006	<0.005	<0.005	<0.015	741	-
MW-4	09/21/07	09/19/07	87.90	4,153.35	68.11	4,085.24	137386	<0.00100	<0.00100	<0.00100	<0.00100	3,330	-
	12/07/07	12/04/07		4,153.35	68.12	4,085.23	-	-	-	-	-	3,170	6,400
	10/01/08	09/30/08		4,153.35	68.27	4,085.08	-	<0.00100	<0.00100	<0.00100	<0.00100	1,770	-
	12/17/08	12/15/08		4,153.35	68.24	4,085.11	0812490-04	<0.005	<0.005	<0.005	<0.015	1,820	-
	02/24/10	02/23/10		4,153.35	68.24	4,085.11	-	<0.002	<0.002	<0.002	<0.006	1,280	-
	06/30/10	06/30/10		4,153.35	68.34	4,085.01	-	<0.002	<0.002	<0.002	<0.006	1,360	-
	09/27/10	09/27/10		4,153.35	68.34	4,085.01	-	<0.002	<0.002	<0.002	<0.006	1,090	-
	12/08/10	12/06/10		4,153.35	68.50	4,084.85	-	<0.002	<0.002	<0.002	<0.006	1,210	-
	03/30/11	03/28/11		4,153.35	68.90	4,084.45	-	<0.002	<0.002	<0.002	<0.006	1,920	-
	06/22/11	06/21/11		4,153.35	69.16	4,084.19	-	<0.00014	<0.00030	<0.00020	<0.00023	1,100	-
	10/04/11	10/03/11		4,153.35	68.63	4,084.72	-	<0.0010	<0.0010	<0.0010	<0.0030	1,000	-
	12/13/11	12/12/11		4,153.35	68.53	4,084.82	-	<0.00014	<0.00030	<0.00020	<0.00023	1,100	-
	03/14/12	03/12/12		4,153.35	68.45	4,084.90	-	<0.005	<0.005	<0.005	<0.015	3,340	-
	06/29/12	06/28/12		4,153.35	68.51	4,084.84	-	<0.005	<0.005	<0.005	<0.015	954	-
	09/18/12	06/17/12		4,153.35	68.44	4,084.91	-	<0.005	<0.005	<0.005	<0.015	929	-
	12/18/12	12/17/12		4,153.35	68.39	4,084.96	-	<0.005	<0.005	<0.005	<0.015	891	-
	03/19/13	03/18/13		4,153.35	68.54	4,084.81	-	<0.005	<0.005	<0.005	<0.015	3,470	-
	06/12/13	06/12/13		4,153.35	68.61	4,084.74	-	<0.005	<0.005	<0.005	<0.015	1,920	-
	09/18/13	09/18/13		4,153.35	68.74	4,084.61	-	<0.005	<0.005	<0.005	<0.015	901	-
	06/05/14	06/05/14		4,153.35	68.60	4,084.75	-	<0.005	<0.005	<0.005	<0.015	1,410	-
	09/15/14	09/17/14		4,153.35	68.86	4,084.49	-	<0.005	<0.005	<0.005	<0.015	2,530	-
	11/19/14	11/18/14	90.89	4,153.35	68.61	4,084.74	-	<0.005	<0.005	<0.005	<0.015	964	-
MW-5	09/21/07	09/19/07	87.87	4,154.01	62.83	4,091.18	137387	<0.00100	<0.00100	<0.00100	<0.00100	601	-
	12/07/07	12/04/07		4,154.01	62.79	4,091.22	-	-	-	-	-	780	2,155
	10/01/08	09/30/08		4,154.01	62.96	4,091.05	-	<0.00100	<0.00100	<0.00100	<0.00100	621	-
	12/17/08	12/15/08		4,154.01	63.03	4,090.98	0812490-05	<0.005	<0.005	<0.005	<0.015	649	-
	02/24/10	02/23/10		4,154.01	63.10	4,090.91	-	<0.002	<0.002	<0.002	<0.006	638	-
	06/30/10	06/30/10		4,154.01	63.13	4,090.88	-	<0.002	<0.002	<0.002	<0.006	671	-
	09/27/10	09/27/10		4,154.01	63.16	4,090.85	-	<0.002	<0.002	<0.002	<0.006	642	-
	12/08/10	12/06/10		4,145.01	63.20	4,081.81	-	<0.002	<0.002	<0.002	<0.006	588	-
	03/30/11	03/28/11		4,145.01	63.93	4,081.08	-	<0.002	<0.002	<0.002	<0.006	338	-
	06/22/11	06/21/11		4,145.01	64.02	4,080.99	-	<0.00014	<0.00030	<0.00020	<0.00023	600	-
	10/04/11	10/03/11		4,145.01	63.35	4,081.66	-	<0.0010	<0.0010	<0.0010	<0.0030	650	-
	12/13/11	12/12/11		4,145.01	63.30	4,081.71	-	<0.00014	<0.00030	<0.00020	<0.00023	650	-
	03/14/12	03/12/12		4,145.01	63.28	4,081.71	-	<0.005	<0.005	<0.005	<0.015	667	-
	06/28/12	06/27/12		4,145.01	63.37	4,081.64	-	<0.005	<0.005	<0.005	<0.015	646	-
	09/18/12	09/17/12		4,145.01	63.33	4,081.68	-	<0.005	<0.005	<0.005		625	-
	12/18/12	12/17/12		4,145.01	63.32	4,081.69	-	<0.005	<0.005	<0.005	<0.015	598	-
	03/19/13	03/18/13		4,145.01	63.40	4,081.61	-	<0.005	<0.005	<0.005	<0.015	678	-
	06/12/13	06/12/13		4,145.01	63.47	4,081.54	-	<0.005	<0.005	<0.005	<0.015	645	-
	09/18/13	09/18/13		4,145.01	63.55	4,081.46	-	<0.005	<0.005	<0.005	<0.015	701	-
	06/05/14	06/05/14		4,145.01	63.56	4,081.45	-	<0.005	<0.005	<0.005	<0.015	779	-
	09/15/14	09/17/14		4,145.01	63.75	4,081.26	-	<0.005	<0.005	<0.005	<0.015	799	-
	11/19/14	11/18/14	90.40	4,145.01	63.72	4,081.29	-	<0.005	<0.005	<0.005	<0.015	673	-
MW-6	09/21/07	09/19/07	88.80	4,153.54	71.62	4,081.92	137388	<0.00100	<0.00100	<0.00100	<0.00100	121	-
	12/07/07	12/04/07		4,153.54	70.95	4,082.59	-	-	-	-	-	130	838
	10/01/08	09/30/08		4,153.54	70.58	4,082.96	-	<0.00100	<0.00100	<0.00100	<0.00100	122	-
	12/17/08	12/15/08		4,153.54	70.43	4,083.11	0812490-06	<0.005	<0.005	<0.005	<0.0015	127	-
	02/24/10	02/23/10		4,153.54	69.90	4,083.64	-	<0.002	<0.002	<0.002	<0.006	129	-
	06/30/10	06/30/10		4,153.54	69.83	4,083.71	-	<0.002	<0.002	<0.002	<0.006	126	-
	09/27/10	09/27/10		4,153.54	69.73	4,083.81	-	<0.002	<0.002	<0.002	<0.006	149	-
	12/08/10	12/06/10		4,153.54	69.83	4,083.71	-	<0.002	<0.002	<0.002	<0.006	126	-
	03/30/11	03/28/11		4,153.54	70.11	4,083.43	-	<0.002	<0.002	<0.002	<0.006	117	-
	06/22/11	06/21/11		4,153.54	70.27	4,083.27	-	<0.00014	<0.00030	<0.00020	<0.00023	130	-
	10/04/11	10/03/11		4,153.54	69.64	4,083.90	-	<0.0010	<0.0010	<0.0010	<0.0030	130	-
	12/13/11	12/12/11		4,153.54	69.53	4,084.01	-	<0.00014	<0.00030	<0.00020	<0.00023	130	-
	03/14/12	03/12/12		4,153.54	69.41	4,084.13	-	<0.005	<0.005	<0.005	<0.015	120	-

TABLE 1
Glenn Springs Holdings
TODD UT HOBBS R #10 ATB
Roosevelt County, New Mexico

