APPROVED

April 15, 2015

Ms. Pamela Green
Kansas Department of Health and Environment
Bureau of Environmental Remediation
1000 SW Jackson Street, Suite 410
Topeka, Kansas 66612

Re: First Quarter 2015 Groundwater Monitoring Report
NuStar Andover Quail Crossing
Andover, Kansas
1641-06

Dear Ms. Green:

Enclosed, please find the First Quarter 2015 Groundwater Monitoring Report (Report). This Report was prepared by Apex Companies, LLC (Apex) on behalf of NuStar Pipeline Operating Partnership L.P. (NuStar) as part of the continuing response to a gasoline release from a NuStar refined-petroleum pipeline in the Andover Quail Crossing Neighborhood.

If you have any questions or would like to discuss this further, please contact me at (503) 924-4704 ext. 1924.

Sincerely,

Sam Jackson
Associate Engineer

ATTACHMENT

First Quarter 2015 Groundwater Monitoring Report

cc: Ms. Renee Robinson, NuStar Energy, L.P. (electronic deliverable)

First Quarter 2015
Groundwater Monitoring Report
NuStar Andover Quail Crossing
Andover, Kansas

Prepared for:
NuStar Pipeline Operating Partnership L.P.

April 15, 2015
1641-06

APEX

First Quarter 2015 Groundwater Monitoring Report NuStar Andover Quail Crossing Andover, Kansas

Prepared for:
NuStar Pipeline Operating Partnership L.P.

April 15, 2015
1641-06

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GROUNDWATER MONITORING REPORT

First Quarter 2015

NuStar Pipeline Operating Partnership L.P.

Quail Crossing Neighborhood

Andover, Kansas

Site Name and Location:	Quail Crossing Neighborhood Site	
	West Mountain and North Colt Court	
	Andover, Kansas	
Owner (Contact):	NuStar Pipeline Operating Partnership L.P.	
	19003 IH-10 West	
	San Antonio, Texas 78257	
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	Sam Jackson	(503) 924-4704 x1924
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	1000 SW Jackson Street, Suite 410	
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	Pamela Green	(785) 296-1935

1.0 Introduction and Site Background

This groundwater monitoring report was prepared by Apex Companies, LLC (Apex) on behalf of NuStar Pipeline Operating Partnership L.P. (NuStar) as part of the continuing response to a gasoline release from a NuStar refined-petroleum pipeline. The activities outlined herein were performed in accordance with the Consent Agreement and Final Order (CAFO) dated May 10, 2013 and in coordination with the Kansas Department of Health and Environment (KDHE) and the Quail Crossing Neighborhood Association. This report summarizes the activities conducted from January 1 through March 31, 2015.

1.1 Background

The pipeline release was discovered in June 2012 after separate-phase hydrocarbons (SPH) were detected in an irrigation well at 2006 N Colt Court, in the Quail Crossing Neighborhood (the Neighborhood) of Andover, Kansas (the Site; Figure 1). The NuStar pipeline release location was approximately 80 feet north

of the affected irrigation well. Upon notification of the discovery of SPH in the irrigation well, NuStar immediately mobilized to the Site and implemented several initial response and abatement activities, including repairs to the pipeline, deactivation of the irrigation well at 2006 N Colt Court, and removal of SPH from the well. Following the initial response activities, NuStar: (1) performed a number of interim remedial measures (IRMs); and (2) planned and implemented a Comprehensive Investigation (CI). The initial response, IRMs, and CI activities are described in detail in the *Comprehensive Investigation Report* (Apex, 2014b) submitted in April 2014 and approved by KDHE on May 7, 2014.

Information obtained during the CI indicates that residual gasoline constituents are present in soil in a limited area in the vicinity of the pipeline release location. To evaluate the feasibility of soil vapor extraction (SVE) technology for remediating petroleum hydrocarbons in the subsurface, NuStar performed an SVE pilot test during the week of December 9, 2013. The pilot test was performed in accordance with the KDHE-approved *Soil Vapor Extraction Pilot Test Work Plan* (Apex, 2013). An evaluation of the SVE pilot test results indicated that SVE may be an effective remedial technology for the Site. Accordingly, NuStar: (1) presented the results of the pilot test and a conceptual SVE system design at a Neighborhood meeting on February 17, 2014; and (2) submitted the *Soil Vapor Extraction Evaluation and Soil Investigation Report* in March 2014 (Apex, 2014a). NuStar modified the conceptual design of the SVE system based on Neighborhood feedback; however, despite proposed modifications to the conceptual SVE design, Neighborhood representatives cited a number of reasons for not accepting an SVE system, including concerns about noise, emissions, and aesthetics.

To refine the understanding of the extent of gasoline in soil and to evaluate the potential for implementing other remedial alternatives that may be acceptable to the Neighborhood, in April 2014, NuStar implemented a soil investigation in the vicinity of the pipeline release. Analytical data from the April 2014 soil investigation were presented in the *Soil Investigation Report and Proposed Soil Excavation Work Plan* (Apex, 2014c); this report was approved by KDHE on August 8, 2014. NuStar is currently preparing a detailed soil excavation work plan. The City of Andover has required preparation of detailed survey documents and engineering designs as a condition of permitting the planned excavation. These documents were provided to the City of Andover in February 2015; to date, the City of Andover has not provided comments. The municipal requirements and review time have resulted in delayed submittal of the plan. We anticipate submittal of the detailed excavation work plan during the second half of 2015.

In August 2013, a quarterly groundwater monitoring program and weekly SPH removal and gauging events were initiated; this schedule was maintained through February 9, 2015. The current KDHE-approved groundwater monitoring program consists of: (1) monthly gauging of water levels in monitoring wells MW-1 through MW-16; (2) quarterly collection and analysis of groundwater samples from monitoring wells MW-1 through MW-16; and (3) quarterly collection and analysis of groundwater monitoring samples from selected irrigation wells. The groundwater monitoring programs for monitoring wells and irrigation wells are presented in Tables 1 and 2, respectively. For the SPH removal program, a vacuum truck was used to extract

groundwater and SPH, if present, from the irrigation well at 2006 N Colt Court during the period August 2013 through January 7, 2015. A modified SPH removal program was approved by KDHE on January 9, 2015 and implemented starting on January 14, 2015. The modified SPH program is described in Section 2.2.1.

Since the release was discovered, NuStar has coordinated with property owners within the investigation area to deactivate irrigation wells (nine as of the date of this report), reconfigure the associated irrigation systems to receive municipal water, and reimburse affected property owners for municipal water fees. Irrigation wells were selected for deactivation based on their location within the investigation area, groundwater quality, the potential that pumping on the wells could influence groundwater conditions, and/or well owner concerns. Irrigation wells that have been deactivated are listed in Table 2 and locations are shown on Figure 2. It is noted that the irrigation wells have not been permanently decommissioned; therefore, the well owners will have the option of reactivating the wells when the investigation and remediation in the Neighborhood is complete. In addition, it is noted that eight Neighborhood irrigation wells were not deactivated because the homeowners wished to maintain use of the well (2025 N Ruger Court, 2007 N Mountain Court, and 2009 N Mountain Court) or the wells are located outside the investigation area (1009 W Mountain, 1211 W Quail Crossing Court, 1910 W Quail Crossing Court, HOA-1, and HOA-2).

In order to evaluate a groundwater remedial technology that may be appropriate for treating groundwater at the Site, the *Groundwater Pilot Test Work Plan* was developed and submitted in January 2015 (Apex, 2015a). After evaluating several groundwater technologies, the Work Plan proposed a pilot test to evaluate enhanced aerobic bioremediation using oxygen release compounds via injection to the subsurface. KDHE approved the Work Plan on January 26, 2015 and the pilot test was implemented from March 10 through 20, 2015. Consistent with the Work Plan, the results will be presented in the forthcoming groundwater pilot test report and are not presented herein.

1.2 Site Description

The Site is located in the northern portion of the City of Andover, in southwest Butler County, Kansas (Figure 1). Land use at the Site and surrounding areas is residential. As shown on Figure 2, a stormwater retention pond is located near the Site, approximately 250 feet south of the NuStar pipeline. The pipeline is constructed of 8-inch-diameter carbon steel and is used to transport liquefied petroleum products. The pipeline was installed to an approximate depth of 3 feet below ground surface (bgs) in agricultural land in 1959. The pipeline remained in agricultural and/or undeveloped land until the late 1990s when development of the Quail Crossing Neighborhood began. As part of the Neighborhood development, the pipeline depth was increased to approximately 6 feet bgs by re-excavating and backfilling with native material. An approximately 50-foot-wide pipeline right of way (ROW) was created along the pipeline pathway for safety purposes during Neighborhood development. The ROW limits development activities near the pipeline. The pipeline location and associated ROW are shown on Figure 2.

2.0 First Quarter 2015 Groundwater Monitoring and SPH Removal

This section describes the following first quarter 2015 comprehensive monitoring and SPH removal activities: (1) groundwater gauging and measurement of stormwater pond stage; (2) SPH gauging and removal of SPH from the irrigation well at 2006 N Colt Court; and (3) comprehensive groundwater monitoring and sampling of 16 monitoring wells and selected irrigation wells. The groundwater monitoring programs for monitoring wells and irrigation wells (i.e., schedule and chemical analyses) are shown in Tables 1 and 2, respectively.

2.1 Groundwater and Stormwater Pond Elevations

Depth to water was measured at each monitoring well location and at the irrigation well at 2006 N Colt Court on a weekly schedule through February 9, 2015. Subsequently, with KDHE approval, NuStar reduced the gauging frequency to monthly. On March 18, the final gauging event for the quarter was performed.

Gauging was performed to the nearest 0.01 foot using an electronic water interface probe. The stormwater pond stage was measured using a staff gauge permanently installed in the pond. Groundwater elevation and stormwater pond surface elevation data measured during the period January through March 2015 are listed in Table 3. The groundwater elevations that were measured during the first quarter 2015 monitoring event (February 9) are shown on Figure 3. Copies of field data sheets are included in Appendix A. Historical groundwater and stormwater retention pond elevations for the period August 2013 through March 2015 are tabulated in Appendix B.

During the first quarter 2015 monitoring event, groundwater levels at the Site ranged between approximately 17 and 41 feet bgs (equivalent to 1,309 and 1,332 feet above mean sea level [MSL]). Groundwater levels during the first quarter 2015 monitoring event increased an average of 0.06 feet relative to the fourth quarter groundwater monitoring event in October 2014. Groundwater levels were generally consistent with those observed since groundwater monitoring began in July 2013.

The elevation of the stormwater pond surface ranged from 1343.50 to 1344.25 feet MSL between January and March 2015. During the first quarter 2015 monitoring event (February 9), the surface elevation of the stormwater retention pond was 1344.0 feet MSL. The stormwater pond surface elevation was unchanged compared to the fourth quarter 2014 monitoring event (October 2014).

As shown on Figure 3, the groundwater levels measured during the first quarter 2015 event exhibited a pattern similar to previous monitoring events at the Site. That is, groundwater levels were highest in the vicinity of the stormwater retention pond and decreased with distance from the pond. The observed pattern of elevated groundwater levels near the pond is likely the result of localized groundwater recharge from the stormwater retention pond. The localized recharge results in radial flow of groundwater away from the pond.

However, with some distance from the pond, groundwater exhibits a more easterly flow component and flatter gradient, consistent with regional patterns (O'Connor et al., 1982).

2.1.1 Proposed Modifications to the Groundwater Gauging Program

To obtain additional information regarding groundwater elevations at the Site, NuStar will survey the top of casing elevations at irrigation wells at the properties addressed as: 2005 N Colt Court; 2006 N Colt Court; 2007 N Colt Court; 2019 N Ruger Circle; 2020 N Ruger Circle; and 2002 N Colt. These wells will be gauged during quarterly groundwater monitoring events. The survey data will provide the means for calculating groundwater elevations in the irrigation wells.

2.2 SPH Occurrence

On a weekly schedule through February 9, 2015, the monitoring wells and irrigation well at 2006 N Colt Court were gauged for the presence of SPH and to measure depth to water. Consistent with KDHE approval, NuStar reduced the gauging frequency to monthly. On March 18, the final gauging event for the first quarter 2015 was performed.

SPH have not been observed in any monitoring wells at the Site, including well MW-1, which is located 30 feet from the irrigation well. With the exception of the irrigation well at 2006 N Colt Court, SPH have not been observed in irrigation wells at the Site. Additionally, SPH were not encountered during installation of 13 soil borings in the vicinity of the release (Apex, 2014). Based on data collected from monitoring wells, irrigation wells, and temporary borings, SPH are limited to the vicinity of the irrigation well at 2006 N Colt Court.

During the first quarter 2015, SPH thicknesses ranged from no SPH present to 0.09 foot in the irrigation well at 2006 N Colt Court. Groundwater elevation data, SPH thicknesses, and the estimated volume of SPH removed from the irrigation well at 2006 N Colt Court for the fourth quarter 2014 are listed in Table 4. Historical data are included in Appendix B.

2.2.1 SPH Removal Program

NuStar submitted the *Proposed SPH Removal Modification Plan* to the KDHE on January 6, 2015. The *Proposed SPH Removal Modification Plan* included a proposal for installation of an SPH skimmer in the irrigation well at 2006 N Colt Court, specifications for the skimmer, and a proposed operations and maintenance (O&M) schedule. On January 9, 2015, KDHE approved the *Proposed SPH Removal Modification Plan*. Accordingly, NuStar performed the following events during the first quarter 2015: (1) vacuum extraction events at the irrigation well at 2006 N Colt Court on January 7 and February 9; (2) weekly gauging during the period January 7 through February 9; (3) installation of an SPH skimmer in the

irrigation well at 2006 N Colt Court on February 9, 2015; and (4) gauging and SPH skimmer operations and maintenance [O&M] on March 18.

During the vacuum extraction events, the following work was performed:

- The irrigation well was gauged and the thickness of SPH, if present, was measured using an electronic water interface probe. Gauging occurred at the start and completion of each removal event.
- A vacuum truck, capable of generating vacuum equivalent to 100 inches of water, was used to extract groundwater and SPH, if present, from the well and to induce a vacuum in the surrounding formation. Vacuum was induced for approximately two hours, through flexible hosing that was secured to the well head. Extracted SPH, if present, and water were contained in a tank located on the truck. Extracted vapor was discharged through a temporary stack (comprised of a vertically installed 15-foot-length 4-inch-diameter polyvinyl chloride [PVC] pipe).
- Extracted water and SPH were treated and disposed of at the Custom Wastewater Facility in Wichita, Kansas.

On February 9, 2015, an SPH skimmer was installed in the irrigation well at 2006 N Colt Court. Skimmer specifications are included in Appendix C. The first SPH skimmer O&M event occurred on March 18, 2015; SPH were absent from the irrigation well. During that event, the SPH skimmer was temporarily removed and the accumulated SPH were transferred into an on-site accumulation drum. Approximately 0.25 gallon of SPH were collected in the skimmer during the period February 9 through March 18. The SPH skimmer was subsequently adjusted and reinstalled in the irrigation well. NuStar will continue to perform monthly gauging and SPH skimmer O&M events to evaluate the effectiveness of the SPH skimmer in the irrigation well.

2.3 First Quarter 2015 Groundwater Monitoring Event Scope

The first quarter 2015 groundwater monitoring event was conducted during the week of February 9, 2015 and included the monitoring activities presented below.

- Monitoring wells MW-1 through MW-16 were gauged.
- Groundwater samples were collected from monitoring wells MW-1 through MW-16.
- Groundwater samples were collected from irrigation wells at 16 properties (2002 N Colt Court; 2005 N Colt Court; 2007 N Colt Court; HOA-1; HOA-2; 2019 N Ruger Circle; 2020 N Ruger Circle; 2028 N Ruger Circle; 2032 N Ruger Circle; 2021 N Ruger Court; 2025 N Ruger Court; 1009 W Mountain; 2007 N Mountain Court; 2009 N Mountain Court; 1211 W Quail Crossing Court; and 1910 N Quail Crossing).

Apex was not able to contact the property owners at 2001 N Colt Court; therefore, a groundwater sample was not collected from the irrigation well at that property.

Groundwater samples were collected from monitoring wells using low-flow sampling techniques. Prior to sampling, each monitoring well was purged using a peristaltic pump while water quality parameters (pH, temperature, specific conductance, dissolved oxygen, and oxidation-reduction potential [ORP]) were recorded (Table 5). Groundwater samples were collected from irrigation wells using disposable bailers. The groundwater analytical data for monitoring wells are presented in Section 2.4. Analytical data for irrigation wells are presented in Section 2.5.

Samples from selected groundwater monitoring wells were additionally analyzed for parameters useful for assessing natural attenuation processes. Consistent with the *Revised Groundwater Pilot Test Work Plan* (Apex, 2015a), the analytical results for natural attenuation parameters will be presented in the forthcoming Groundwater Pilot Test Report, and are not presented herein.

2.4 Monitoring Well Analytical Program and Results

Monitoring well groundwater samples were submitted to ALS Environmental (ALS), a Kansas-accredited analytical laboratory, for the following analyses: gasoline-range organics (GRO) by Method IOWA OA-1 and volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method SW846 8260B. Tables 6 and 7 present dissolved-phase petroleum constituent data for samples collected between August 2013 and February 2015. Figures 4 through 7 present analytical data for the first quarter 2015 monitoring event. Copies of the laboratory reports are included in Appendix D. The monitoring well groundwater data are discussed below.

In general, the dissolved-phase hydrocarbon concentrations in samples collected from wells within 150 feet of the release location (MW-1, MW-2, MW-3, MW-4, and MW-5) have been stable or decreased since the summer of 2013. Since monitoring began in summer 2013, the maximum benzene concentration detected in samples collected from those monitoring wells was 9.0 milligrams per liter (mg/L). During the February 2015 monitoring event, the maximum benzene concentration in those wells was 1.4 mg/L.

In October 2014, the samples collected from wells MW-11, MW-12, and MW-14 contained low concentrations of dissolved-phase petroleum constituents (GRO, benzene, naphthalene), which exceeded KDHE Tier 2 Risk-Based Screening Values (RBSVs). In February 2014, no constituents in wells MW-12 and MW-14 exceeded KDHE Tier 2 RBSVs, and in well MW-11, only naphthalene exceeded the corresponding Tier 2 RBSV.

2.5 Irrigation Well Analytical Program and Results

Groundwater samples were collected from the irrigation wells at 16 properties (2002 N Colt Court; 2005 N Colt Court; 2007 N Colt Court; HOA-1; HOA-2; 2019 N Ruger Circle; 2020 N Ruger Circle; 2028 N Ruger Circle; 2032 N Ruger Circle; 2021 N Ruger Court; 2025 N Ruger Court; 1009 W Mountain; 2007 N Mountain Court; 2009 N Mountain Court; 1211 W Quail Crossing Court; and 1910 N Quail Crossing).

Apex staff were not able to collect a water sample from the irrigation well at 2001 N Colt Court because the property owner did not provide access. NuStar will continue attempts to contact this property owner to obtain permission to collect water samples during future sampling events.

Irrigation well analytical data for the first quarter 2015 monitoring event are listed in Table 7 and shown on Figures 4 through 7. Copies of the laboratory reports are included in Appendix D. The irrigation well groundwater data are further discussed below:

- During the first quarter 2015 groundwater monitoring event, dissolved-phase hydrocarbon constituents were not detected or were detected at concentrations less than KDHE Tier 2 RBSVs in 13 irrigation wells (2002 N Colt Court; HOA-1; HOA-2; 2020 N Ruger Circle; 2028 N Ruger Circle; 2032 N Ruger Circle; 2021 N Ruger Court; 2025 N Ruger Court; 1009 W Mountain; 2007 N Mountain Court; 2009 N Mountain Court; 1211 W Quail Crossing Court; and 1910 N Quail Crossing).
- The water samples collected from three irrigation wells (2007 N Colt Court, 2005 N Colt Court, 2019 N Ruger Circle) contained concentrations of dissolved-phase petroleum constituents that exceed the corresponding KDHE Tier 2 RBSVs.
    - The concentrations of GRO, benzene, 1,2,4-trimethylbenzene, and naphthalene in the irrigation well at 2005 N Colt Court exceeded the corresponding KDHE Tier 2 RBSVs. The February 2015 benzene concentration in the irrigation well at 2005 N Colt Court (0.059 mg/L) was significantly lower compared to the concentrations detected in that well in October 2014 (0.23 mg/L) and July 2013 (0.47 mg/L). As shown in Table 1, this irrigation well has been deactivated, and the irrigation system was reconfigured to receive municipal water.
    - The concentrations of benzene, 1,2,4-trimethylbenzene, and naphthalene in the irrigation well at 2007 N Colt Court exceeded the corresponding KDHE Tier 2 RBSVs. The February 2015 benzene concentration in the irrigation well at 2007 N Colt Court (0.052 mg/L) is slightly higher than the concentration detected during the previous monitoring event; however, the February 2015 concentration was significantly lower than the concentration detected in that well in July 2013 (0.14 mg/L). As shown in Table 1, this irrigation well has been deactivated and the irrigation system was reconfigured to receive municipal water.
    - The water sample collected from the irrigation well at 2019 N Ruger Circle contained benzene at a concentration that exceeded the corresponding KDHE Tier 2 RBSV. The February 2015 benzene concentration (0.053 mg/L) was lower than the concentrations detected in that well in August 2013 (0.085 mg/L) and October 2013 (0.13 mg/L). As shown in Table 1, this irrigation well has been deactivated, and the irrigation system was reconfigured to receive municipal water.