Sample ID	Date Sampled	Date Gauged	Total Depth (feet)	Top of Casing Elevation (feet)	Measured Groundwater Elevations (feet)	Corrected Groundwater Elevations (feet)	Sample Number	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylene (mg/L)	Chloride (mg/L)	TDS (mg/L)
	06/28/12	06/27/12		4,153.54	69.41	4,084.13	-	<0.005	<0.005	<0.005	<0.015	128	-
	09/18/12	09/17/12		4,153.54	69.26	4,084.28	-	<0.005	<0.005	<0.005	<0.015	131	-
	12/18/12	12/17/12		4,153.54	69.19	4,084.35	-	<0.005	<0.005	<0.005	<0.015	123	-
	03/19/13	03/18/13		4,153.54	69.23	4,084.31	-	<0.005	<0.005	<0.005	<0.015	138	-
	06/12/13	06/12/13		4,153.54	69.30	4,084.24	-	<0.005	<0.005	<0.005	<0.015	136	-
	09/18/13	09/18/13		4,153.54	69.40	4,084.14	-	<0.005	<0.005	<0.005	<0.015	143	-
	06/05/14	06/05/14		4,153.54	69.21	4,084.33	-	<0.005	<0.005	<0.005	<0.015	157	-
	09/15/14	09/17/14		4,153.54	69.45	4,084.09	-	<0.005	<0.005	<0.005	<0.015	118	-
	11/19/14	11/18/14	91.12	4,153.54	69.11	4,084.43	-	<0.005	<0.005	<0.005	<0.015	133	-
MW-7	09/21/07	09/19/07	88.00	4,154.97	82.45	4,072.52	137389	<0.00100	<0.00100	<0.00100	<0.00100	127	-
	12/07/07	12/04/07		4,154.97	82.26	4,072.71	-	-	-	-	-	134	706
	10/01/08	09/30/08		4,154.97	81.78	4,073.19	-	<0.00100	<0.00100	<0.00100	<0.00200	132	-
	12/17/08	12/15/08		4,154.97	81.51	4,073.46	0812490-07	<0.005	<0.005	<0.005	<0.015	141	-
	02/24/10	02/23/10		4,154.97	79.81	4,075.16	-	<0.002	<0.002	<0.002	<0.006	133	-
	06/30/10	06/30/10		4,154.97	79.70	4,075.27	-	<0.002	<0.002	<0.002	<0.006	137	-
	09/27/10	09/27/10		4,154.97	80.57	4,074.40	-	<0.002	<0.002	<0.002	<0.006	135	-
	12/08/10	12/06/10		4,154.97	80.64	4,074.33	-	<0.002	<0.002	<0.002	<0.006	142	-
	03/30/11	03/28/11		4,154.97	80.83	4,074.14	-	<0.002	<0.002	<0.002	<0.006	127	-
	06/22/11	06/21/11		4,154.97	80.93	4,074.04	-	<0.00014	<0.00030	<0.00020	<0.00023	140	-
	10/04/11	10/03/11		4,154.97	80.29	4,074.68	-	<0.0010	<0.0010	<0.0010	<0.0030	140	-
	12/13/11	12/12/11		4,154.97	80.05	4,074.92	-	<0.00014	<0.00030	<0.00020	<0.00023	150	-
	03/14/12	03/12/12		4,154.97	79.81	4,075.16	-	<0.005	<0.005	<0.005	<0.015	149	-
	06/28/12	06/27/12		4,154.97	79.65	4,075.32	-	<0.005	<0.005	<0.005	<0.015	142	-
	09/18/12	09/17/12		4,154.97	79.51	4,075.46	-	<0.005	<0.005	<0.005	<0.015	148	-
	12/18/12	12/17/12		4,154.97	79.23	4,075.74	-	<0.005	<0.005	<0.005	<0.015	136	-
	03/19/13	03/18/13		4,154.97	79.25	4,075.72	-	<0.005	<0.005	<0.005	<0.015	157	-
	06/12/13	06/12/13		4,154.97	79.22	4,075.75	-	<0.005	<0.005	<0.005	<0.015	148	-
	09/18/13	09/18/13		4,154.97	79.18	4,075.79	-	<0.005	<0.005	<0.005	<0.015	158	-
	06/05/14	06/05/14		4,154.97	78.65	4,076.32	-	<0.005	<0.005	<0.005	<0.015	178	-
	09/15/14	09/17/14		4,157.97	78.67	4,079.30	-	<0.005	<0.005	<0.005	<0.015	138	-
	11/19/14	11/18/14	92.25	4,154.97	78.51	4,076.46	-	<0.005	<0.005	<0.005	<0.015	153	-
MW-8	09/21/07	09/19/07	87.93	4,156.28	87.93	4,068.35	137390	<0.00100	<0.00100	<0.00100	<0.00100	365	-
	12/07/07	12/04/07		4,156.28	65.30	4,090.98	-	-	-	-	-	483	1,586
	10/01/08	09/30/08		4,156.28	65.42	4,090.86	-	<0.00100	<0.00100	<0.00100	<0.00100	484	-
	12/17/08	12/15/08		4,156.28	65.48	4,090.80	0812490-08	<0.005	<0.005	<0.005	<0.015	1,290	-
	02/24/10	02/23/10		4,156.28	65.78	4,090.50	-	<0.002	<0.002	<0.002	<0.006	507	-
	06/30/10	06/30/10		4,156.28	65.88	4,090.40	-	<0.002	<0.002	<0.002	<0.006	437	-
	09/27/10	09/27/10		4,156.28	65.86	4,090.42	-	<0.002	<0.002	<0.002	<0.006	308	-
	12/08/10	12/06/10		4,156.28	66.03	4,090.25	-	<0.002	<0.002	<0.002	<0.006	248	-
	03/30/11	03/28/11		4,156.28	66.52	4,089.76	-	<0.002	<0.002	<0.002	<0.006	200	-
	06/22/11	06/21/11		4,156.28	66.68	4,089.60	-	<0.00014	<0.00030	<0.00020	<0.00023	250	-
	10/04/11	10/03/11		4,156.28	65.96	4,090.32	-	<0.0010	<0.0010	<0.0010	<0.0030	230	-
	12/13/11	12/12/11		4,156.28	65.87	4,090.41	-	<0.00014	<0.00030	<0.00020	<0.00023	240	-
	03/14/12	03/12/12		4,156.28	65.88	4,090.40	-	<0.005	<0.005	<0.005	<0.015	257	-
	06/28/12	06/27/12		4,156.28	65.97	4,090.31	-	<0.005	<0.005	<0.005	<0.015	228	-
	09/18/12	09/17/12		4,156.28	65.78	4,090.50	-	<0.005	<0.005	<0.005	<0.015	246	-
	12/18/12	12/17/12		4,156.28	65.89	4,090.39	-	<0.005	<0.005	<0.005	<0.015	217	-
	03/19/13	03/18/13		4,156.28	65.88	4,090.40	-	<0.005	<0.005	<0.005	<0.015	256	-
	06/12/13	06/12/13		4,156.28	66.11	4,090.17	-	<0.005	<0.005	<0.005	<0.015	241	-
	09/18/13	09/18/13		4,156.28	66.16	4,090.12	-	<0.005	<0.005	<0.005	<0.015	276	-
	06/05/14	06/05/14		4,156.28	66.23	4,090.05	-	<0.005	<0.005	<0.005	<0.015	306	-
	09/15/14	09/17/14		4,156.28	66.24	4,090.04	-	<0.005	<0.005	<0.005	<0.015	240	-
	11/19/14	11/18/14	90.81	4,156.28	66.62	4,089.66	-	<0.005	<0.005	<0.005	<0.015	264	-

standard for Domestic Water Supply



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June 20, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14060344**

Laboratory Results for: **55629DM GSHI PXP UT Hobbs R 10 ATB**

Dear Angela,

ALS Environmental received 9 sample(s) on Jun 07, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane Wacasey".

Generated By: Dayna.Fisher

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Work Order: HS14060344

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14060344-01	MW-1	Water		05-Jun-2014 15:01	07-Jun-2014 09:10	☐
HS14060344-02	MW-2	Water		05-Jun-2014 15:10	07-Jun-2014 09:10	☐
HS14060344-03	MW-3	Water		05-Jun-2014 16:07	07-Jun-2014 09:10	☐
HS14060344-04	MW-4	Water		05-Jun-2014 16:30	07-Jun-2014 09:10	☐
HS14060344-05	MW-5	Water		05-Jun-2014 16:38	07-Jun-2014 09:10	☐
HS14060344-06	MW-6	Water		05-Jun-2014 16:20	07-Jun-2014 09:10	☐
HS14060344-07	MW-7	Water		05-Jun-2014 15:52	07-Jun-2014 09:10	☐
HS14060344-08	MW-8	Water		05-Jun-2014 15:22	07-Jun-2014 09:10	☐
HS14060344-09	Trip Blank-052814-17	Water		05-Jun-2014 00:00	07-Jun-2014 09:10	☐

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Work Order: HS14060344

CASE NARRATIVE

Analyst Initials and Names:
KKB Karin K. UnderBrink
PC Presenta Cabascango

Batch R235690, BTEX Method SW8260, Sample HS14060345-01: MS/MSD was performed on an unrelated sample.

Batch R235768, Anions Method E300, Sample HS14060343-02: MS/MSD was performed on an unrelated sample.

Client: Glenn Springs Holdings
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
 Sample ID: MW-1
 Collection Date: 05-Jun-2014 15:01

ANALYTICAL REPORT

WorkOrder:HS14060344
 Lab ID:HS14060344-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 18:51
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 18:51
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 18:51
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 18:51
<i>Surr: 1,2-Dichloroethane-d4</i>	97.3			70-125	%REC	1	15-Jun-2014 18:51
<i>Surr: 4-Bromofluorobenzene</i>	100			72-125	%REC	1	15-Jun-2014 18:51
<i>Surr: Dibromofluoromethane</i>	98.4			71-125	%REC	1	15-Jun-2014 18:51
<i>Surr: Toluene-d8</i>	98.7			75-125	%REC	1	15-Jun-2014 18:51
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	124,000		1000	2500	mg/L	5000	19-Jun-2014 16:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
 Sample ID: MW-2
 Collection Date: 05-Jun-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14060344
 Lab ID:HS14060344-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 19:16
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 19:16
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 19:16
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 19:16
<i>Surr: 1,2-Dichloroethane-d4</i>	93.4			70-125	%REC	1	15-Jun-2014 19:16
<i>Surr: 4-Bromofluorobenzene</i>	99.0			72-125	%REC	1	15-Jun-2014 19:16
<i>Surr: Dibromofluoromethane</i>	94.7			71-125	%REC	1	15-Jun-2014 19:16
<i>Surr: Toluene-d8</i>	97.4			75-125	%REC	1	15-Jun-2014 19:16
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	18,400		200	500	mg/L	1000	18-Jun-2014 01:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: MW-3
Collection Date: 05-Jun-2014 16:07

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 19:40
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 19:40
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 19:40
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 19:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>94.0</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 19:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.6</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 19:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>95.2</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 19:40</i>
<i>Surr: Toluene-d8</i>	<i>98.9</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 19:40</i>
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	929		10.0	25.0	mg/L	50	18-Jun-2014 01:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: MW-4
Collection Date: 05-Jun-2014 16:30

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 20:28
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 20:28
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 20:28
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 20:28
<i>Surr: 1,2-Dichloroethane-d4</i>	92.8			70-125	%REC	1	15-Jun-2014 20:28
<i>Surr: 4-Bromofluorobenzene</i>	99.5			72-125	%REC	1	15-Jun-2014 20:28
<i>Surr: Dibromofluoromethane</i>	95.0			71-125	%REC	1	15-Jun-2014 20:28
<i>Surr: Toluene-d8</i>	97.8			75-125	%REC	1	15-Jun-2014 20:28
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	1,410		20.0	50.0	mg/L	100	18-Jun-2014 02:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: MW-5
Collection Date: 05-Jun-2014 16:38

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 21:17
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 21:17
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 21:17
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 21:17
<i>Surr: 1,2-Dichloroethane-d4</i>	92.7			70-125	%REC	1	15-Jun-2014 21:17
<i>Surr: 4-Bromofluorobenzene</i>	98.7			72-125	%REC	1	15-Jun-2014 21:17
<i>Surr: Dibromofluoromethane</i>	95.5			71-125	%REC	1	15-Jun-2014 21:17
<i>Surr: Toluene-d8</i>	98.0			75-125	%REC	1	15-Jun-2014 21:17
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	779		2.00	5.00	mg/L	10	18-Jun-2014 02:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: MW-6
Collection Date: 05-Jun-2014 16:20

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 21:41
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 21:41
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 21:41
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 21:41
Surr: 1,2-Dichloroethane-d4	93.2			70-125	%REC	1	15-Jun-2014 21:41
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	15-Jun-2014 21:41
Surr: Dibromofluoromethane	95.7			71-125	%REC	1	15-Jun-2014 21:41
Surr: Toluene-d8	98.7			75-125	%REC	1	15-Jun-2014 21:41
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	157		1.00	2.50	mg/L	5	19-Jun-2014 16:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
 Sample ID: MW-7
 Collection Date: 05-Jun-2014 15:52

ANALYTICAL REPORT

WorkOrder:HS14060344
 Lab ID:HS14060344-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	16-Jun-2014 21:32
Ethylbenzene	U		0.50	5.0	ug/L	1	16-Jun-2014 21:32
Toluene	U		0.50	5.0	ug/L	1	16-Jun-2014 21:32
Xylenes, Total	U		1.5	15	ug/L	1	16-Jun-2014 21:32
<i>Surr: 1,2-Dichloroethane-d4</i>	104			70-125	%REC	1	16-Jun-2014 21:32
<i>Surr: 4-Bromofluorobenzene</i>	99.9			72-125	%REC	1	16-Jun-2014 21:32
<i>Surr: Dibromofluoromethane</i>	102			71-125	%REC	1	16-Jun-2014 21:32
<i>Surr: Toluene-d8</i>	97.4			75-125	%REC	1	16-Jun-2014 21:32
ANIONS - EPA 300.0 (1993)		Method:E300				Analyst: KKB	
Chloride	178		1.00	2.50	mg/L	5	18-Jun-2014 02:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: MW-8
Collection Date: 05-Jun-2014 15:22

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	17-Jun-2014 11:40
Ethylbenzene	U		0.50	5.0	ug/L	1	17-Jun-2014 11:40
Toluene	U		0.50	5.0	ug/L	1	17-Jun-2014 11:40
Xylenes, Total	U		1.5	15	ug/L	1	17-Jun-2014 11:40
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	17-Jun-2014 11:40
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	1	17-Jun-2014 11:40
Surr: Dibromofluoromethane	104			71-125	%REC	1	17-Jun-2014 11:40
Surr: Toluene-d8	97.5			75-125	%REC	1	17-Jun-2014 11:40
ANIONS - EPA 300.0 (1993)			Method:E300			Analyst: KKB	
Chloride	306		1.00	2.50	mg/L	5	18-Jun-2014 03:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
Sample ID: Trip Blank-052814-17
Collection Date: 05-Jun-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14060344
Lab ID:HS14060344-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	15-Jun-2014 17:14
Ethylbenzene	U		0.50	5.0	ug/L	1	15-Jun-2014 17:14
Toluene	U		0.50	5.0	ug/L	1	15-Jun-2014 17:14
Xylenes, Total	U		1.5	15	ug/L	1	15-Jun-2014 17:14
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>93.0</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 17:14</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>100</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 17:14</i>
<i>Surr: Dibromofluoromethane</i>	<i>97.0</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 17:14</i>
<i>Surr: Toluene-d8</i>	<i>98.2</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>15-Jun-2014 17:14</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
WorkOrder: HS14060344

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R235596 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14060344-01	MW-1	05 Jun 2014 15:01			15 Jun 2014 18:51	1
HS14060344-02	MW-2	05 Jun 2014 15:10			15 Jun 2014 19:16	1
HS14060344-03	MW-3	05 Jun 2014 16:07			15 Jun 2014 19:40	1
HS14060344-04	MW-4	05 Jun 2014 16:30			15 Jun 2014 20:28	1
HS14060344-05	MW-5	05 Jun 2014 16:38			15 Jun 2014 21:17	1
HS14060344-06	MW-6	05 Jun 2014 16:20			15 Jun 2014 21:41	1
HS14060344-09	Trip Blank-052814-17	05 Jun 2014 00:00			15 Jun 2014 17:14	1
Batch ID R235690 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14060344-07	MW-7	05 Jun 2014 15:52			16 Jun 2014 21:32	1
Batch ID R235764 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14060344-08	MW-8	05 Jun 2014 15:22			17 Jun 2014 11:40	1
Batch ID R235768 Test Name : ANIONS - EPA 300.0 (1993) Matrix: Water						
HS14060344-02	MW-2	05 Jun 2014 15:10			18 Jun 2014 01:43	1000
HS14060344-03	MW-3	05 Jun 2014 16:07			18 Jun 2014 01:58	50
HS14060344-04	MW-4	05 Jun 2014 16:30			18 Jun 2014 02:13	100
HS14060344-05	MW-5	05 Jun 2014 16:38			18 Jun 2014 02:27	10
HS14060344-07	MW-7	05 Jun 2014 15:52			18 Jun 2014 02:56	5
HS14060344-08	MW-8	05 Jun 2014 15:22			18 Jun 2014 03:11	5
Batch ID R235983 Test Name : ANIONS - EPA 300.0 (1993) Matrix: Water						
HS14060344-01	MW-1	05 Jun 2014 15:01			19 Jun 2014 16:44	5000
HS14060344-06	MW-6	05 Jun 2014 16:20			19 Jun 2014 16:29	5

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235596		Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-140615	Units: ug/L				Analysis Date: 15-Jun-2014 12:23				
Client ID:	Run ID: VOA6_235596	SeqNo: 2881069				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	43.86	5.0	50	0	87.7	70 - 125				
Surr: 4-Bromofluorobenzene	50.34	5.0	50	0	101	72 - 125				
Surr: Dibromofluoromethane	46.75	5.0	50	0	93.5	71 - 125				
Surr: Toluene-d8	48.45	5.0	50	0	96.9	75 - 125				

LCS	Sample ID: VLCSW-140615	Units: ug/L				Analysis Date: 15-Jun-2014 11:36				
Client ID:	Run ID: VOA6_235596	SeqNo: 2881068				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.39	5.0	50	0	96.8	73 - 121				
Ethylbenzene	46.91	5.0	50	0	93.8	80 - 120				
Toluene	47.1	5.0	50	0	94.2	80 - 120				
Xylenes, Total	142.5	15	150	0	95.0	80 - 120				
Surr: 1,2-Dichloroethane-d4	44.17	5.0	50	0	88.3	70 - 125				
Surr: 4-Bromofluorobenzene	51.9	5.0	50	0	104	72 - 125				
Surr: Dibromofluoromethane	47.18	5.0	50	0	94.4	71 - 125				
Surr: Toluene-d8	50.54	5.0	50	0	101	75 - 125				

MS	Sample ID: HS14060474-09MS	Units: ug/L				Analysis Date: 15-Jun-2014 13:59				
Client ID:	Run ID: VOA6_235596	SeqNo: 2881071				PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	7645	500	5000	3291	87.1	73 - 121				
Ethylbenzene	4049	500	5000	0	81.0	80 - 120				
Toluene	4147	500	5000	0	82.9	80 - 120				
Xylenes, Total	12270	1500	15000	0	81.8	80 - 120				
Surr: 1,2-Dichloroethane-d4	4519	500	5000	0	90.4	70 - 125				
Surr: 4-Bromofluorobenzene	5202	500	5000	0	104	72 - 125				
Surr: Dibromofluoromethane	4775	500	5000	0	95.5	71 - 125				
Surr: Toluene-d8	5040	500	5000	0	101	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235596		Instrument: VOA6		Method: SW8260						
MSD	Sample ID: HS14060474-09MSD	Units: ug/L				Analysis Date: 15-Jun-2014 14:24				
Client ID:	Run ID: VOA6_235596	SeqNo: 2881072		PrepDate:		DF: 100				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	7798	500	5000	3291	90.2	73 - 121	7645	1.99	20	
Ethylbenzene	4498	500	5000	0	90.0	80 - 120	4049	10.5	20	
Toluene	4554	500	5000	0	91.1	80 - 120	4147	9.35	20	
Xylenes, Total	13670	1500	15000	0	91.1	78 - 121	12270	10.8	20	
Surr: 1,2-Dichloroethane-d4	4466	500	5000	0	89.3	70 - 125	4519	1.19	20	
Surr: 4-Bromofluorobenzene	5223	500	5000	0	104	72 - 125	5202	0.386	20	
Surr: Dibromofluoromethane	4700	500	5000	0	94.0	71 - 125	4775	1.59	20	
Surr: Toluene-d8	5037	500	5000	0	101	75 - 125	5040	0.0655	20	
The following samples were analyzed in this batch:										
HS14060344-01		HS14060344-02		HS14060344-03		HS14060344-04				
HS14060344-05		HS14060344-06		HS14060344-09						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235690		Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-140616	Units: ug/L				Analysis Date: 16-Jun-2014 18:17				
Client ID:	Run ID: VOA6_235690	SeqNo: 2882943				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	52.29	5.0	50	0	105	70 - 125				
Surr: 4-Bromofluorobenzene	49.12	5.0	50	0	98.2	72 - 125				
Surr: Dibromofluoromethane	49.96	5.0	50	0	99.9	71 - 125				
Surr: Toluene-d8	48.72	5.0	50	0	97.4	75 - 125				

LCS	Sample ID: VLCSW-140616	Units: ug/L				Analysis Date: 16-Jun-2014 16:39				
Client ID:	Run ID: VOA6_235690	SeqNo: 2882942				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.46	5.0	50	0	88.9	73 - 121				
Ethylbenzene	44.15	5.0	50	0	88.3	80 - 120				
Toluene	44.53	5.0	50	0	89.1	80 - 120				
Xylenes, Total	134.5	15	150	0	89.7	80 - 120				
Surr: 1,2-Dichloroethane-d4	50.22	5.0	50	0	100	70 - 125				
Surr: 4-Bromofluorobenzene	51.11	5.0	50	0	102	72 - 125				
Surr: Dibromofluoromethane	49.45	5.0	50	0	98.9	71 - 125				
Surr: Toluene-d8	50.39	5.0	50	0	101	75 - 125				

MS	Sample ID: HS14060345-01MS	Units: ug/L				Analysis Date: 16-Jun-2014 20:43				
Client ID:	Run ID: VOA6_235690	SeqNo: 2882949				PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	686.3	25	250	526.6	63.9	73 - 121				S
Ethylbenzene	230.8	25	250	22.91	83.1	80 - 120				
Toluene	213.4	25	250	0	85.4	80 - 120				
Xylenes, Total	657.7	75	750	10.49	86.3	80 - 120				
Surr: 1,2-Dichloroethane-d4	257.9	25	250	0	103	70 - 125				
Surr: 4-Bromofluorobenzene	256.7	25	250	0	103	72 - 125				
Surr: Dibromofluoromethane	248.5	25	250	0	99.4	71 - 125				
Surr: Toluene-d8	254	25	250	0	102	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235690		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14060345-01MSD		Units: ug/L		Analysis Date: 16-Jun-2014 21:07				
Client ID:		Run ID: VOA6_235690		SeqNo: 2882950		PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	710.3	25	250	526.6	73.5	73 - 121	686.3	3.44	20	
Ethylbenzene	245.9	25	250	22.91	89.2	80 - 120	230.8	6.35	20	
Toluene	224.2	25	250	0	89.7	80 - 120	213.4	4.92	20	
Xylenes, Total	694.5	75	750	10.49	91.2	78 - 121	657.7	5.44	20	
Surr: 1,2-Dichloroethane-d4	256.6	25	250	0	103	70 - 125	257.9	0.507	20	
Surr: 4-Bromofluorobenzene	256.3	25	250	0	103	72 - 125	256.7	0.134	20	
Surr: Dibromofluoromethane	254.3	25	250	0	102	71 - 125	248.5	2.32	20	
Surr: Toluene-d8	252.4	25	250	0	101	75 - 125	254	0.662	20	
The following samples were anayzed in this batch:										
		HS14060344-07		HS14060344-08						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235764		Instrument: VOA6		Method: SW8260						
MBLK	Sample ID: VBLKW-140617	Units: ug/L				Analysis Date: 17-Jun-2014 10:51				
Client ID:	Run ID: VOA6_235764	SeqNo: 2884980				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	53.11	5.0	50	0	106	70 - 125				
Surr: 4-Bromofluorobenzene	49.48	5.0	50	0	99.0	72 - 125				
Surr: Dibromofluoromethane	51.26	5.0	50	0	103	71 - 125				
Surr: Toluene-d8	49.05	5.0	50	0	98.1	75 - 125				

LCS	Sample ID: VLCSW-140617	Units: ug/L				Analysis Date: 17-Jun-2014 09:38				
Client ID:	Run ID: VOA6_235764	SeqNo: 2884979				PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.52	5.0	50	0	93.0	73 - 121				
Ethylbenzene	45.75	5.0	50	0	91.5	80 - 120				
Toluene	46.07	5.0	50	0	92.1	80 - 120				
Xylenes, Total	139.3	15	150	0	92.8	80 - 120				
Surr: 1,2-Dichloroethane-d4	50.84	5.0	50	0	102	70 - 125				
Surr: 4-Bromofluorobenzene	50.91	5.0	50	0	102	72 - 125				
Surr: Dibromofluoromethane	50.84	5.0	50	0	102	71 - 125				
Surr: Toluene-d8	50.64	5.0	50	0	101	75 - 125				

MS	Sample ID: HS14060650-01MS	Units: ug/L				Analysis Date: 17-Jun-2014 12:52				
Client ID:	Run ID: VOA6_235764	SeqNo: 2884985				PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1049	120	1250	0	83.9	73 - 121				
Ethylbenzene	1014	120	1250	0	81.1	80 - 120				
Toluene	1044	120	1250	0	83.5	80 - 120				
Xylenes, Total	3097	380	3750	0	82.6	80 - 120				
Surr: 1,2-Dichloroethane-d4	1312	120	1250	0	105	70 - 125				
Surr: 4-Bromofluorobenzene	1235	120	1250	0	98.8	72 - 125				
Surr: Dibromofluoromethane	1251	120	1250	0	100	71 - 125				
Surr: Toluene-d8	1273	120	1250	0	102	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235764		Instrument: VOA6		Method: SW8260						
MSD	Sample ID: HS14060650-01MSD	Units: ug/L				Analysis Date: 17-Jun-2014 13:17				
Client ID:	Run ID: VOA6_235764	SeqNo: 2884986		PrepDate:		DF: 25				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1053	120	1250	0	84.2	73 - 121	1049	0.36	20	
Ethylbenzene	1061	120	1250	0	84.8	80 - 120	1014	4.51	20	
Toluene	1072	120	1250	0	85.7	80 - 120	1044	2.59	20	
Xylenes, Total	3201	380	3750	0	85.4	78 - 121	3097	3.3	20	
Surr: 1,2-Dichloroethane-d4	1283	120	1250	0	103	70 - 125	1312	2.18	20	
Surr: 4-Bromofluorobenzene	1261	120	1250	0	101	72 - 125	1235	2.13	20	
Surr: Dibromofluoromethane	1243	120	1250	0	99.5	71 - 125	1251	0.594	20	
Surr: Toluene-d8	1270	120	1250	0	102	75 - 125	1273	0.26	20	