2.5.1 Modified Irrigation Well Groundwater Monitoring Program

NuStar has tested groundwater in irrigation wells HOA-2 and 1910 N Quail Crossing for six consecutive quarterly events. During this period, petroleum constituents have never been detected in either well. Neither well is located in the vicinity of the pipeline release; both wells are located hydraulically upgradient of the release; and the groundwater plume is generally stable. Accordingly, NuStar proposes to remove these wells from the groundwater monitoring program. NuStar will continue to monitor other wells in accordance with the KDHE-approved monitoring plan.

3.0 Status Report

Work Completed – First Quarter 2015:

- SPH removal activities performed during the first quarter 2015 included: (1) vacuum extraction events at the irrigation well at 2006 N Colt Court on January 7 and February 9; (2) installation of an SPH skimmer in the irrigation well at 2006 N Colt Court on February 9, 2015; and (3) gauging and SPH skimmer O&M on March 18.
- One gauging event per week was performed through February 9, 2015. The gauging frequency was subsequently reduced to a monthly schedule. On March 18, 2015, a monthly gauging event was performed.
- The first quarter 2015 comprehensive groundwater monitoring event was performed during the week of February 9.
- The *Fourth Quarter 2014 Groundwater Monitoring Report* (Apex, 2015b) was submitted on February 18, 2015.
- The *Revised Groundwater Pilot Test Work Plan* was implemented, starting on March 10, 2015. During the period March 10 through March 19, 2015: (1) three new groundwater monitoring wells (MW-17 through MW-19) were installed; (2) baseline groundwater samples were collected from wells MW-1, MW-4, MW-5, and MW-17 through MW-19; and (3) oxygen-releasing compound (ORC Advanced®) was introduced into the subsurface. The methods and results of the pilot test will be presented in the forthcoming Groundwater Pilot Test Report.

Work Planned – Second Quarter 2015:

The following activities are planned for second quarter 2015:

- Performance of the second quarter 2015 comprehensive groundwater monitoring event. During that event, NuStar proposes to: (1) survey and gauge the following irrigation wells: 2005 N Colt Court; 2006 N Colt Court; 2007 N Colt Court; 2019 N Ruger Circle; 2020 N Ruger

Circle; and 2002 N Colt; and (2) discontinue collection of samples from the irrigation wells at 1910 Quail Crossing and HOA-2.

- Consistent with the *Groundwater Pilot Test Work Plan*, groundwater samples will be collected in April and June from wells MW-1, MW-4, MW-5, and MW-17 through MW-19 and analyzed for constituents specified in the work plan. The June sampling activities will be coordinated with the second quarter 2015 comprehensive groundwater monitoring event.
- Submittal of the *Detailed Soil Excavation Work Plan.* Preliminary excavation plans were submitted to the City of Andover in February 2015. NuStar will prepare the detailed excavation plan upon receipt of comments from the City of Andover; we anticipate receipt of those comments in April 2015 and submittal of the work plan in second quarter 2015.

4.0 References

Apex Companies, LLC (Apex), 2013. *Soil Vapor Extraction Pilot Test Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* November 15, 2013.

Apex, 2014a. *Soil Vapor Extraction Evaluation and Soil Investigation Report. Quail Crossing Neighborhood, Andover, Kansas.* March 28, 2014.

Apex, 2014b. *Comprehensive Investigation Report*. *Quail Crossing Neighborhood, Andover, Kansas.* April 30, 2014.

Apex, 2014c. *Soil Investigation Report and Proposed Soil Excavation Work Plan. Quail Crossing Neighborhood, Andover, Kansas.* July 17, 2014.

Apex, 2015a. *Revised Groundwater Pilot Test Work Plan. Quail Crossing Neighborhood, Andover, Kansas*. January 26, 2015.

Apex, 2015b. *Fourth Quarter 2014 Groundwater Monitoring Report*. *Quail Crossing Neighborhood, Andover, Kansas.* February 18, 2015.

Geosyntec, 2014. *Vapor Intrusion Assessment Work Plan. 1023 West Mountain, Andover, Kansas*. February 21, 2014.

O'Connor, Howard G., Chaffee, Pamela, and Link, Martha, 1982. *Geohydrology of Southwestern Butler County, Kansas: A Preliminary Report.* Kansas Geological Survey Open File Report 82-2. May 1982.

U.S. Environmental Protection Agency (EPA), 2012. *Framework for Site Characterization for Monitored Natural Attenuation of Volatile Organic Compounds in Ground Water*. EPA 600/R-12/712.

Table 1
Groundwater Monitoring Program – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Well ID	Gauging	GRO	VOCs
MW-1	M	Q	Q
MW-2	M	Q	Q
MW-3	M	Q	Q
MW-4	M	Q	Q
MW-5	M	Q	Q
MW-6	M	Q	Q
MW-7	M	Q	Q
MW-8	M	Q	Q
MW-9	M	Q	Q
MW-10	M	Q	Q
MW-11	M	Q	Q
MW-12	M	Q	Q
MW-13	M	Q	Q
MW-14	M	Q	Q
MW-15	M	Q	Q
MW-16	M	Q	Q

Notes:

1. GRO = Gasoline-range organics quantified by IOWA OA-1.
2. VOCs = Volatile organic compounds; benzene, toluene, ethylbenzene, xylenes [BTEX], 1,2-dicholoethane, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-butylbenzene, and n-propylbenzene by U.S. Environmental Protection Agency Method 8260B.
3. M = Performed monthly.
4. Q = Performed quarterly.
5. Monitoring wells will not be sampled if SPH are present.

Table 2
Groundwater Monitoring Program – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Well Status	Gauging	GRO	VOCs
2001 N Colt Ct	Currently in Use	--	Q	Q
2002 N Colt Ct	Deactivated	Q	Q	Q
2005 N Colt Ct	Deactivated	--	Q	Q
2006 N Colt Ct	Deactivated	Q	Q	Q
HOA-1	Currently in Use	--	Q	Q
HOA-2	Currently in Use	--	Q	Q
2007 N Colt Ct	Deactivated	Q	Q	Q
2019 N Ruger Cir	Deactivated	Q	Q	Q
2020 N Ruger Cir	Deactivated	Q	Q	Q
2028 N Ruger Cir	Deactivated	--	Q	Q
2032 N Ruger Cir	Deactivated	--	Q	Q
2021 N Ruger Ct	Deactivated	--	Q	Q
2025 N Ruger Ct	Currently in Use	--	Q	Q
1009 W Mountain	Currently in Use	--	Q	Q
2007 N Mountain Ct	Currently in Use	--	Q	Q
2009 N Mountain Ct	Currently in Use	--	Q	Q
1211 W Quail Crossing Ct	Currently in Use	--	Q	Q
1910 N Quail Crossing	Currently in Use	--	Q	Q

Notes:

1. GRO = Gasoline-Range Organics quantified by IOWA OA-1.
2. VOCs = Volatile organic compounds; benzene, toluene, ethylbenzene, xylenes [BTEX], 1,2-dicholoethane, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-butylbenzene, and n-propylbenzene by U.S. Environmental Protection Agency Method 8260B.
3. Deactivation includes plumbing the irrigation system to the municipal water system. The irrigation well is not permanently decommissioned.
4. Q = Performed quarterly.
5. Well locations are shown on Figure 2.

Table 3
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-1	1/7/2015	4.0	1352.13	35.0	20-35	31.75	--	--	1320.38
	1/14/2015					31.44	--	--	1320.69
	1/20/2015					31.45	--	--	1320.68
	1/28/2015					31.42	--	--	1320.71
	2/4/2015					31.44	--	--	1320.69
	2/9/2015					31.62	--	--	1320.51
	3/20/2015					31.38	--	--	1320.75
MW-2	1/7/2015	2.0	1353.17	44.0	29-44	NM	--	--	NM
	1/14/2015					32.90	--	--	1320.27
	1/20/2015					32.93	--	--	1320.24
	1/28/2015					32.89	--	--	1320.28
	2/4/2015					32.92	--	--	1320.25
	2/9/2015					33.15	--	--	1320.02
	3/18/2015					32.87	--	--	1320.30
MW-3	1/7/2015	2.0	1350.47	60.0	40-60	NM	--	--	NM
	1/14/2015					41.35	--	--	1309.12
	1/20/2015					41.36	--	--	1309.11
	1/28/2015					42.22	--	--	1308.25
	2/4/2015					41.12	--	--	1309.35
	2/9/2015					40.60	--	--	1309.87
	3/18/2015					41.02	--	--	1309.45
MW-4	1/7/2015	2.0	1350.73	41.0	26-41	NM	--	--	NM
	1/14/2015					31.52	--	--	1319.21
	1/20/2015					31.55	--	--	1319.18
	1/28/2015					31.66	--	--	1319.07
	2/4/2015					31.70	--	--	1319.03
	2/9/2015					31.75	--	--	1318.98
	3/18/2015					31.22	--	--	1319.51
MW-5	1/7/2015	2.0	1352.77	30.0	15-30	NM	--	--	NM
	1/14/2015					20.56	--	--	1332.21
	1/20/2015					20.55	--	--	1332.22
	1/28/2015					20.58	--	--	1332.19
	2/4/2015					20.69	--	--	1332.08
	2/9/2015					20.58	--	--	1332.19
	3/18/2015					20.80	--	--	1331.97
MW-6	1/7/2015	2.0	1349.76	41.0	26-41	NM	--	--	NM
	1/14/2015					22.59	--	--	1327.17
	1/20/2015					22.45	--	--	1327.31
	1/28/2015					22.54	--	--	1327.22
	2/4/2015					22.59	--	--	1327.17
	2/9/2015					22.77	--	--	1326.99
	3/18/2015					22.62	--	--	1327.14

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-7	1/7/2015	2.0	1348.98	24.0	9-24	NM	--	--	NM
	1/14/2015					16.49	--	--	1332.49
	1/20/2015					16.55	--	--	1332.43
	1/28/2015					16.56	--	--	1332.42
	2/4/2015					16.56	--	--	1332.42
	2/9/2015					16.58	--	--	1332.40
	3/18/2015					16.63	--	--	1332.35
MW-8	1/7/2015	2.0	1353.38	30.0	15-30	NM	--	--	NM
	1/14/2015					21.64	--	--	1331.74
	1/20/2015					21.70	--	--	1331.68
	1/28/2015					21.72	--	--	1331.66
	2/4/2015					21.92	--	--	1331.46
	2/9/2015					21.88	--	--	1331.50
	3/18/2015					21.96	--	--	1331.42
MW-9	1/7/2015	2.0	1349.48	34.0	19-34	NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					NM	--	--	NM
	1/28/2015					31.81	--	--	1317.67
	2/4/2015					31.90	--	--	1317.58
	2/9/2015					31.78	--	--	1317.70
	3/18/2015					31.59	--	--	1317.89
MW-10	1/7/2015	2.0	1348.79	34.0	19-34	NM	--	--	NM
	1/14/2015					28.45	--	--	1320.34
	1/20/2015					28.42	--	--	1320.37
	1/28/2015					28.44	--	--	1320.35
	2/4/2015					28.49	--	--	1320.30
	2/9/2015					28.54	--	--	1320.25
	3/18/2015					28.42	--	--	1320.37
MW-11	1/7/2015	2.0	1351.34	42.0	22-42	NM	--	--	NM
	1/14/2015					28.88	--	--	1322.46
	1/20/2015					28.88	--	--	1322.46
	1/28/2015					28.97	--	--	1322.37
	2/4/2015					28.94	--	--	1322.40
	2/9/2015					29.26	--	--	1322.08
	3/19/2015					29.84	--	--	1321.50
MW-12	1/7/2015	2.0	1349.74	43.0	23-43	NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					31.04	--	--	1318.70
	1/28/2015					31.05	--	--	1318.69
	2/4/2015					31.07	--	--	1318.67
	2/9/2015					31.06	--	--	1318.68
	3/18/2015					30.95	--	--	1318.79

Please refer to notes at end of table.