The following samples were analyzed in this batch: HS14060344-08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235768		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 17-Jun-2014 22:34						
Client ID:	Run ID: ICS2100_235768		SeqNo: 2885099		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 17-Jun-2014 22:49						
Client ID:	Run ID: ICS2100_235768		SeqNo: 2885100		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.44	0.500	20	0	102	90 - 110				
MS	Sample ID: HS14060343-02MS	Units: mg/L		Analysis Date: 18-Jun-2014 00:16						
Client ID:	Run ID: ICS2100_235768		SeqNo: 2885106		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	152.5	0.500	10	143.1	93.7	80 - 120				EO
MSD	Sample ID: HS14060343-02MSD	Units: mg/L		Analysis Date: 18-Jun-2014 00:31						
Client ID:	Run ID: ICS2100_235768		SeqNo: 2885107		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	150.3	0.500	10	143.1	71.7	80 - 120	152.5	1.46	20	SEO
The following samples were analyzed in this batch:										
			HS14060344-01	HS14060344-02	HS14060344-03	HS14060344-04				
			HS14060344-05	HS14060344-06	HS14060344-07	HS14060344-08				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14060344
 Project: 55629DM GSHI PXP UT Hobbs R 10 ATB

QC BATCH REPORT

Batch ID: R235983		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW1	Units: mg/L		Analysis Date: 19-Jun-2014 15:45						
Client ID:	Run ID: ICS2100_235983		SeqNo: 2888775		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW1	Units: mg/L		Analysis Date: 19-Jun-2014 16:00						
Client ID:	Run ID: ICS2100_235983		SeqNo: 2888776		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.89	0.500	20	0	99.4	90 - 110				
MS	Sample ID: HS14060574-01MS	Units: mg/L		Analysis Date: 19-Jun-2014 18:11						
Client ID:	Run ID: ICS2100_235983		SeqNo: 2888785		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.06	0.500	10	0.041	100	80 - 120				
MSD	Sample ID: HS14060574-01MSD	Units: mg/L		Analysis Date: 19-Jun-2014 18:55						
Client ID:	Run ID: ICS2100_235983		SeqNo: 2888788		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.01	0.500	10	0.041	99.7	80 - 120	10.06	0.478	20	
The following samples were analyzed in this batch:										
			HS14060344-01 HS14060344-06							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55629DM GSHI PXP UT Hobbs R 10 ATB
WorkOrder: HS14060344

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2013-024	31-Aug-2014
Texas	TX104704231-14-13	30-Apr-2015

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **07-Jun-2014 09:10**

Work Order: HS14060344

Received by: **DRC**Checklist completed by: Dana.Capps 9-Jun-2014
eSignature DateReviewed by: Dane J. Wacasey 11-Jun-2014
eSignature DateMatrices: **WATER**Carrier name: **ALS Courier**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping 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 ☐	
Temperature(s)/Thermometer(s):	0.9/0.9 c/u IR3		
Cooler(s)/Kit(s):	4772		
Date/Time sample(s) sent to storage:	06/09/2014		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



Environmental

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Chain of Custody Fo

Page 1 of 1

COC ID: 09897

HS14060344

Glenn Springs Holdings

GSHI PXP UT Hobbs R#10 ATB 55629DM (ENV749A002)

ston, WV
1168

280

ALS Project Manager:



Customer Information		Project Information		
Purchase Order	4501709538	Project Name	GSHI PXP UT Hobbs R#10 ATB	A BTEX (8260)
Work Order		Project Number	55629DM (ENV749A002)	B Chloride by 300
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings	C
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire	D
Address	C/O CRA	Address	C/O CRA	E
	9033 Meridian Way		2055 Niagara Falls Blvd. Suite 3	F
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304	G
Phone	(513) 942-4750	Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	6-5-14	1501	Water	1,8	4	X	X									
2	MW-2	6-5-14	1510	Water	1,8	4	X	X									
3	MW-3	6-5-14	1607	Water	1,8	4	X	X									
4	MW-4	6-5-14	1630	Water	1,8	4	X	X									
5	MW-5	6-5-14	1638	Water	1,8	4	X	X									
6	MW-6	6-5-14	1620	Water	1,8	4	X	X									
7	MW-7	6-5-14	1552	Water	1,8	4	X	X									
8	MW-8	6-5-14	1522	Water	1,8	4	X	X									
9	Trip Blank - 052314-17	6-5-14	PM	Water	1,8	2	X										
10																	

Sampler(s) Please Print & Sign <i>Ryan Werner</i>		Shipment Method <i>FEDEX</i>		Required Turnaround Time: (Check Box) ☒ Std. 10 WK. days ☐ 5 WK. Days ☐ 2 WK. Days ☐ 24 Hour		Results Due Date:	
Relinquished by: <i>Ryan Werner</i>	Date: <i>6/6/14</i>	Time: <i>1100</i>	Received by: <i>[Signature]</i>	Notes: 10 Day TAT			
Relinquished by:	Date: <i>6/17/14</i>	Time: <i>4/0</i>	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			☒ Level 2 Std QC ☐ TRRP ChkList ☐ Level 3 Std QC/Row da ☐ TRRP Level 4 ☐ Level 4 SW646/CLP ☐ Other/EDD	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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3 of 4
 MPS# 7800 0502 7998
 0681
 Mstr# 8042 5198 7033 0215
XO SGRA
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 PRIORITY OVERNIGHT
 77099
 TX-US IAH



ALS Environmental
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Date:
 Name:
 Company:

CUSTODY SEAL

6-6-19 Time: 11:00
 Rechecked by: Max Titan

Seal Broken By:

Date:



10450 Stancliff Rd. Suite 210
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October 03, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14090808**

Laboratory Results for: **GSHI PXP UT Hobbs R10 ATB**

Dear Angela,

ALS Environmental received 9 sample(s) on Sep 19, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane Wacasey".

Generated By: Dane.Wacasey

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Work Order: HS14090808

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14090808-01	MW-1	Water		17-Sep-2014 16:00	19-Sep-2014 10:22	☐
HS14090808-02	MW-2	Water		17-Sep-2014 15:07	19-Sep-2014 10:22	☐
HS14090808-03	MW-3	Water		17-Sep-2014 14:00	19-Sep-2014 10:22	☐
HS14090808-04	MW-4	Water		17-Sep-2014 12:59	19-Sep-2014 10:22	☐
HS14090808-05	MW-5	Water		17-Sep-2014 11:51	19-Sep-2014 10:22	☐
HS14090808-06	MW-6	Water		17-Sep-2014 08:58	19-Sep-2014 10:22	☐
HS14090808-07	MW-7	Water		17-Sep-2014 10:05	19-Sep-2014 10:22	☐
HS14090808-08	MW-8	Water		17-Sep-2014 10:55	19-Sep-2014 10:22	☐
HS14090808-09	Trip Blank	Water		17-Sep-2014 00:00	19-Sep-2014 10:22	☐

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Work Order: HS14090808

CASE NARRATIVE

Work Order Comments

- Analyst Names and Initials:
JBA Johnnie B. Allen
PC Presenta Cabascango

GCMS Volatiles by Method SW8260

Batch ID: R241222

Sample ID: **HS14090727-07MSD**

- MS/MSD was performed on an unrelated sample.

Sample ID: **MW-1 (HS14090808-01)**

- Surrogate 1,2-Dichloroethane-d4 was recovered high. No target analytes were detected in the sample. Slight positive bias does not impact data quality.

Batch ID: R241325

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Wet Chemistry by Method E300

Batch ID: R242143

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Glenn Springs Holdings
 Project: GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-1
 Collection Date: 17-Sep-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14090808
 Lab ID:HS14090808-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 19:57
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 19:57
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 19:57
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 19:57
<i>Surr: 1,2-Dichloroethane-d4</i>	129	S		70-125	%REC	1	21-Sep-2014 19:57
<i>Surr: 4-Bromofluorobenzene</i>	98.2			72-125	%REC	1	21-Sep-2014 19:57
<i>Surr: Dibromofluoromethane</i>	115			71-125	%REC	1	21-Sep-2014 19:57
<i>Surr: Toluene-d8</i>	95.5			75-125	%REC	1	21-Sep-2014 19:57
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	129,000		400	1000	mg/L	2000	03-Oct-2014 10:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-2
 Collection Date: 17-Sep-2014 15:07

ANALYTICAL REPORT

WorkOrder:HS14090808
 Lab ID:HS14090808-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 20:23
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 20:23
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 20:23
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 20:23
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>109</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 20:23</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>100</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 20:23</i>
<i>Surr: Dibromofluoromethane</i>	<i>104</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 20:23</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 20:23</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	12,900		200	500	mg/L	1000	02-Oct-2014 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-3
 Collection Date: 17-Sep-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14090808
 Lab ID:HS14090808-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 20:49
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 20:49
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 20:49
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 20:49
<i>Surr: 1,2-Dichloroethane-d4</i>	96.2			70-125	%REC	1	21-Sep-2014 20:49
<i>Surr: 4-Bromofluorobenzene</i>	100			72-125	%REC	1	21-Sep-2014 20:49
<i>Surr: Dibromofluoromethane</i>	97.6			71-125	%REC	1	21-Sep-2014 20:49
<i>Surr: Toluene-d8</i>	103			75-125	%REC	1	21-Sep-2014 20:49
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	1,020		200	500	mg/L	1000	02-Oct-2014 20:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-4
 Collection Date: 17-Sep-2014 12:59

ANALYTICAL REPORT

WorkOrder:HS14090808
 Lab ID:HS14090808-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 21:14
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 21:14
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 21:14
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 21:14
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>98.4</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:14</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>102</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:14</i>
<i>Surr: Dibromofluoromethane</i>	<i>101</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:14</i>
<i>Surr: Toluene-d8</i>	<i>102</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:14</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	2,530		200	500	mg/L	1000	02-Oct-2014 21:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Sample ID: MW-5
Collection Date: 17-Sep-2014 11:51

ANALYTICAL REPORT

WorkOrder:HS14090808
Lab ID:HS14090808-05
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 21:40
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 21:40
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 21:40
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 21:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>97.7</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>98.0</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>98.3</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:40</i>
<i>Surr: Toluene-d8</i>	<i>96.2</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>21-Sep-2014 21:40</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	799		20.0	50.0	mg/L	100	03-Oct-2014 12:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Sample ID: MW-6
Collection Date: 17-Sep-2014 08:58

ANALYTICAL REPORT

WorkOrder:HS14090808
Lab ID:HS14090808-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 22:06
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 22:06
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 22:06
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 22:06
Surr: 1,2-Dichloroethane-d4	98.5			70-125	%REC	1	21-Sep-2014 22:06
Surr: 4-Bromofluorobenzene	97.0			72-125	%REC	1	21-Sep-2014 22:06
Surr: Dibromofluoromethane	97.9			71-125	%REC	1	21-Sep-2014 22:06
Surr: Toluene-d8	97.0			75-125	%REC	1	21-Sep-2014 22:06
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	118		2.00	5.00	mg/L	10	03-Oct-2014 14:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-7
 Collection Date: 17-Sep-2014 10:05