Table 3
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-13	1/7/2015	2.0	1354.58	45.0	25-45	NM	--	--	NM
	1/14/2015					33.06	--	--	1321.52
	1/20/2015					32.93	--	--	1321.65
	1/28/2015					32.85	--	--	1321.73
	2/4/2015					33.07	--	--	1321.51
	2/9/2015					32.81	--	--	1321.77
	3/18/2015					33.16	--	--	1321.42
MW-14	1/7/2015	2.0	1354.99	45.0	25-45	NM	--	--	NM
	1/14/2015					33.51	--	--	1321.48
	1/20/2015					33.59	--	--	1321.40
	1/28/2015					33.65	--	--	1321.34
	2/4/2015					33.88	--	--	1321.11
	2/9/2015					34.00	--	--	1320.99
	3/18/2015					33.94	--	--	1321.05
MW-15	1/7/2015	2.0	1351.79	45.0	25-45	NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					34.93	--	--	1316.86
	1/28/2015					34.98	--	--	1316.81
	2/4/2015					35.12	--	--	1316.67
	2/9/2015					35.02	--	--	1316.77
	3/18/2015					35.04	--	--	1316.75
MW-16	1/7/2015	2.0	1352.13	45.0	25-45	NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					30.71	--	--	1321.42
	1/28/2015					20.13	--	--	1332.00
	2/4/2015					30.76	--	--	1321.37
	2/9/2015					31.09	--	--	1321.04
	3/18/2015					31.80	--	--	1320.33
Stormwater Pond (stage - feet MSL)	1/7/2015	NA	NA	NA	NA	NA	NA	NA	NM
	1/14/2015								NM
	1/20/2015								1344.00
	1/28/2015								1343.75
	2/4/2015								1344.25
	2/9/2015								1344.00
	3/18/2015								1343.50

Notes:

1. feet MSL = Feet above mean sea level (NAVD88).
2. -- = No SPH
3. NM = not measured.
4. Pond stage is measured directly from a staff gauge in the pond (in 0.25-foot increments).
   The top of the staff gauge is 1347.59 feet above mean sea level.
5. NA = Not applicable.

Table 4
Separate- and Dissolved-Phase Recovery Data
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water; gallons)	SPH Thickness After Removal Event	Fluid Removal Technology
1/7/2015	46.87	46.78	0.09	0.2	50.0	0.01	Mobile vacuum truck
1/14/2015	46.32	46.29	0.03	0.0	0.0	0.03	None
1/20/2015	46.27	--	--	0.0	0.0	0.00	None
1/28/2015	47.34	47.27	0.07	0.0	0.0	0.07	None
2/4/2015	45.92	45.84	0.08	0.0	0.0	0.08	None
2/9/2015	45.59	45.55	0.04	0.1	50.0	0.01	Mobile vacuum truck
3/18/2015	45.55	--	--	0.3	0.3	0.00	SPH Skimmer
			Total Fluids Recovered	0.6	100		

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interva
3. NM = Not measured.
4. -- = No SPH.

Table 5
Groundwater Quality Parameters
NuStar Pipeline Release Site
Arkansas City, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-1	1/30/2014	15.79	0.00	1060	7.25	-52
	4/9/2014	19.22	5.52	979	6.98	-130
	7/23/2014	19.98	5.35	1251	7.49	-110
	10/29/2014	15.81	3.21	1369	6.97	-60
	2/12/2015	11.33	1.43	1250	6.77	-57
MW-2	1/30/2014	15.50	0.00	843	6.22	99
	4/8/2014	15.29	4.05	752	6.77	7
	7/22/2014	21.74	4.79	852	4.79	55
	10/30/2014	19.07	4.87	813	7.21	130
	2/10/2015	14.90	3.16	816	5.77	129
MW-3	1/30/2014	11.91	0.00	853	4.05	18
	4/8/2014	17.25	8.41	740	6.96	-11
	7/24/2014	25.79	2.89	971	7.18	-95
	10/30/2014	18.47	0.96	901	7.07	-236
	2/10/2015	16.27	0.93	940	6.68	-85
MW-4	1/30/2014	14.01	2.78	1130	5.46	158
	4/9/2014	14.99	2.54	968	6.95	132
	7/24/2014	20.53	0.57	1135	7.24	-9
	10/30/2014	16.98	0.54	1083	7.03	-146
	2/10/2015	16.62	1.07	1044	6.54	-48
MW-5	1/30/2014	15.57	0.00	1300	6.96	57
	4/8/2014	15.99	1.09	1190	6.92	189
	7/23/2014	20.70	2.28	1458	7.17	64
	10/29/2014	19.39	0.49	1453	6.98	127
	2/10/2015	15.98	1.38	1444	6.47	93
MW- 6	1/30/2014	15.54	0.63	986	7.11	146
	4/9/2014	16.58	9.16	797	7.00	201
	7/24/2014	19.56	5.64	1303	7.27	17
	10/29/2014	18.08	4.29	1137	7.09	160
	2/11/2015	13.07	4.06	893	6.91	100
MW-7	1/30/2014	16.13	0.00	667	7.21	-37
	4/9/2014	15.78	9.43	566	7.08	23
	7/24/2014	18.24	0.66	740	7.38	-11
	10/29/2014	17.47	0.22	754	7.25	-33
	2/11/2015	15.25	0.80	662	6.93	18
MW-8	1/30/2014	16.94	1.56	1120	7.00	109
	4/8/2014	16.42	9.18	976	6.80	170
	7/22/2014	19.71	4.88	1156	7.27	70
	10/29/2014	20.01	3.92	1051	7.19	138
	2/10/2015	16.90	2.66	1178	6.44	100
MW-9	1/30/2014	12.13	0.00	760	4.50	8
	4/8/2014	16.65	4.05	725	7.07	192
	7/24/2014	23.24	3.59	1080	7.11	48
	10/30/2014	16.72	5.61	977	7.08	98
	2/11/2015	15.06	3.13	884	7.05	91

Please refer to notes at end of table.

Table 5
Groundwater Quality Parameters
NuStar Pipeline Release Site
Arkansas City, Kansas

Sample Location	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm)	pH	ORP
MW-10	1/30/2014	14.31	0.00	1340	4.90	-44
	4/8/2014	17.01	0.18	982	6.79	-105
	8/1/2014	21.23	9.61	1236	7.59	77
	10/29/2014	19.71	1.80	1302	6.90	88
	2/11/2015	13.84	1.67	984	6.88	99
MW-11	1/30/2014	16.22	6.91	1320	6.54	185
	4/8/2014	16.61	6.09	1140	7.05	199
	7/23/2014	20.17	2.45	1438	7.24	100
	10/30/2014	18.55	4.02	1404	7.11	91
	2/10/2015	16.66	4.01	1314	6.61	72
MW-12	1/30/2014	14.13	0.00	927	5.44	66
	4/9/2014	19.96	8.58	774	7.01	30
	7/22/2014	24.34	0.85	1067	7.11	-5
	10/29/2014	18.73	0.63	967	7.13	-67
	2/12/2015	15.09	1.11	906	6.78	45
MW-13	1/30/2014	15.00	6.53	774	7.04	158
	4/8/2014	15.35	7.03	674	6.93	109
	7/22/2014	23.53	8.10	790	7.31	76
	10/29/2014	19.97	6.70	767	7.19	135
	2/10/2015	15.74	4.85	759	6.25	110
MW-14	1/30/2014	15.31	3.53	724	7.00	183
	4/9/2014	18.75	5.62	608	7.06	181
	7/22/2014	22.63	4.81	683	7.32	66
	10/29/2014	17.09	5.49	703	7.29	101
	2/12/2015	14.50	4.17	687	6.73	94
MW-15	1/30/2014	12.24	0.00	732	5.65	218
	4/8/2014	15.84	9.96	653	6.93	180
	7/23/2014	18.11	4.78	734	7.31	92
	10/29/2014	20.21	4.49	728	7.16	147
	2/10/2015	16.94	3.79	732	6.56	75
MW-16	1/30/2014	12.34	2.39	929	5.79	191
	4/8/2014	15.65	8.32	713	6.91	181
	7/23/2014	21.58	4.60	981	7.28	87
	10/29/2014	20.13	4.36	972	7.09	156
	2/10/2015	16.70	3.25	924	6.73	97

Notes:

1. °C = Degrees Celsius.
2. mg/L = Milligrams per liter.
3. ORP = Oxidation-reduction potential.
4. Specific Conductivity was documented as millisiemens/centimeter on the field sampling sheets.
   The value is reported in this table as microsiemens/centimeter.