ANALYTICAL REPORT

WorkOrder:HS14090808
 Lab ID:HS14090808-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	21-Sep-2014 22:32
Ethylbenzene	U		0.50	5.0	ug/L	1	21-Sep-2014 22:32
Toluene	U		0.50	5.0	ug/L	1	21-Sep-2014 22:32
Xylenes, Total	U		1.5	15	ug/L	1	21-Sep-2014 22:32
<i>Surr: 1,2-Dichloroethane-d4</i>	90.2			70-125	%REC	1	21-Sep-2014 22:32
<i>Surr: 4-Bromofluorobenzene</i>	95.8			72-125	%REC	1	21-Sep-2014 22:32
<i>Surr: Dibromofluoromethane</i>	95.4			71-125	%REC	1	21-Sep-2014 22:32
<i>Surr: Toluene-d8</i>	101			75-125	%REC	1	21-Sep-2014 22:32
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	138		2.00	5.00	mg/L	10	03-Oct-2014 15:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Sample ID: MW-8
Collection Date: 17-Sep-2014 10:55

ANALYTICAL REPORT

WorkOrder:HS14090808
Lab ID:HS14090808-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	22-Sep-2014 13:47
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Sep-2014 13:47
Toluene	U		0.50	5.0	ug/L	1	22-Sep-2014 13:47
Xylenes, Total	U		1.5	15	ug/L	1	22-Sep-2014 13:47
<i>Surr: 1,2-Dichloroethane-d4</i>	106			70-125	%REC	1	22-Sep-2014 13:47
<i>Surr: 4-Bromofluorobenzene</i>	97.9			72-125	%REC	1	22-Sep-2014 13:47
<i>Surr: Dibromofluoromethane</i>	105			71-125	%REC	1	22-Sep-2014 13:47
<i>Surr: Toluene-d8</i>	93.5			75-125	%REC	1	22-Sep-2014 13:47
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	240		2.00	5.00	mg/L	10	03-Oct-2014 15:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
Sample ID: Trip Blank
Collection Date: 17-Sep-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14090808
Lab ID:HS14090808-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260					Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	22-Sep-2014 16:37
Ethylbenzene	U		0.50	5.0	ug/L	1	22-Sep-2014 16:37
Toluene	U		0.50	5.0	ug/L	1	22-Sep-2014 16:37
Xylenes, Total	U		1.5	15	ug/L	1	22-Sep-2014 16:37
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	22-Sep-2014 16:37
Surr: 4-Bromofluorobenzene	96.8			72-125	%REC	1	22-Sep-2014 16:37
Surr: Dibromofluoromethane	106			71-125	%REC	1	22-Sep-2014 16:37
Surr: Toluene-d8	93.8			75-125	%REC	1	22-Sep-2014 16:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
WorkOrder: HS14090808

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R241222 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14090808-01	MW-1	17 Sep 2014 16:00			21 Sep 2014 19:57	1
HS14090808-02	MW-2	17 Sep 2014 15:07			21 Sep 2014 20:23	1
HS14090808-03	MW-3	17 Sep 2014 14:00			21 Sep 2014 20:49	1
HS14090808-04	MW-4	17 Sep 2014 12:59			21 Sep 2014 21:14	1
HS14090808-05	MW-5	17 Sep 2014 11:51			21 Sep 2014 21:40	1
HS14090808-06	MW-6	17 Sep 2014 08:58			21 Sep 2014 22:06	1
HS14090808-07	MW-7	17 Sep 2014 10:05			21 Sep 2014 22:32	1
Batch ID R241325 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14090808-08	MW-8	17 Sep 2014 10:55			22 Sep 2014 13:47	1
HS14090808-09	Trip Blank	17 Sep 2014 00:00			22 Sep 2014 16:37	1
Batch ID R242143 Test Name : ANIONS BY E300.0 Matrix: Water						
HS14090808-01	MW-1	17 Sep 2014 16:00			03 Oct 2014 10:06	2000
HS14090808-02	MW-2	17 Sep 2014 15:07			02 Oct 2014 20:31	1000
HS14090808-03	MW-3	17 Sep 2014 14:00			02 Oct 2014 20:55	1000
HS14090808-04	MW-4	17 Sep 2014 12:59			02 Oct 2014 21:19	1000
HS14090808-05	MW-5	17 Sep 2014 11:51			03 Oct 2014 12:29	100
HS14090808-06	MW-6	17 Sep 2014 08:58			03 Oct 2014 14:53	10
HS14090808-07	MW-7	17 Sep 2014 10:05			03 Oct 2014 15:17	10
HS14090808-08	MW-8	17 Sep 2014 10:55			03 Oct 2014 15:41	10

Client: Glenn Springs Holdings
 WorkOrder: HS14090808
 Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R241222		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140921	Units: ug/L		Analysis Date: 21-Sep-2014 13:00					
Client ID:	Run ID: VOA1_241222		SeqNo: 3011797		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	48.2	5.0	50	0	96.4	70 - 125			
Surr: 4-Bromofluorobenzene	47.78	5.0	50	0	95.6	72 - 125			
Surr: Dibromofluoromethane	47.09	5.0	50	0	94.2	71 - 125			
Surr: Toluene-d8	49.46	5.0	50	0	98.9	75 - 125			

LCS	Sample ID: VLCSW-140921	Units: ug/L		Analysis Date: 21-Sep-2014 11:43					
Client ID:	Run ID: VOA1_241222		SeqNo: 3011792		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.97	5.0	50	0	99.9	73 - 121			
Ethylbenzene	48.45	5.0	50	0	96.9	80 - 120			
Toluene	43.81	5.0	50	0	87.6	80 - 120			
Xylenes, Total	142.9	15	150	0	95.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	43.66	5.0	50	0	87.3	70 - 125			
Surr: 4-Bromofluorobenzene	50.54	5.0	50	0	101	72 - 125			
Surr: Dibromofluoromethane	44.24	5.0	50	0	88.5	71 - 125			
Surr: Toluene-d8	48.67	5.0	50	0	97.3	75 - 125			

MS	Sample ID: HS14090727-07MS	Units: ug/L		Analysis Date: 21-Sep-2014 13:52					
Client ID:	Run ID: VOA1_241222		SeqNo: 3011799		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1203	120	1250	0	96.3	73 - 121			
Ethylbenzene	1083	120	1250	0	86.7	80 - 120			
Toluene	1041	120	1250	0	83.3	80 - 120			
Xylenes, Total	3219	380	3750	0	85.9	80 - 120			
Surr: 1,2-Dichloroethane-d4	1150	120	1250	0	92.0	70 - 125			
Surr: 4-Bromofluorobenzene	1240	120	1250	0	99.2	72 - 125			
Surr: Dibromofluoromethane	1192	120	1250	0	95.4	71 - 125			
Surr: Toluene-d8	1203	120	1250	0	96.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14090808
 Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R241222		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS14090727-07MSD		Units: ug/L		Analysis Date: 21-Sep-2014 14:18				
Client ID:		Run ID: VOA1_241222		SeqNo: 3011800		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1150	120	1250	0	92.0	73 - 121	1203	4.51	20	
Ethylbenzene	1066	120	1250	0	85.3	80 - 120	1083	1.59	20	
Toluene	988.5	120	1250	0	79.1	80 - 120	1041	5.15	20	S
Xylenes, Total	3243	380	3750	0	86.5	78 - 121	3219	0.744	20	
Surr: 1,2-Dichloroethane-d4	1148	120	1250	0	91.9	70 - 125	1150	0.118	20	
Surr: 4-Bromofluorobenzene	1167	120	1250	0	93.3	72 - 125	1240	6.13	20	
Surr: Dibromofluoromethane	1207	120	1250	0	96.5	71 - 125	1192	1.19	20	
Surr: Toluene-d8	1202	120	1250	0	96.2	75 - 125	1203	0.0653	20	
The following samples were analyzed in this batch:										
			HS14090808-01	HS14090808-02	HS14090808-03	HS14090808-04				
			HS14090808-05	HS14090808-06	HS14090808-07					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14090808
 Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R241325		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140922	Units: ug/L		Analysis Date: 22-Sep-2014 12:59					
Client ID:	Run ID: VOA6_241325	SeqNo: 3013928		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	52.92	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	48.91	5.0	50	0	97.8	72 - 125			
Surr: Dibromofluoromethane	52.91	5.0	50	0	106	71 - 125			
Surr: Toluene-d8	47.16	5.0	50	0	94.3	75 - 125			

LCS	Sample ID: VLCSW-140922	Units: ug/L		Analysis Date: 22-Sep-2014 11:46					
Client ID:	Run ID: VOA6_241325	SeqNo: 3013927		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.14	5.0	50	0	98.3	73 - 121			
Ethylbenzene	45.39	5.0	50	0	90.8	80 - 120			
Toluene	46.13	5.0	50	0	92.3	80 - 120			
Xylenes, Total	135.7	15	150	0	90.4	80 - 120			
Surr: 1,2-Dichloroethane-d4	52.13	5.0	50	0	104	70 - 125			
Surr: 4-Bromofluorobenzene	51.38	5.0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	53.37	5.0	50	0	107	71 - 125			
Surr: Toluene-d8	48.67	5.0	50	0	97.3	75 - 125			

MS	Sample ID: HS14090808-08MS	Units: ug/L		Analysis Date: 22-Sep-2014 14:36					
Client ID: MW-8	Run ID: VOA6_241325	SeqNo: 3013932		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46	5.0	50	0	92.0	73 - 121			
Ethylbenzene	42.2	5.0	50	0	84.4	80 - 120			
Toluene	43.29	5.0	50	0	86.6	80 - 120			
Xylenes, Total	127.4	15	150	0	84.9	80 - 120			
Surr: 1,2-Dichloroethane-d4	52.87	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	51.44	5.0	50	0	103	72 - 125			
Surr: Dibromofluoromethane	53.72	5.0	50	0	107	71 - 125			
Surr: Toluene-d8	48.22	5.0	50	0	96.4	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14090808
 Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R241325		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14090808-08MSD		Units: ug/L		Analysis Date: 22-Sep-2014 15:00				
Client ID: MW-8		Run ID: VOA6_241325		SeqNo: 3013933		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.73	5.0	50	0	95.5	73 - 121	46	3.69	20	
Ethylbenzene	44.31	5.0	50	0	88.6	80 - 120	42.2	4.86	20	
Toluene	45.5	5.0	50	0	91.0	80 - 120	43.29	4.98	20	
Xylenes, Total	133.3	15	150	0	88.8	78 - 121	127.4	4.5	20	
Surr: 1,2-Dichloroethane-d4	52.3	5.0	50	0	105	70 - 125	52.87	1.09	20	
Surr: 4-Bromofluorobenzene	51.22	5.0	50	0	102	72 - 125	51.44	0.427	20	
Surr: Dibromofluoromethane	53.08	5.0	50	0	106	71 - 125	53.72	1.2	20	
Surr: Toluene-d8	48.2	5.0	50	0	96.4	75 - 125	48.22	0.0381	20	
The following samples were analyzed in this batch: HS14090808-08 HS14090808-09										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14090808
 Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R242143		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW1-100214	Units: mg/L		Analysis Date: 02-Oct-2014 14:56						
Client ID:	Run ID: ICS3000_242143	SeqNo: 3032049		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW1-100214	Units: mg/L		Analysis Date: 02-Oct-2014 15:20						
Client ID:	Run ID: ICS3000_242143	SeqNo: 3032050		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.3	0.500	20	0	101	90 - 110				
LCSD	Sample ID: WLCSDW1-100214	Units: mg/L		Analysis Date: 02-Oct-2014 15:44						
Client ID:	Run ID: ICS3000_242143	SeqNo: 3032051		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.54	0.500	20	0	103	90 - 110	20.3	1.19	20	
MS	Sample ID: HS14090834-04MS	Units: mg/L		Analysis Date: 03-Oct-2014 01:43						
Client ID:	Run ID: ICS3000_242143	SeqNo: 3032063		PrepDate:		DF: 1000				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	56240	500	10000	46150	101	80 - 120				O
MS	Sample ID: HS14090808-01MS	Units: mg/L		Analysis Date: 03-Oct-2014 10:30						
Client ID: MW-1	Run ID: ICS3000_242143	SeqNo: 3032320		PrepDate:		DF: 2000				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	146500	1000	20000	128600	89.7	80 - 120				O
MSD	Sample ID: HS14090834-04MSD	Units: mg/L		Analysis Date: 03-Oct-2014 02:07						
Client ID:	Run ID: ICS3000_242143	SeqNo: 3032064		PrepDate:		DF: 1000				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	56870	500	10000	46150	107	80 - 120	56240	1.12	20	O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
WorkOrder: HS14090808
Project: GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R242143		Instrument: ICS3000		Method: E300	
MSD	Sample ID: HS14090808-01MSD	Units: mg/L		Analysis Date: 03-Oct-2014 10:54	
Client ID: MW-1	Run ID: ICS3000_242143		SeqNo: 3032321	PrepDate:	DF: 2000
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	146900	1000	20000	128600 91.8	80 - 120 146500 0.286 20 O
The following samples were analyzed in this batch:					
HS14090808-01		HS14090808-02		HS14090808-03	
HS14090808-05		HS14090808-06		HS14090808-07	
				HS14090808-04	
				HS14090808-08	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: GSHI PXP UT Hobbs R10 ATB
WorkOrder: HS14090808