Table 6
Groundwater Analytical Results – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
MW-1	8/9/2013	120	0.86	<0.05	0.22	<0.1	9.1	0.37	1.9	<0.05	6.3	0.1	0.23	<0.05	0.068	2.8	26	9.1
	10/24/2013	39	0.69	<0.010	0.19	0.050	7.8	0.26	2.0	0.031	4.9	0.043	0.14	0.011	0.084	2.2	18	7.1
	1/30/2014	44	1.0	<0.025	0.30	<0.05	3.1	0.45	1.4	0.045	3.5	0.076	0.29	0.030	0.14	1.6	9.3	5.2
	4/9/2014	20	0.49	<0.010	0.18	<0.020	1.1	<0.01	0.2	0.011	--	0.023	0.069	0.018	0.016	--	3.1	2.5
	7/23/2014	49	0.39	<0.001	0.11	0.023	3.1	0.059	0.61	0.011	2.2	<0.010	0.044	<0.010	0.019	1.2	6.4	3.4
	10/29/2014	45	0.47	<0.010	0.19	<0.020	5.0	0.051	0.50	<0.010	3.4	0.015	0.043	<0.010	<0.010	2.2	12	5.5
	2/12/2015	5.8	<0.010	<0.010	<0.010	<0.020	0.26	<0.010	0.077	<0.010	0.64	0.016	0.022	<0.010	<0.010	0.36	0.99	0.99
MW-2	8/8/2013	2.3	<0.005	<0.005	<0.005	0.13	0.12	0.099	<0.005	<0.005	0.017	0.02	<0.005	<0.005	<0.005	<0.005	0.027	0.021
DUP	8/8/2013	2.2	<0.005	<0.005	<0.005	0.13	0.15	0.11	<0.005	<0.005	0.021	0.021	<0.005	<0.005	<0.005	<0.005	0.031	0.026
	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.11	0.0085	<0.001	0.0030	<0.002	0.0034	0.0038	0.018	<0.001	0.010	0.0013	0.0024	<0.001	0.0014	0.0097	0.0095	0.020
	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-3	8/9/2013	6	0.054	<0.005	0.01	0.016	1.2	0.07	0.12	<0.005	0.086	0.014	0.011	<0.005	0.0074	0.12	0.4	0.21
	10/24/2013	1.7	0.075	<0.001	0.012	0.0057	1.1	0.082	0.12	0.0061	0.065	0.011	0.017	0.010	0.010	0.011	0.051	0.077
DUP	10/24/2013	2.0	0.073	<0.001	0.012	0.0059	1.1	0.077	0.11	0.0058	0.063	0.011	0.018	0.001	0.010	0.011	0.051	0.075
	1/28/2014	2.8	0.038	<0.001	<0.001	0.0069	0.76	0.072	0.07	0.0062	0.0098	0.0061	0.0081	<0.001	0.0079	<0.001	0.0081	0.011
	4/8/2014	3.0	0.048	<0.005	0.01	<0.01	0.64	<0.005	0.058	0.0061	--	0.0075	0.014	<0.005	0.011	--	0.1	0.053
	7/24/2014	9.8	0.16	<0.010	0.037	<0.020	1.8	0.081	0.51	<0.010	0.32	<0.010	0.028	<0.010	0.023	0.51	1.6	0.83
	10/30/2014	6.1	0.12	<0.010	0.025	<0.020	1.1	0.085	0.36	<0.010	0.17	0.019	0.029	<0.010	0.018	0.18	0.15	0.35
	2/10/2015	7.9	0.19	<0.010	0.047	<0.020	1.4	0.15	0.52	0.014	0.41	0.034	0.054	<0.010	0.032	0.32	0.93	0.73

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
MW-4	8/8/2013	0.48	0.0013	<0.001	0.0013	<0.002	0.035	0.012	0.0075	0.0013	0.027	0.0027	0.0027	<0.001	0.0022	0.011	0.056	0.038
	10/23/2013	1.0	0.0096	<0.001	0.016	0.0046	0.083	0.050	0.017	<0.0010	0.0071	0.0085	0.0036	<0.001	0.0013	0.034	0.034	0.041
	1/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	2.5	0.054	<0.001	0.027	0.0043	0.23	0.070	0.15	0.0039	--	0.0071	0.016	0.0022	0.0084	--	0.2	0.14
	7/24/2014	0.75	0.047	<0.001	0.017	<0.002	0.11	0.022	0.049	0.0029	0.043	0.0027	0.0092	<0.001	0.0070	0.028	0.015	0.070
DUP	7/24/2014	0.79	0.054	<0.001	0.019	<0.002	0.11	0.025	0.057	0.0033	0.050	0.0031	0.0098	0.0017	0.0080	0.032	0.017	0.083
	10/30/2014	4.8	0.20	<0.001	0.089	<0.002	0.49	0.097	0.40	0.014	0.20	0.017	0.062	0.0078	0.039	0.24	0.33	0.44
	2/10/2015	1.6	0.12	<0.001	0.058	<0.002	0.17	0.052	0.12	0.0042	0.022	0.0092	0.019	0.0058	0.0077	0.081	0.042	0.10
MW-5	8/8/2013	0.94	0.015	<0.001	0.15	<0.002	0.038	0.24	0.002	0.0018	0.11	0.0046	0.0084	<0.001	0.0023	0.0068	0.05	0.17
	10/24/2013	2.1	0.098	<0.001	0.028	<0.002	0.081	0.039	0.063	0.0051	0.20	0.0075	0.023	0.0026	0.011	0.12	0.10	0.32
	1/30/2014	0.61	0.038	0.0012	0.011	<0.002	0.05	0.018	0.034	0.0022	0.041	0.0017	0.0086	<0.001	0.0046	0.033	0.009	0.075
	4/8/2014	0.35 J	0.0051 J	<0.001	0.0013 J	0.0021 J	0.025 J	<0.001	0.0018 J	0.0021 J	--	0.0015 J	0.0085 J	<0.001	<0.001	--	0.0024 J	0.041 J
DUP	4/8/2014	0.52 J	0.012 J	<0.001	0.0035 J	0.0033 J	0.037 J	<0.001	0.0058 J	0.003 J	--	0.0019 J	0.013 J	0.001	0.0014 J	--	0.0061 J	0.06 J
	7/23/2014	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	0.0014	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	7/23/2014	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	0.0013	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.050	<0.001	<0.001	<0.001	<0.002	0.0018	<0.001	<0.001	<0.001	0.0048	<0.001	<0.001	<0.001	<0.001	0.0027	0.010	0.0075
	2/10/2015	0.27	0.0092	<0.001	0.0024	<0.002	0.040	0.016	0.0071	0.0020	0.0068	0.0030	0.0069	0.0016	0.0021	0.011	0.0092	0.018
MW-6	8/9/2013	<0.05	<0.001	<0.001	<0.001	0.0029	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	<0.001	<0.001	<0.001	<0.002	0.0031	<0.001	0.0032	<0.001	0.0027	<0.001	<0.001	<0.001	<0.001	0.0031	0.0083	0.0059
	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0028	<0.001	<0.001	<0.001	<0.001	0.0014	0.0052	0.0042
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
MW-7	8/9/2013	<0.05	<0.001	<0.001	<0.001	<0.002	0.0012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.003
	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0024	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-8	8/8/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	0.16	0.0026	<0.001	0.001	<0.002	0.0030	<0.001	0.0049	<0.001	0.013	<0.001	0.0041	<0.001	<0.001	0.0056	0.02	0.018
DUP	1/30/2014	0.15	0.0031	<0.001	0.001	<0.002	0.0038	<0.001	0.0056	0.0011	0.014	<0.001	0.0040	<0.001	<0.001	0.0064	0.025	0.021
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	0.0014	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0024	0.0082	0.0065
DUP	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	0.0013	<0.001	<0.001	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	0.0021	0.0081	0.0063
	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-9	8/9/2013	36	0.82	<0.001	0.23	0.23	0.99	0.21	0.65	0.025	2.8	0.048	0.17	0.014	0.068	1.3	4.4	4.1
	10/23/2013	0.054	<0.001	<0.001	<0.001	<0.002	0.0026	0.0011	<0.001	<0.001	<0.002	0.0025	0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	11/25/2013	0.57	0.022	<0.010	0.013	0.004	0.058	0.017	0.0019	<0.001	0.019	0.0028	0.0084	<0.001	<0.001	0.018	0.005	0.037
	1/28/2014	0.058	<0.001	<0.001	<0.001	<0.002	0.0046	0.0015	<0.001	<0.001	<0.002	<0.001	0.0033	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	<0.001	<0.001	<0.001	<0.002	0.0017	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0026	<0.003
DUP	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0023	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
MW-10	8/9/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/23/2013	2.6	0.033	<0.001	0.029	0.014	0.051	0.069	0.0034	<0.001	0.27	0.021	0.0013	0.0014	<0.001	0.15	0.14	0.42
	11/25/2013	3.7	0.22	<0.001	0.072	0.019	0.016	0.081	0.027	0.0065	0.26	0.016	0.023	<0.001	0.025	0.12	0.048	0.38
	1/28/2014	1.1	0.12	<0.001	0.039	0.0023	0.026	0.0081	0.036	0.0049	0.073	0.0036	0.014	0.0064	0.015	0.05	0.048	0.12
	4/8/2014	8.8	0.56	<0.005	0.23	<0.01	0.12	<0.005	0.11	0.011	--	0.026	0.035	<0.005	<0.005	--	0.3	1.1
	8/1/2014	0.091	<0.001	<0.001	<0.001	0.0066	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.066	<0.001	<0.001	<0.001	<0.002	0.0021	<0.001	<0.001	<0.001	0.0058	<0.001	<0.001	<0.001	<0.001	0.0034	0.013	0.0092
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-11	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0024	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	0.25	0.016	<0.001	0.0058	<0.02	0.012	0.0078	0.038	0.0011	0.021	0.0014	0.0059	<0.001	0.0024	0.023	0.023	0.044
	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.0010	<0.001	<0.002	<0.001	0.0034	<0.001	<0.001	<0.001	<0.001	<0.003
MW-12	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/9/2014	0.081	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.12	0.0011	<0.001	<0.001	<0.002	0.0050	<0.001	0.0017	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	0.0063	0.027	0.016
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0054	<0.001	<0.001	<0.001	<0.001	0.0029	0.0064	0.0083
MW-13	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0032	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	0.072	0.0014	<0.001	<0.001	<0.002	0.0011	<0.001	0.0024	<0.001	0.0063	<0.001	0.0038	<0.001	<0.001	0.0026	0.0083	0.0089
	4/8/2014	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	0.056	<0.001	<0.001	<0.001	<0.002	0.0028	<0.001	0.0011	<0.001	0.0065	<0.001	<0.001	<0.001	<0.001	0.0040	0.015	0.011
	2/10/2015	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 6
Groundwater Analytical Results – Monitoring Wells
Andover Colt Court Release Site
Andover, Kansas

Sample Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
MW-14	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	0.0011	<0.001	<0.001	<0.002	<0.001	<0.001	0.0016	<0.001	0.0043	<0.001	<0.001	<0.001	<0.001	0.0017	0.0059	0.0061
	4/9/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/22/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	**0.54**	0.0029	<0.001	0.0013	<0.002	**0.021**	<0.001	0.0049	<0.001	0.036	<0.001	<0.001	<0.001	<0.001	0.022	0.10	0.058
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-15	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	0.0012	<0.001	<0.001	<0.001	0.0030	<0.001	<0.001	<0.001	<0.001	0.0018	0.0072	0.0048
	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
MW-16	10/23/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	0.0027	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	1/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/8/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	0.0026	<0.001	<0.001	<0.001	<0.001	0.0014	0.0050	0.0040
	2/10/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
KDHE Tier 2 Values		0.5	0.00844	0.005	0.044	4.92	0.005	7.02	0.7	0.45	--	--	0.00111	0.169	0.66	--	1	10

Notes:

1. GRO = Gasoline-range organics quantified by IOWA OA-1.
2. Volatile organic compounds by U.S. Environmental Protection Agency (EPA) Method 8260B.
3. mg/L (ppm) = Milligrams per liter (parts per million).
4. **Bold** indicates detected concentration above the KDHE screening value.
5. < = Not detected above the method reporting limit (MRL).
6. -- = Not analyzed or not established.
7. KDHE Tier 2 Screening Values from the *Risk-Based Standards for Kansas, 5th Edition* , October 2010.
8. J = Estimated concentration. See Appendix C for more information.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
2005 N Colt Ct	7/26/2013	6.6	0.16	<0.005	0.045	0.019	0.47	0.09	0.13	<0.005	0.27	0.014	0.027	<0.005	0.013	0.17	0.34	0.44
	10/24/2013	4.2	0.14	<0.001	0.022	<0.002	0.31	0.073	0.19	0.0055	0.27	0.012	0.023	0.0039	0.017	0.15	0.35	0.42
	1/31/2014	3.7	0.13	0.0041	0.029	<0.002	0.15	0.07	0.17	0.0057	0.26	0.01	0.017	0.0034	0.018	0.14	0.33	0.40
	4/10/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/23/2014	0.39	0.018	<0.001	0.0039	<0.002	0.027	0.011	0.023	<0.001	0.025	0.0019	0.0025	<0.001	0.0022	0.019	0.043	0.044
	10/30/2014	2.2	0.077	<0.001	0.0094	<0.002	0.23	0.055	0.19	0.0043	0.078	0.0091	0.017	0.0013	0.014	0.043	0.21	0.12
	2/12/2015	1.4	0.039	<0.001	0.0091	<0.002	0.059	0.022	0.041	0.0013	0.053	0.0039	0.0045	<0.001	0.0044	0.034	0.11	0.088
2002 N Colt Ct	7/26/2013	<0.05	<0.001	<0.001	<0.001	<0.002	0.0047	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.0010		<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
HOA-1	8/20/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
HOA-2	10/31/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2006 N Colt Ct	6/12/2012	--	--	<0.005	--	<0.0020	17	3.0	14	0.64	46	1.1	5.2	--	--	19	91	65
	4/10/2014	23	0.75	<0.005	0.28	0.026	0.98	0.16	0.36	0.016	--	0.038	0.076	<0.005	0.048	--	2	2.1
2007 N Colt Ct	7/26/2013	0.71	0.018	<0.001	0.0061	<0.002	0.14	0.018	0.01	0.0014	0.025	0.002	0.0052	<0.001	0.002	0.024	0.045	0.048
	10/25/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/29/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/10/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	0.4	0.025	<0.001	<0.001	<0.002	0.052	0.019	0.027	<0.001	0.023	0.0018	0.0039	<0.001	0.0025	0.0025	0.022	0.025
2019 N Ruger Cir	8/9/2013	0.42	<0.001	<0.001	<0.001	<0.002	0.085	0.026	0.0034	0.0013	0.0046	0.0035	0.0021	<0.001	0.0016	0.0034	0.017	0.0081
	10/25/2013	0.28	0.015	<0.001	<0.001	<0.002	0.13	0.0084	0.0062	<0.0010	<0.0020	0.0030	0.0010	<0.001	<0.001	<0.001	0.0011	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.050	<0.001	<0.001	<0.001	0.0032	0.0048	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.17	0.0018	<0.001	<0.001	<0.002	0.069	0.0051	<0.001	<0.001	--	<0.001	0.0016	<0.001	<0.001	0.0048	0.002	0.0055
	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	0.12	<0.001	<0.001	<0.001	<0.002	0.053	0.0054	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
2020 N Ruger Cir	7/26/2013	<0.05	<0.001	<0.001	<0.001	<0.002	0.0015	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/20/2014	0.075	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	0.38	<0.001	<0.001	<0.001	0.16	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	0.059	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2028 N Ruger Cir	8/20/2013	0.47	<0.001	<0.001	<0.001	<0.002	0.011	0.042	<0.001	<0.001	<0.002	0.0051	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/30/2014	<0.05	<0.001	<0.001	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/10/2014	0.066	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	7/23/2014	<0.05	<0.001	<0.001	<0.001	0.0037	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
DUP	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2032 N Ruger Cir	8/20/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.03
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
2021 N Ruger Ct	8/28/2013	<0.050	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	10/25/2013	<0.050	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	1/29/2014	<0.05	<0.001	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
2025 N Ruger Ct	8/28/2013	<0.050	0.0028	<0.0010	0.0012	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	10/25/2013	<0.050	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	1/31/2014	<0.050	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0030
	4/10/2014	<0.050	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0030
1009 W Mountain	8/20/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
2007 N Mountain Ct	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.0010	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	<0.0010	<0.001	<0.001	0.014	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
2009 N Mountain Ct	8/20/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/29/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/28/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/11/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
1211 W Quail Crossing Ct	8/20/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/25/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	1/31/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
DUP	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/23/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003

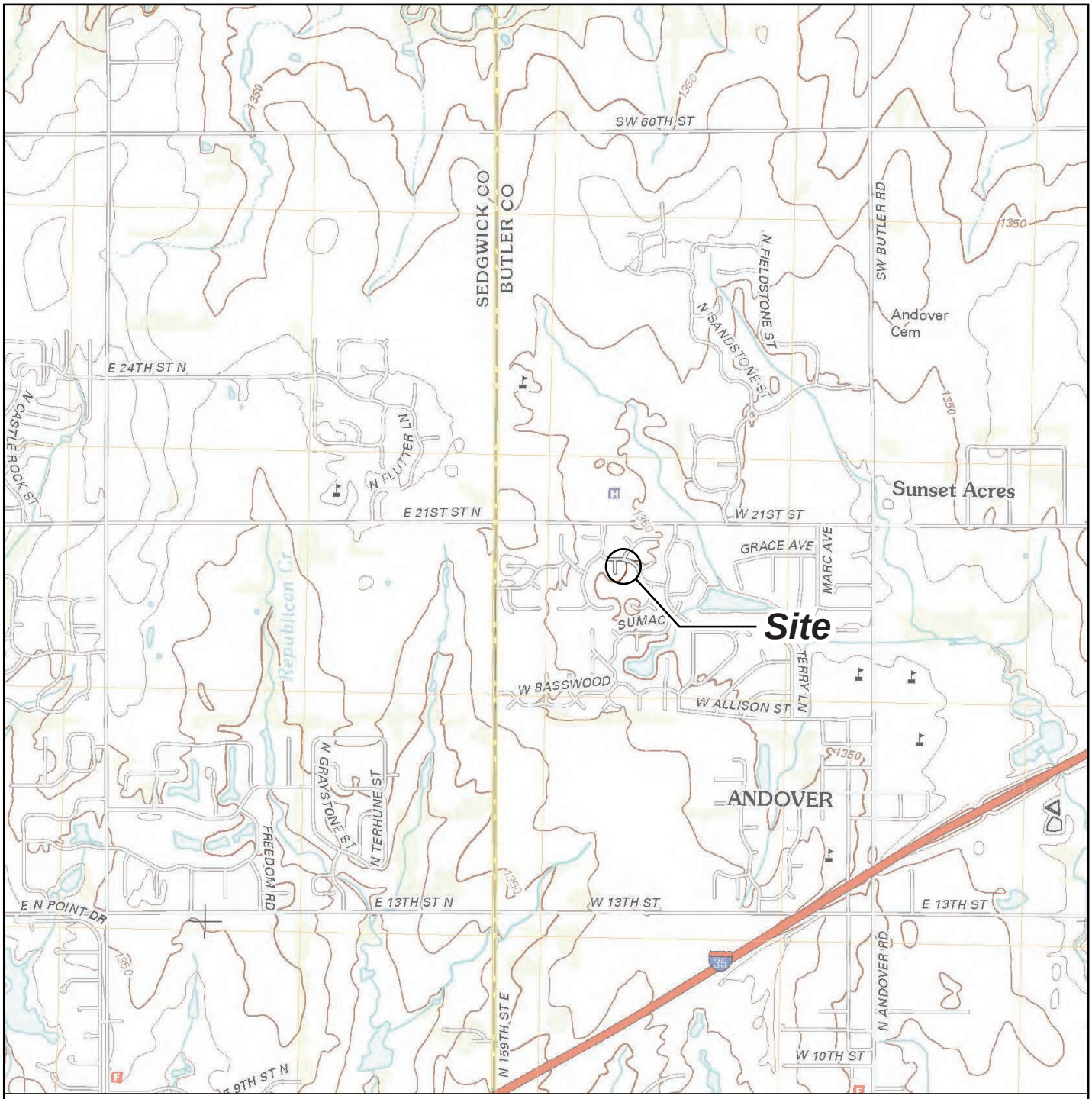
Please refer to notes at end of table.

Table 7
Groundwater Analytical Results – Irrigation Wells
Andover Colt Court Release Site
Andover, Kansas

Well Location	Sample Date	GRO	1,2,4 Trimethylbenzene	1,2 Dichloroethane	1,3,5- Trimethylbenzene	2-Butanone	Benzene	Cyclohexane	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methylcyclohexane	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	Toluene	Total Xylenes
		Concentrations in mg/L (ppm)																
1910 N Quail Crossing	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/24/2013	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	4/10/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.003
	7/24/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	10/30/2014	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	2/12/2015	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
KDHE Tier 2 Values		0.5	0.00844	0.005	0.044	4.92	0.005	7.02	0.7	0.45	NE	NE	0.00111	0.169	0.66	NE	1	10

Notes:

1. GRO = Gasoline-range organics quantified by IOWA OA-1.
2. Volatile organic compounds by U.S. Environmental Protection Agency (EPA) Method 8260B.
3. mg/L (ppm) = Milligrams per liter (parts per million).
4. **Bold** indicates detected concentration above the KDHE screening value.
5. < = Not detected above the method reporting limit (MRL).
6. NE = A KDHE Tier 2 Risk Based Screening Value has not been established.
7. KDHE Tier 2 Screening Values from the *Risk-Based Standards for Kansas, 5th Edition*, October 2010.
8. Well locations are shown on Figure 2.
9. NS = No sample collected.
10. -- = Not analyzed.