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **19-Sep-2014 10:22**

Work Order: HS14090808

Received by: **JOD**Checklist completed by: Paresh M. Giga 19-Sep-2014
eSignature DateReviewed by: Dane J. Wacasey 23-Sep-2014
eSignature DateMatrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping 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 ☐	

Temperature(s)/Thermometer(s):

1.3c/1.3c c/U

IR1

Cooler(s)/Kit(s):

1485

Date/Time sample(s) sent to storage:

9/20/14 08:45

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



Environmental

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+1 425 356 2600

Fort Collins, CO
+1 970 490 1511

Holland, MI
+1 616 399 6070

Chain of Custody For

Page 1 of 1

COC ID: 11207

HS14090808

Glenn Springs Holdings
GSHI PXP UT Hobbs R#10 ATB

on, WV
58

50



ALS Project Manager:

Customer Information		Project Information		
Purchase Order	4501709538	Project Name	GSHI PXP UT Hobbs R#10 ATB	A BTEX (8260)
Work Order		Project Number	55629DM (ENV749A002)	B Chloride by 300
Company Name	Glenn Springs Holdings	Bill To Company	Glenn Springs Holdings	C
Send Report To	Angela Bown	Invoice Attn	Jennifer Devonshire	D
Address	C/O CRA	Address	C/O CRA	E
	9033 Meridian Way		2055 Niagara Falls Blvd. Suite 3	F
City/State/Zip	West Chester, Ohio, 45069	City/State/Zip	Niagara Falls, NY 14304	G
Phone	(513) 942-4750	Phone		H
Fax		Fax		I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	9-17-14	1600	Water		4	X	X									
2	MW-2		1507	Water		4	X	X									
3	MW-3		1400	Water		4	X	X									
4	MW-4		1259	Water		4	X	X									
5	MW-5		1151	Water		4	X	X									
6	MW-6		0858	Water		4	X	X									
7	MW-7		1005	Water		4	X	X									
8	MW-8		1055	Water		4	X	X									
9	Trip Blank			Water		2	X										
10																	

Sampler(s) Please Print & Sign <i>John T. Norman</i>		Shipment Method FedEx		Required Turnaround Time: (Check Box) ☒ Std 10 Wk days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:	
Relinquished by: <i>[Signature]</i>		Date: 9-18-14 Time: 1530		Received by:		Notes: 10 Day TAT			
Relinquished by:		Date:		Received by (Laboratory):		Cooler ID: 1485 Cooler Temp: 1.3		QC Package: (Check One Box Below)	
Logged by (Laboratory):		Date: 9/19/14 Time: 1022		Checked by (Laboratory):				☒ Level 2 Std QC ☐ TRRP Child 1st ☐ Level 3 Std QC/Row data ☐ TRRP Level 4 ☐ Level 4 SV/348/CLP ☐ Other/EDD	
Preservative Key: 1-HCl 2-HNO ₃ 3-Fl ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035									

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document.

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ORIGIN ID:CVNA

SHIP DATE: 18SEP14
ACTWGT: 27.0 LB
CAD: /POS1501
DIMS: 19x12x11 IN

BILL RECIPIENT

UNITED STATES US

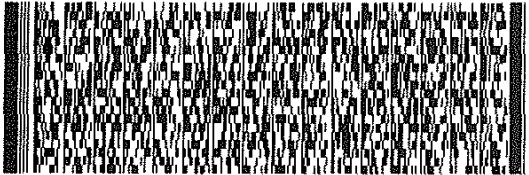
TO CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF RD
STE 210
HOUSTON TX 77099

(281) 530-5656

REF:

INVT:

DEPT:



FedEx
Express



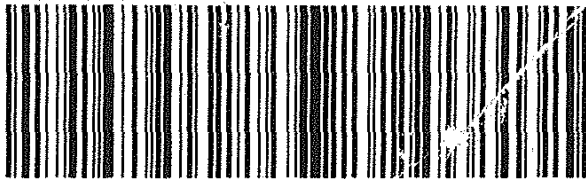
2 of 3
MPS# 7801 4271 6346
0681
Mstr# 8060 3811 2732

0215

FRI - 19 SEP 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH



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10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date: 9/18
Name: [Signature]
Company: [Signature]

CUSTODY SEAL
Time: 7:530

Seal Broken By: [Signature]
Date: 9/19/14

9/19/14



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ental
10

Date: 9/18
Name: [Signature]
Company: [Signature]
CUSTODY SEAL
Time: 15:30

Seal Broken By: [Signature]
Date: 9/19/14

9/19/14
500

500



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December 01, 2014

Angela Bown
Glenn Springs Holdings
C/O CRA
2055 Niagara Falls Blvd. Suite 3
Niagara Falls, NY 14304

Work Order: **HS14110821**

Laboratory Results for: **55269DM GSHI PXP UT Hobbs R10 ATB**

Dear Angela,

ALS Environmental received 9 sample(s) on Nov 22, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dane Wacasey".

Generated By: Dayna.Fisher

Dane J. Wacasey

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Work Order: HS14110821

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14110821-01	MW-1	Water		19-Nov-2014 13:40	22-Nov-2014 09:40	☐
HS14110821-02	MW-2	Water		19-Nov-2014 13:30	22-Nov-2014 09:40	☐
HS14110821-03	MW-3	Water		19-Nov-2014 13:00	22-Nov-2014 09:40	☐
HS14110821-04	MW-4	Water		19-Nov-2014 14:00	22-Nov-2014 09:40	☐
HS14110821-05	MW-5	Water		19-Nov-2014 13:50	22-Nov-2014 09:40	☐
HS14110821-06	MW-6	Water		19-Nov-2014 14:25	22-Nov-2014 09:40	☐
HS14110821-07	MW-7	Water		19-Nov-2014 13:10	22-Nov-2014 09:40	☐
HS14110821-08	MW-8	Water		19-Nov-2014 13:15	22-Nov-2014 09:40	☐
HS14110821-09	Trip Blank 111014-08	Water		19-Nov-2014 00:00	22-Nov-2014 09:40	☐

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Work Order: HS14110821

CASE NARRATIVE

Work Order Comments

- Analyst Initials and Names:
JBA Johnnie B. Allen
PC Presenta Cabascango
-

GCMS Volatiles by Method SW8260

Batch ID: R245735

- Sample ID: **HS14110820-01**
- MS/MSD performed on an unrelated sample

Batch ID: R245718,R245731

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

WetChemistry by Method E300

Batch ID: R245782

- Sample ID: **HS14110818-06**
- MS/MSD performed on an unrelated sample
-

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-1
 Collection Date: 19-Nov-2014 13:40

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 13:35
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 13:35
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 13:35
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 13:35
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>118</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 13:35</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>103</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 13:35</i>
<i>Surr: Dibromofluoromethane</i>	<i>103</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 13:35</i>
<i>Surr: Toluene-d8</i>	<i>99.4</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 13:35</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	124,000		400	1000	mg/L	2000	26-Nov-2014 13:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-2
 Collection Date: 19-Nov-2014 13:30

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	26-Nov-2014 20:34
Ethylbenzene	U		0.50	5.0	ug/L	1	26-Nov-2014 20:34
Toluene	U		0.50	5.0	ug/L	1	26-Nov-2014 20:34
Xylenes, Total	U		1.5	15	ug/L	1	26-Nov-2014 20:34
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>106</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>26-Nov-2014 20:34</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.9</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>26-Nov-2014 20:34</i>
<i>Surr: Dibromofluoromethane</i>	<i>102</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>26-Nov-2014 20:34</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>26-Nov-2014 20:34</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	15,800		40.0	100	mg/L	200	26-Nov-2014 03:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Sample ID: MW-3
Collection Date: 19-Nov-2014 13:00

ANALYTICAL REPORT

WorkOrder:HS14110821
Lab ID:HS14110821-03
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 19:20
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 19:20
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 19:20
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 19:20
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>113</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 19:20</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>102</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 19:20</i>
<i>Surr: Dibromofluoromethane</i>	<i>107</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 19:20</i>
<i>Surr: Toluene-d8</i>	<i>104</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 19:20</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	741		20.0	50.0	mg/L	100	26-Nov-2014 04:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Sample ID: MW-4
Collection Date: 19-Nov-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14110821
Lab ID:HS14110821-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 20:09
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 20:09
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 20:09
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 20:09
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>105</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 20:09</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>104</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 20:09</i>
<i>Surr: Dibromofluoromethane</i>	<i>104</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 20:09</i>
<i>Surr: Toluene-d8</i>	<i>104</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 20:09</i>
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	964		20.0	50.0	mg/L	100	26-Nov-2014 04:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-5
 Collection Date: 19-Nov-2014 13:50

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 20:58
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 20:58
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 20:58
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 20:58
<i>Surr: 1,2-Dichloroethane-d4</i>	113			70-125	%REC	1	25-Nov-2014 20:58
<i>Surr: 4-Bromofluorobenzene</i>	102			72-125	%REC	1	25-Nov-2014 20:58
<i>Surr: Dibromofluoromethane</i>	103			71-125	%REC	1	25-Nov-2014 20:58
<i>Surr: Toluene-d8</i>	103			75-125	%REC	1	25-Nov-2014 20:58
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	673		20.0	50.0	mg/L	100	26-Nov-2014 05:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-6
 Collection Date: 19-Nov-2014 14:25

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 21:47
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 21:47
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 21:47
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 21:47
<i>Surr: 1,2-Dichloroethane-d4</i>	109			70-125	%REC	1	25-Nov-2014 21:47
<i>Surr: 4-Bromofluorobenzene</i>	103			72-125	%REC	1	25-Nov-2014 21:47
<i>Surr: Dibromofluoromethane</i>	102			71-125	%REC	1	25-Nov-2014 21:47
<i>Surr: Toluene-d8</i>	105			75-125	%REC	1	25-Nov-2014 21:47
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	133		2.00	5.00	mg/L	10	26-Nov-2014 05:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-7
 Collection Date: 19-Nov-2014 13:10