Note: Base map prepared from USGS 7.5-minute quadrangles of Andover, KS, dated 2012 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

KANSAS

N

Site Location Map

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	1641-08	Figure
	April 2015		1

N

Legend:

- **MW-1** Monitoring Well Location
- Irrigation Well
- **VP-1** Soil Vapor Monitoring Point
- **B-1** Boring Location
- Property Line
- Pipeline
- Pipeline Easement Boundary
- HOA — Lot Owned by Quail Crossing Homeowner's Association
- Deactivated Irrigation Well
- Excavation Area

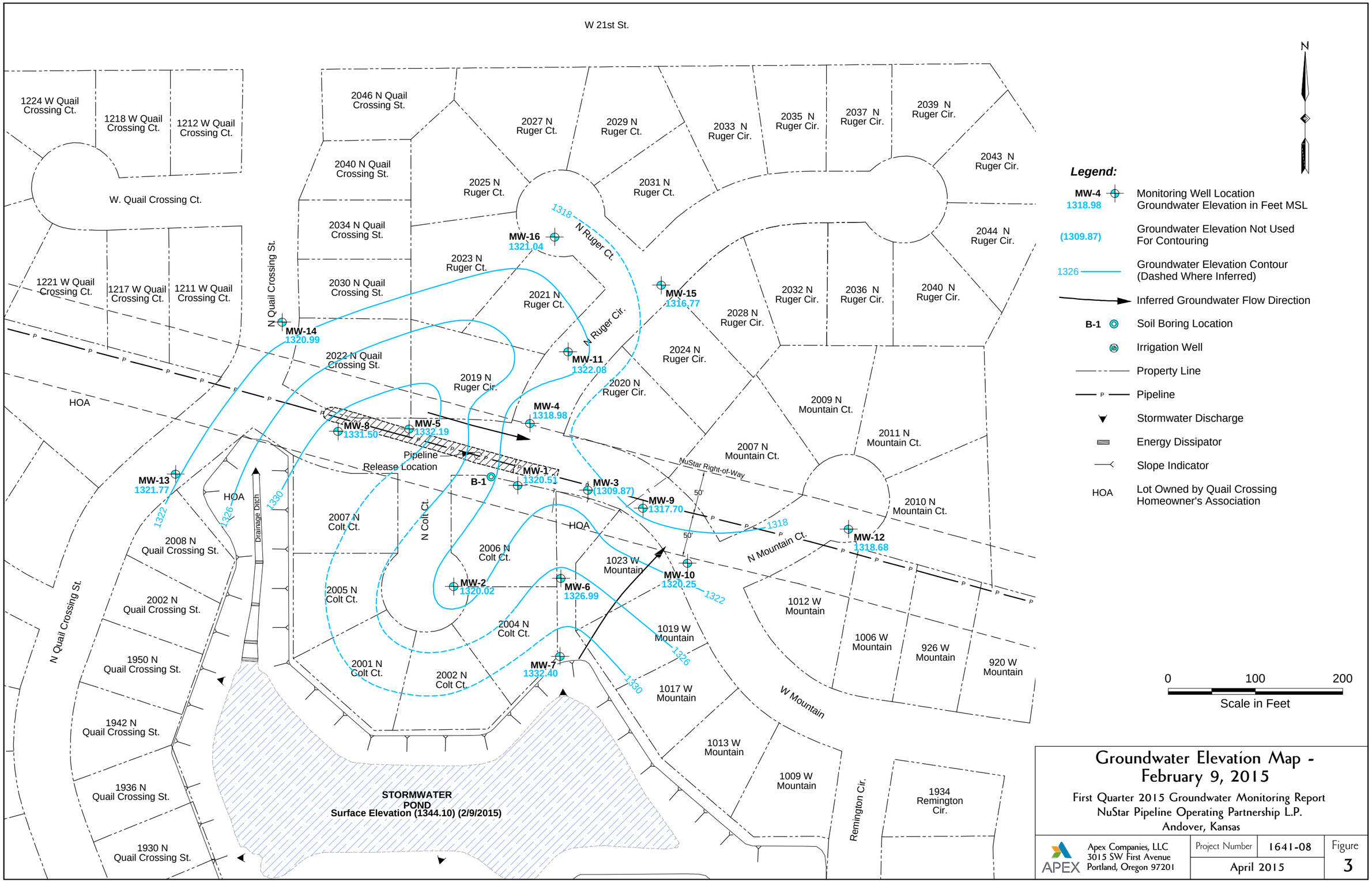
0 100 200

Scale in Feet

Site Plan and Sampling Location Map

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

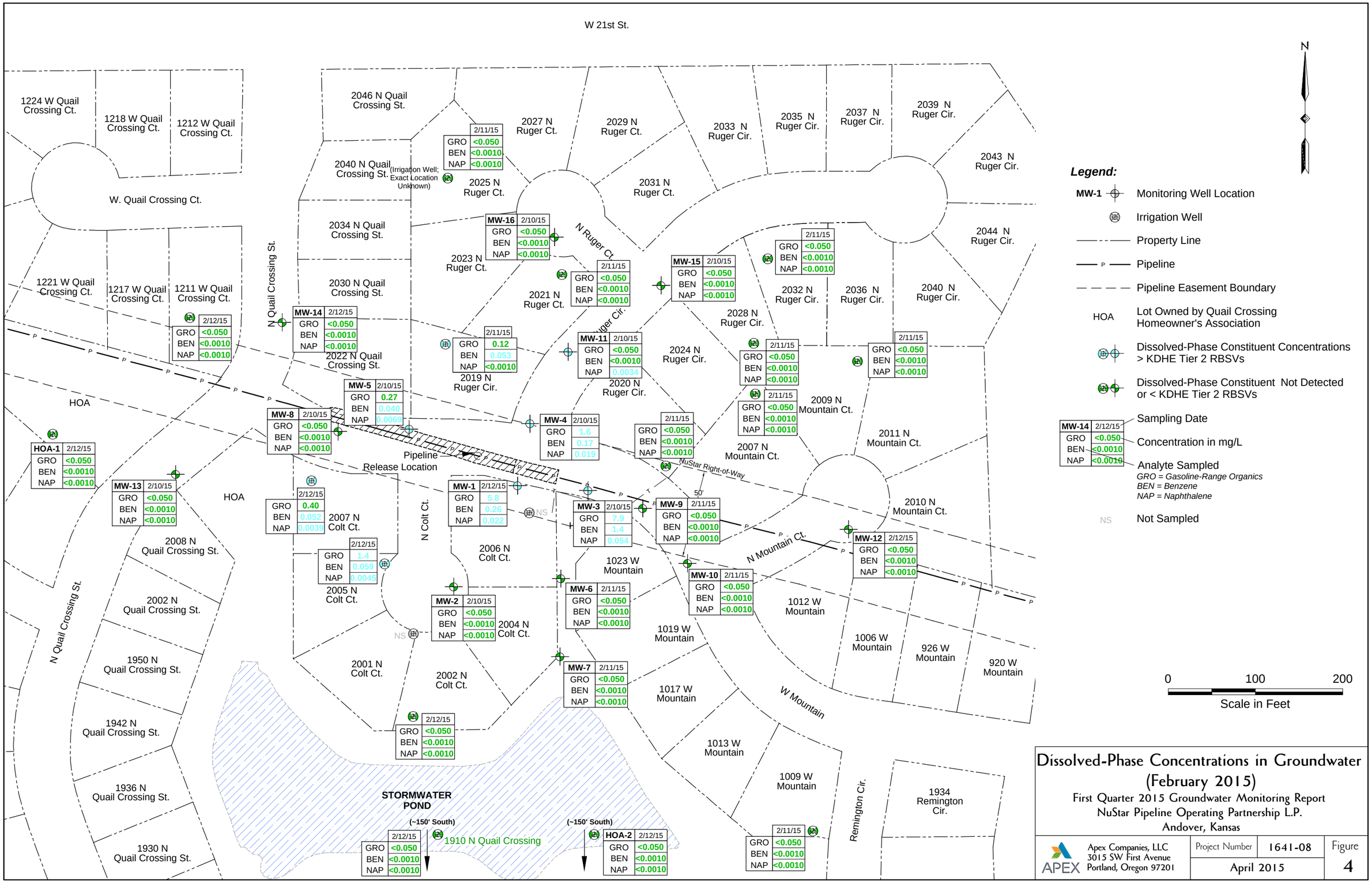
APEX	Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number 1641-08 April 2015	Figure 2



Groundwater Elevation Map - February 9, 2015

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	1641-08	Figure
	April 2015		3