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	26-Nov-2014 02:17
Ethylbenzene	U		0.50	5.0	ug/L	1	26-Nov-2014 02:17
Toluene	U		0.50	5.0	ug/L	1	26-Nov-2014 02:17
Xylenes, Total	U		1.5	15	ug/L	1	26-Nov-2014 02:17
<i>Surr: 1,2-Dichloroethane-d4</i>	106			70-125	%REC	1	26-Nov-2014 02:17
<i>Surr: 4-Bromofluorobenzene</i>	101			72-125	%REC	1	26-Nov-2014 02:17
<i>Surr: Dibromofluoromethane</i>	104			71-125	%REC	1	26-Nov-2014 02:17
<i>Surr: Toluene-d8</i>	103			75-125	%REC	1	26-Nov-2014 02:17
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	153		2.00	5.00	mg/L	10	26-Nov-2014 05:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB
 Sample ID: MW-8
 Collection Date: 19-Nov-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14110821
 Lab ID:HS14110821-08
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.60	5.0	ug/L	1	26-Nov-2014 03:06
Ethylbenzene	U		0.50	5.0	ug/L	1	26-Nov-2014 03:06
Toluene	U		0.50	5.0	ug/L	1	26-Nov-2014 03:06
Xylenes, Total	U		1.5	15	ug/L	1	26-Nov-2014 03:06
<i>Surr: 1,2-Dichloroethane-d4</i>	108			70-125	%REC	1	26-Nov-2014 03:06
<i>Surr: 4-Bromofluorobenzene</i>	105			72-125	%REC	1	26-Nov-2014 03:06
<i>Surr: Dibromofluoromethane</i>	104			71-125	%REC	1	26-Nov-2014 03:06
<i>Surr: Toluene-d8</i>	105			75-125	%REC	1	26-Nov-2014 03:06
ANIONS BY E300.0		Method:E300				Analyst: JBA	
Chloride	264		4.00	10.0	mg/L	20	26-Nov-2014 08:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Sample ID: Trip Blank 111014-08
Collection Date: 19-Nov-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14110821
Lab ID:HS14110821-09
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: PC
Benzene	U		0.60	5.0	ug/L	1	25-Nov-2014 16:25
Ethylbenzene	U		0.50	5.0	ug/L	1	25-Nov-2014 16:25
Toluene	U		0.50	5.0	ug/L	1	25-Nov-2014 16:25
Xylenes, Total	U		1.5	15	ug/L	1	25-Nov-2014 16:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>104</i>			<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 16:25</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>98.3</i>			<i>72-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 16:25</i>
<i>Surr: Dibromofluoromethane</i>	<i>101</i>			<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 16:25</i>
<i>Surr: Toluene-d8</i>	<i>101</i>			<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>25-Nov-2014 16:25</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
WorkOrder: HS14110821

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R245718 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14110821-01	MW-1	19 Nov 2014 13:40			25 Nov 2014 13:35	1
HS14110821-03	MW-3	19 Nov 2014 13:00			25 Nov 2014 19:20	1
HS14110821-04	MW-4	19 Nov 2014 14:00			25 Nov 2014 20:09	1
HS14110821-05	MW-5	19 Nov 2014 13:50			25 Nov 2014 20:58	1
HS14110821-06	MW-6	19 Nov 2014 14:25			25 Nov 2014 21:47	1
Batch ID R245731 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14110821-07	MW-7	19 Nov 2014 13:10			26 Nov 2014 02:17	1
HS14110821-08	MW-8	19 Nov 2014 13:15			26 Nov 2014 03:06	1
Batch ID R245735 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14110821-09	Trip Blank 111014-08	19 Nov 2014 00:00			25 Nov 2014 16:25	1
Batch ID R245782 Test Name : ANIONS BY E300.0 Matrix: Water						
HS14110821-01	MW-1	19 Nov 2014 13:40			26 Nov 2014 13:15	2000
HS14110821-02	MW-2	19 Nov 2014 13:30			26 Nov 2014 03:58	200
HS14110821-03	MW-3	19 Nov 2014 13:00			26 Nov 2014 04:20	100
HS14110821-04	MW-4	19 Nov 2014 14:00			26 Nov 2014 04:42	100
HS14110821-05	MW-5	19 Nov 2014 13:50			26 Nov 2014 05:03	100
HS14110821-06	MW-6	19 Nov 2014 14:25			26 Nov 2014 05:25	10
HS14110821-07	MW-7	19 Nov 2014 13:10			26 Nov 2014 05:47	10
HS14110821-08	MW-8	19 Nov 2014 13:15			26 Nov 2014 08:33	20
Batch ID R245815 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14110821-02	MW-2	19 Nov 2014 13:30			26 Nov 2014 20:34	1

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245718		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-141125	Units: ug/L		Analysis Date: 25-Nov-2014 12:21					
Client ID:	Run ID: VOA1_245718	SeqNo: 3108674		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	54.14	5.0	50	0	108	70 - 125			
Surr: 4-Bromofluorobenzene	50.5	5.0	50	0	101	72 - 125			
Surr: Dibromofluoromethane	51.59	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	51.91	5.0	50	0	104	75 - 125			

LCS	Sample ID: VLCSW-141125	Units: ug/L		Analysis Date: 25-Nov-2014 11:33					
Client ID:	Run ID: VOA1_245718	SeqNo: 3108673		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	48.3	5.0	50	0	96.6	73 - 121			
Ethylbenzene	47.09	5.0	50	0	94.2	80 - 120			
Toluene	47.59	5.0	50	0	95.2	80 - 120			
Xylenes, Total	145.2	15	150	0	96.8	80 - 120			
Surr: 1,2-Dichloroethane-d4	51.66	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	51.95	5.0	50	0	104	72 - 125			
Surr: Dibromofluoromethane	53.13	5.0	50	0	106	71 - 125			
Surr: Toluene-d8	49.36	5.0	50	0	98.7	75 - 125			

MS	Sample ID: HS14110771-04MS	Units: ug/L		Analysis Date: 25-Nov-2014 14:00					
Client ID:	Run ID: VOA1_245718	SeqNo: 3108678		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.96	5.0	50	0	93.9	73 - 121			
Ethylbenzene	47.15	5.0	50	0	94.3	80 - 120			
Toluene	45.11	5.0	50	0	90.2	80 - 120			
Xylenes, Total	141.2	15	150	0	94.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	52.41	5.0	50	0	105	70 - 125			
Surr: 4-Bromofluorobenzene	52.72	5.0	50	0	105	72 - 125			
Surr: Dibromofluoromethane	53.99	5.0	50	0	108	71 - 125			
Surr: Toluene-d8	50.54	5.0	50	0	101	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245718		Instrument: VOA1		Method: SW8260						
MSD	Sample ID: HS14110771-04MSD	Units: ug/L			Analysis Date: 25-Nov-2014 14:25					
Client ID:	Run ID: VOA1_245718	SeqNo: 3108679		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Benzene	49	5.0	50	0	98.0	73 - 121	46.96	4.26	20	
Ethylbenzene	47.66	5.0	50	0	95.3	80 - 120	47.15	1.07	20	
Toluene	47.45	5.0	50	0	94.9	80 - 120	45.11	5.05	20	
Xylenes, Total	141.6	15	150	0	94.4	78 - 121	141.2	0.317	20	
Surr: 1,2-Dichloroethane-d4	52.62	5.0	50	0	105	70 - 125	52.41	0.403	20	
Surr: 4-Bromofluorobenzene	52.25	5.0	50	0	104	72 - 125	52.72	0.898	20	
Surr: Dibromofluoromethane	54.27	5.0	50	0	109	71 - 125	53.99	0.524	20	
Surr: Toluene-d8	49.86	5.0	50	0	99.7	75 - 125	50.54	1.36	20	
The following samples were analyzed in this batch:										
HS14110821-01		HS14110821-02		HS14110821-03		HS14110821-04				
HS14110821-05		HS14110821-06								

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245731		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-141125	Units: ug/L		Analysis Date: 26-Nov-2014 00:15					
Client ID:	Run ID: VOA1_245731	SeqNo: 3108859		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	52.69	5.0	50	0	105	70 - 125			
Surr: 4-Bromofluorobenzene	49.17	5.0	50	0	98.3	72 - 125			
Surr: Dibromofluoromethane	52.15	5.0	50	0	104	71 - 125			
Surr: Toluene-d8	50.69	5.0	50	0	101	75 - 125			

LCS	Sample ID: VLCSW-141125	Units: ug/L		Analysis Date: 25-Nov-2014 23:26					
Client ID:	Run ID: VOA1_245731	SeqNo: 3108858		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	50.49	5.0	50	0	101	73 - 121			
Ethylbenzene	49.67	5.0	50	0	99.3	80 - 120			
Toluene	48.13	5.0	50	0	96.3	80 - 120			
Xylenes, Total	150.3	15	150	0	100	80 - 120			
Surr: 1,2-Dichloroethane-d4	53.57	5.0	50	0	107	70 - 125			
Surr: 4-Bromofluorobenzene	51.89	5.0	50	0	104	72 - 125			
Surr: Dibromofluoromethane	55.36	5.0	50	0	111	71 - 125			
Surr: Toluene-d8	51.86	5.0	50	0	104	75 - 125			

MS	Sample ID: HS14110754-07MS	Units: ug/L		Analysis Date: 26-Nov-2014 01:03					
Client ID:	Run ID: VOA1_245731	SeqNo: 3108861		PrepDate:		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	240.6	25	250	0	96.2	73 - 121			
Ethylbenzene	229.8	25	250	0	91.9	80 - 120			
Toluene	230.7	25	250	0	92.3	80 - 120			
Xylenes, Total	676.9	75	750	0	90.2	80 - 120			
Surr: 1,2-Dichloroethane-d4	272.3	25	250	0	109	70 - 125			
Surr: 4-Bromofluorobenzene	255.3	25	250	0	102	72 - 125			
Surr: Dibromofluoromethane	283.3	25	250	0	113	71 - 125			
Surr: Toluene-d8	247.2	25	250	0	98.9	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245731		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS14110754-07MSD		Units: ug/L		Analysis Date: 26-Nov-2014 01:28				
Client ID:		Run ID: VOA1_245731		SeqNo: 3108862		PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	239.4	25	250	0	95.8	73 - 121	240.6	0.477	20	
Ethylbenzene	233.1	25	250	0	93.2	80 - 120	229.8	1.44	20	
Toluene	225.5	25	250	0	90.2	80 - 120	230.7	2.3	20	
Xylenes, Total	686.9	75	750	0	91.6	78 - 121	676.9	1.47	20	
Surr: 1,2-Dichloroethane-d4	269.8	25	250	0	108	70 - 125	272.3	0.919	20	
Surr: 4-Bromofluorobenzene	255.4	25	250	0	102	72 - 125	255.3	0.0302	20	
Surr: Dibromofluoromethane	282.3	25	250	0	113	71 - 125	283.3	0.359	20	
Surr: Toluene-d8	254.4	25	250	0	102	75 - 125	247.2	2.85	20	
The following samples were analyzed in this batch:										
			HS14110821-07 HS14110821-08							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245735		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-14125	Units: ug/L		Analysis Date: 25-Nov-2014 11:17					
Client ID:	Run ID: VOA6_245735	SeqNo: 3108996		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	51.73	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	49.51	5.0	50	0	99.0	72 - 125			
Surr: Dibromofluoromethane	50.14	5.0	50	0	100	71 - 125			
Surr: Toluene-d8	50.33	5.0	50	0	101	75 - 125			

LCS	Sample ID: VLCSW-141125	Units: ug/L		Analysis Date: 25-Nov-2014 10:05					
Client ID:	Run ID: VOA6_245735	SeqNo: 3108995		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	45.07	5.0	50	0	90.1	73 - 121			
Ethylbenzene	45.7	5.0	50	0	91.4	80 - 120			
Toluene	44.76	5.0	50	0	89.5	80 - 120			
Xylenes, Total	136.5	15	150	0	91.0	80 - 120			
Surr: 1,2-Dichloroethane-d4	51.31	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	50.58	5.0	50	0	101	72 - 125			
Surr: Dibromofluoromethane	50.67	5.0	50	0	101	71 - 125			
Surr: Toluene-d8	48.8	5.0	50	0	97.6	75 - 125			

MS	Sample ID: HS14110820-01MS	Units: ug/L		Analysis Date: 25-Nov-2014 14:49					
Client ID:	Run ID: VOA6_245735	SeqNo: 3109004		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.02	5.0	50	0	84.0	73 - 121			
Ethylbenzene	39.14	5.0	50	0	78.3	80 - 120			S
Toluene	40.81	5.0	50	0	81.6	80 - 120			
Xylenes, Total	118.9	15	150	0	79.3	80 - 120			S
Surr: 1,2-Dichloroethane-d4	53.36	5.0	50	0	107	70 - 125			
Surr: 4-Bromofluorobenzene	51.22	5.0	50	0	102	72 - 125			
Surr: Dibromofluoromethane	51.38	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	49.88	5.0	50	0	99.8	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245735		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14110820-01MSD		Units: ug/L		Analysis Date: 25-Nov-2014 15:13				
Client ID:		Run ID: VOA6_245735		SeqNo: 3109005		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.35	5.0	50	0	82.7	73 - 121	42.02	1.62	20	
Ethylbenzene	40.54	5.0	50	0	81.1	80 - 120	39.14	3.53	20	
Toluene	41.82	5.0	50	0	83.6	80 - 120	40.81	2.44	20	
Xylenes, Total	123.2	15	150	0	82.2	78 - 121	118.9	3.59	20	
Surr: 1,2-Dichloroethane-d4	52.82	5.0	50	0	106	70 - 125	53.36	1.02	20	
Surr: 4-Bromofluorobenzene	51.06	5.0	50	0	102	72 - 125	51.22	0.313	20	
Surr: Dibromofluoromethane	51.23	5.0	50	0	102	71 - 125	51.38	0.294	20	
Surr: Toluene-d8	49.9	5.0	50	0	99.8	75 - 125	49.88	0.0454	20	

The following samples were analyzed in this batch: HS14110821-09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245815		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-14126	Units: ug/L		Analysis Date: 26-Nov-2014 11:43					
Client ID:	Run ID: VOA6_245815	SeqNo: 3110396		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	51.14	5.0	50	0	102	70 - 125			
Surr: 4-Bromofluorobenzene	48.95	5.0	50	0	97.9	72 - 125			
Surr: Dibromofluoromethane	49.89	5.0	50	0	99.8	71 - 125			
Surr: Toluene-d8	50.71	5.0	50	0	101	75 - 125			

LCS	Sample ID: VLCSW-141126	Units: ug/L		Analysis Date: 26-Nov-2014 10:30					
Client ID:	Run ID: VOA6_245815	SeqNo: 3110395		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	43.96	5.0	50	0	87.9	73 - 121			
Ethylbenzene	45.12	5.0	50	0	90.2	80 - 120			
Toluene	44.13	5.0	50	0	88.3	80 - 120			
Xylenes, Total	135.4	15	150	0	90.3	80 - 120			
Surr: 1,2-Dichloroethane-d4	51.47	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	51.2	5.0	50	0	102	72 - 125			
Surr: Dibromofluoromethane	51.38	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	48.79	5.0	50	0	97.6	75 - 125			

MS	Sample ID: HS14110908-02MS	Units: ug/L		Analysis Date: 26-Nov-2014 15:20					
Client ID:	Run ID: VOA6_245815	SeqNo: 3110399		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	42.34	5.0	50	0	84.7	73 - 121			
Ethylbenzene	41.69	5.0	50	0	83.4	80 - 120			
Toluene	42.21	5.0	50	0	84.4	80 - 120			
Xylenes, Total	125.6	15	150	0	83.7	80 - 120			
Surr: 1,2-Dichloroethane-d4	53.01	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	52.13	5.0	50	0	104	72 - 125			
Surr: Dibromofluoromethane	51.36	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	50.19	5.0	50	0	100	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245815		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14110908-02MSD		Units: ug/L		Analysis Date: 26-Nov-2014 15:45				
Client ID:		Run ID: VOA6_245815		SeqNo: 3110400		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	44.18	5.0	50	0	88.4	73 - 121	42.34	4.25	20	
Ethylbenzene	45.52	5.0	50	0	91.0	80 - 120	41.69	8.78	20	
Toluene	44.53	5.0	50	0	89.1	80 - 120	42.21	5.35	20	
Xylenes, Total	135	15	150	0	90.0	78 - 121	125.6	7.19	20	
Surr: 1,2-Dichloroethane-d4	51.8	5.0	50	0	104	70 - 125	53.01	2.31	20	
Surr: 4-Bromofluorobenzene	51.82	5.0	50	0	104	72 - 125	52.13	0.597	20	
Surr: Dibromofluoromethane	50.52	5.0	50	0	101	71 - 125	51.36	1.65	20	
Surr: Toluene-d8	49.77	5.0	50	0	99.5	75 - 125	50.19	0.837	20	

The following samples were analyzed in this batch: HS14110821-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
 WorkOrder: HS14110821
 Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245782		Instrument: ICS3K2		Method: E300						
MBLK	Sample ID: WBLKW3-112514	Units: mg/L		Analysis Date: 25-Nov-2014 23:38						
Client ID:	Run ID: ICS3K2_245782	SeqNo: 3109952		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCSW3-112514	Units: mg/L		Analysis Date: 26-Nov-2014 00:00						
Client ID:	Run ID: ICS3K2_245782	SeqNo: 3109953		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.07	0.500	20	0	95.4	90 - 110				
LCSD	Sample ID: WLCSDW3-112514	Units: mg/L		Analysis Date: 26-Nov-2014 00:21						
Client ID:	Run ID: ICS3K2_245782	SeqNo: 3109954		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.08	0.500	20	0	95.4	90 - 110	19.07	0.0157	20	
MS	Sample ID: HS14110821-08MS	Units: mg/L		Analysis Date: 26-Nov-2014 08:54						
Client ID: MW-8	Run ID: ICS3K2_245782	SeqNo: 3109977		PrepDate:		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	467.7	10.0	200	264.4	102	80 - 120				
MS	Sample ID: HS14110818-06MS	Units: mg/L		Analysis Date: 26-Nov-2014 01:05						
Client ID:	Run ID: ICS3K2_245782	SeqNo: 3109956		PrepDate:		DF: 200				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20170	100	2000	18260	95.5	80 - 120				EO
MSD	Sample ID: HS14110821-08MSD	Units: mg/L		Analysis Date: 26-Nov-2014 09:16						
Client ID: MW-8	Run ID: ICS3K2_245782	SeqNo: 3109978		PrepDate:		DF: 20				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	468.6	10.0	200	264.4	102	80 - 120	467.7	0.182	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
WorkOrder: HS14110821
Project: 55269DM GSHI PXP UT Hobbs R10 ATB

QC BATCH REPORT

Batch ID: R245782		Instrument: ICS3K2		Method: E300						
MSD		Sample ID: HS14110818-06MSD		Units: mg/L		Analysis Date: 26-Nov-2014 01:26				
Client ID:		Run ID: ICS3K2_245782		SeqNo: 3109957		PrepDate:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20230	100	2000	18260	98.1	80 - 120	20170	0.258	20	EO
The following samples were analyzed in this batch:										
			HS14110821-01	HS14110821-02	HS14110821-03	HS14110821-04				
			HS14110821-05	HS14110821-06	HS14110821-07	HS14110821-08				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
WorkOrder: HS14110821

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

Client: Glenn Springs Holdings
Project: 55269DM GSHI PXP UT Hobbs R10 ATB
Work Order: HS14110821

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14110821-01	MW-1	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-01	MW-1	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-02	MW-2	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-02	MW-2	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-03	MW-3	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-03	MW-3	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-04	MW-4	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-04	MW-4	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-05	MW-5	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-05	MW-5	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-06	MW-6	Login	11/22/2014 1:41:52 PM	SLS	20C
HS14110821-06	MW-6	Login	11/22/2014 1:41:52 PM	SLS	VW-3
HS14110821-07	MW-7	Login	11/22/2014 1:45:42 PM	SLS	VW-3
HS14110821-08	MW-8	Login	11/22/2014 2:22:57 PM	SLS	20C
HS14110821-08	MW-8	Login	11/22/2014 2:22:57 PM	SLS	VW-3
HS14110821-09	Trip Blank 111014-08	Login	11/22/2014 2:24:12 PM	SLS	VW-3

Sample Receipt Checklist

Client Name: GLEN SPRINGS/CRA

Date/Time Received: **22-Nov-2014 09:40**

Work Order: HS14110821

Received by: **SLS**Checklist completed by: Stephen L. Smith 22-Nov-2014
eSignature DateReviewed by: Dane J. Wacasey 25-Nov-2014
eSignature DateMatrices: **water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping 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 ☐	

Temperature(s)/Thermometer(s):	2.6/2.6, 4.8/4.8 c/u	2
Cooler(s)/Kit(s):	23738,33793	
Date/Time sample(s) sent to storage:	11/22/2014 1400	
Water - VOA vials have zero headspace?	Yes ☒	No ☐ No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐ N/A ☒
pH adjusted?	Yes ☐	No ☐ N/A ☒
pH adjusted by:		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page _____ of _____

HS14110821

Glenn Springs Holdings
GSHI PXP UT Hobbs R#10 ATB



COC ID: 112727

Customer Information

Purchase Order 4501709538

Work Order

Company Name Glenn Springs Holdings

Send Report To Angela Bown

C/O CRA

Address 9033 Meridian Way

City/State/Zip West Chester, Ohio 45069

Phone (513) 942-4750

Fax

e-Mail Address

Project Information

Project Name GSHI PXP UT Hobbs R#10 ATB

Project Number 55629DM (ENV749A002)

Bill To Company Glenn Springs Holdings

Invoice Attn Jennifer Devonshire

C/O CRA

Address 2055 Niagara Falls Blvd. Suite 3

City/State/Zip Niagara Falls, NY 14304

Phone

Fax

e-Mail Address

ALS Project Manager:

A BTEX (8260)

B Chloride by 300

C

D

E

F

G

H

I

J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	11/19/14	1340	Water		4	X	X									
2	MW-2		1330	Water		4	X	X									
3	MW-3		1300	Water		4	X	X									
4	MW-4		1400	Water		4	X	X									
5	MW-5		1350	Water		4	X	X									
6	MW-6		1425	Water		4	X	X									
7	MW-7		1310	Water		4	X	X									
8	MW-8		1315	Water		4	X	X									
9	Trip Blank			Water		2	X										
0																	

ampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by: Ryan Reich

Date: 11/22/14

Time: 1900

Received by:

Notes:

10 Day TAT

Results Due Date:

Relinquished by:

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Agged by (Laboratory):

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

reservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Other EDO

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 2 Std QC

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 3 Std QC/Row da

Date: 11/22-14

Time: 0940

Received by (Laboratory):

Notes:

10 Day TAT

Results Due Date:

Level 4 SW/86/CLP



ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

Date:
Name:
Company:

CUSTODY SEAL

Date: 11/21/14 Time: 09:00
Name: Ryan Reia
Company: RPS

Seal Broken By:

Date: 11-22-14



ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 11/21/14 Time: 09:00
Name: Ryan Reia
Company: RPS

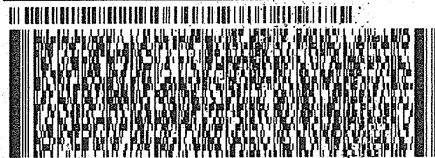
Seal Broken By:

Date:

1 of 2
TRK# 8035 6168 7255
0215
MASTER

XO SGRA

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
77099
TX-US IAH



FedEx
Express



2 of 2
MPS# 7801 5462 3577
0681
Mstr# 8035 6168 7255 0215

XO SGRA

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
77099
TX-US IAH