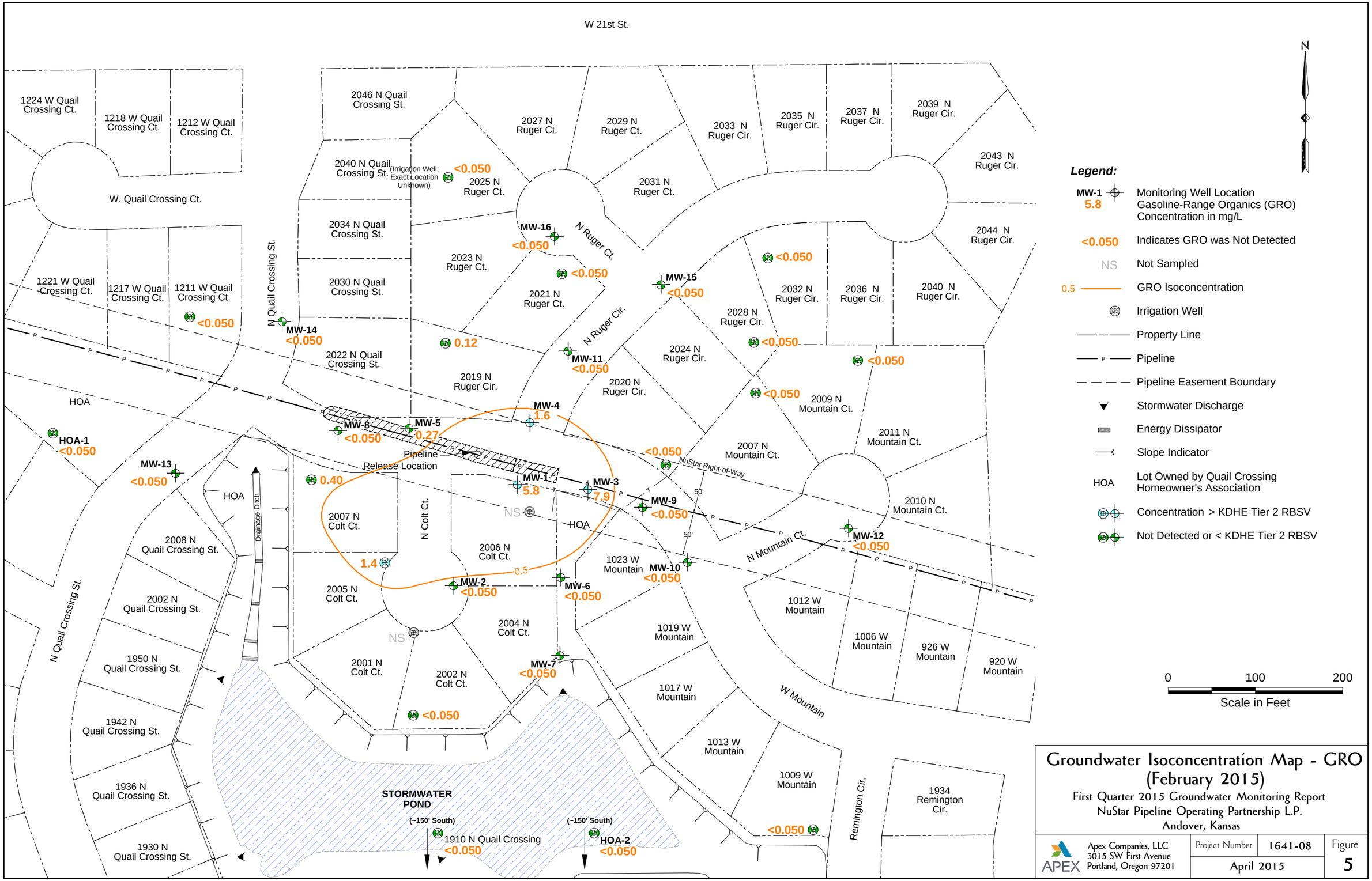


Dissolved-Phase Concentrations in Groundwater (February 2015)

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1641-08	Figure
April 2015		4

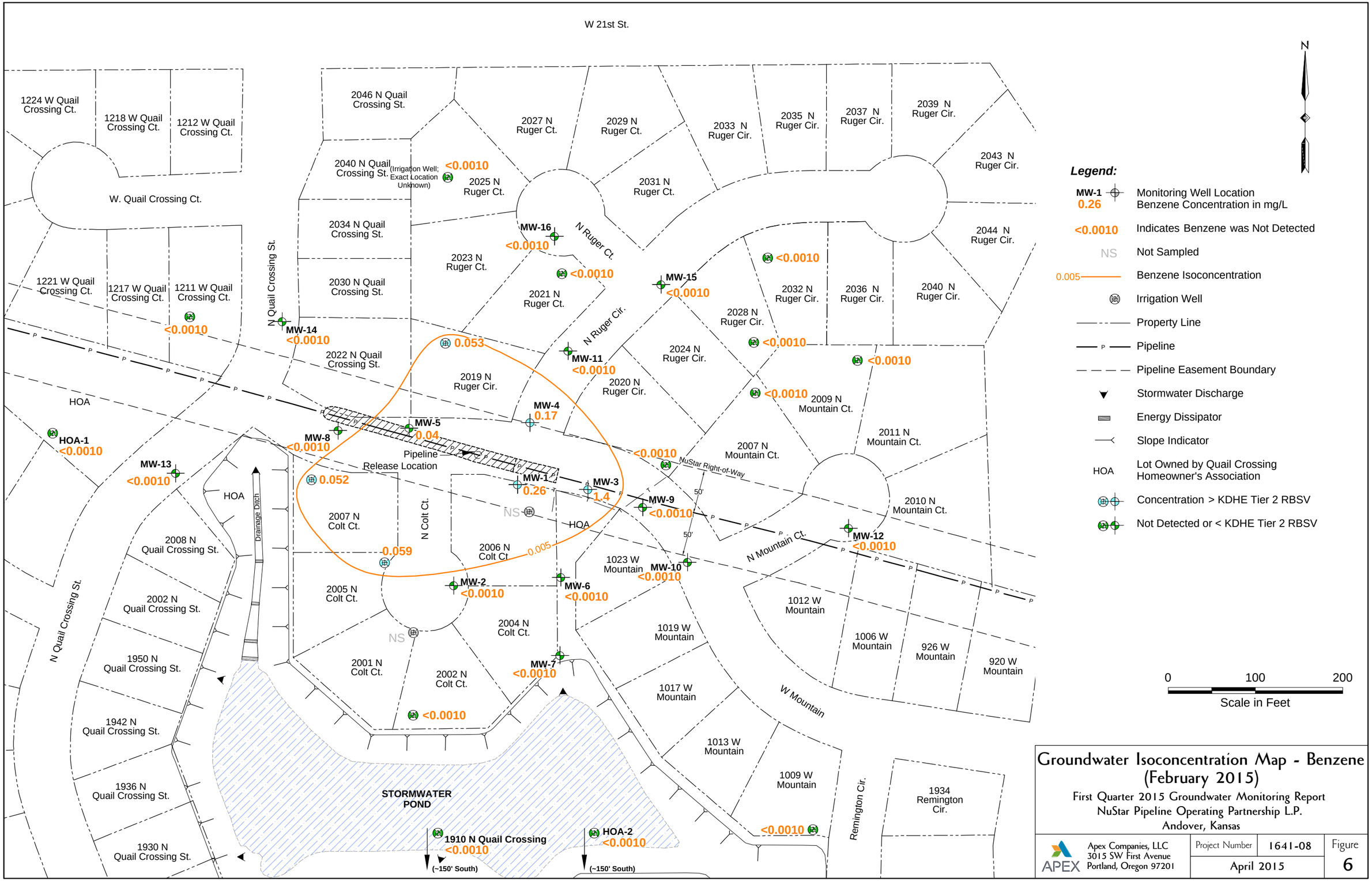


Groundwater Isoconcentration Map - GRO (February 2015)

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1641-08	Figure
April 2015		5

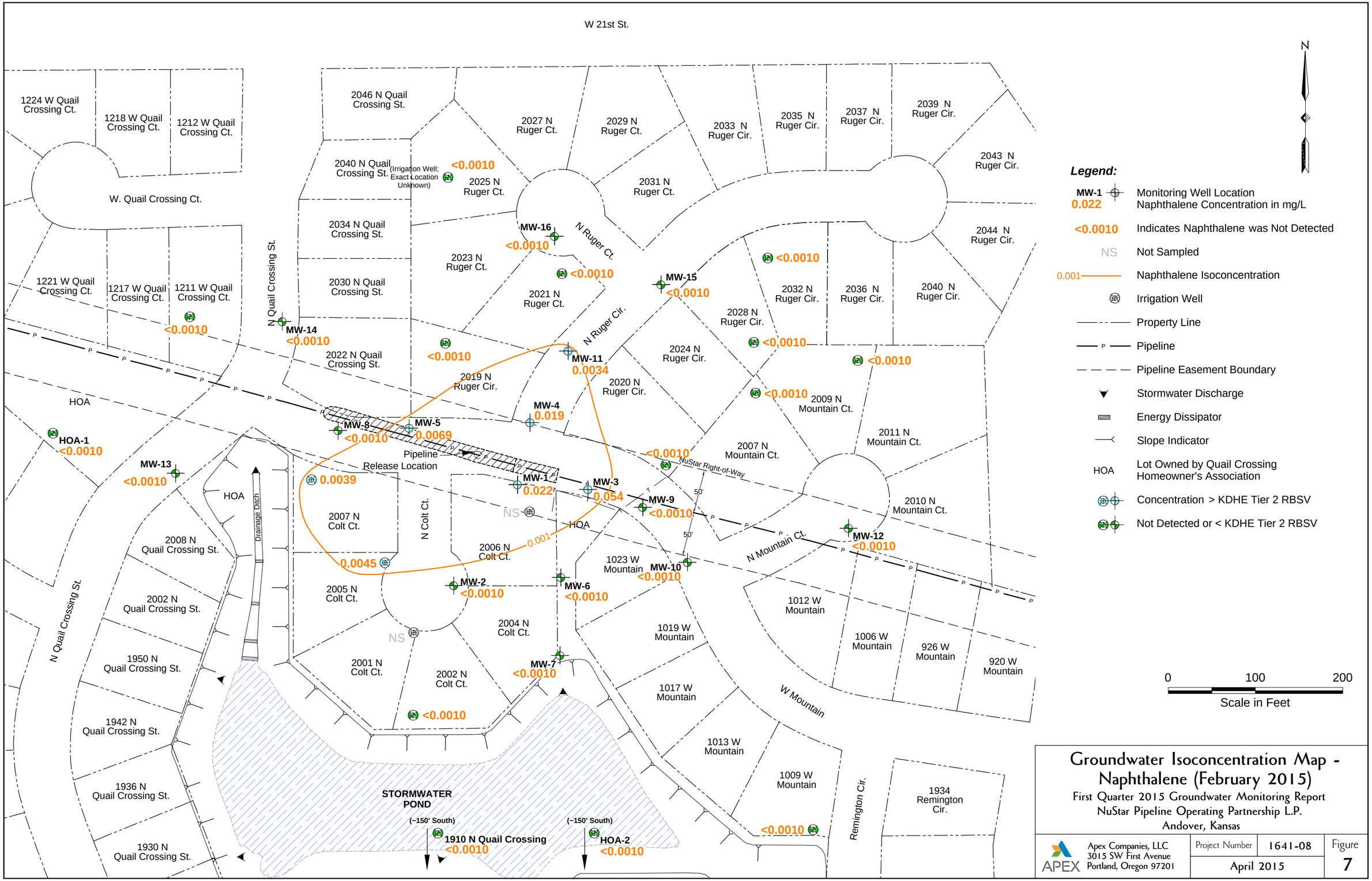


Groundwater Isoconcentration Map - Benzene (February 2015)

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1641-08	Figure
April 2015		6



Groundwater Isoconcentration Map - Naphthalene (February 2015)

First Quarter 2015 Groundwater Monitoring Report
NuStar Pipeline Operating Partnership L.P.
Andover, Kansas

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	1641-08	Figure
April 2015		7

Appendix A

Field Data Sheets

FIELD OBSERVATION FORM

SITE: Colt Court	DATE: 20150107
WEATHER: Windy 14°F	ESTIMATED DURATION OF EVENT: 1/2 day
EVENT TYPE: VAC	PTW #:
FIELD STAFF / COMPANY NAME: P. Ward	APEX

OBJECTIVE OF FIELD WORK: Vac 2006 irrigation Well and MW-1 2 hours each

LIST APPLICABLE SOPs: HASP / SCOPE

WERE SOPs FOLLOWED?	YES	NO	N/A
ARE THE WELLS IN GOOD CONDITION?	YES	NO	N/A
WERE WATER LEVELS CONSISTENT WITH PREVIOUS EVENTS?	YES	NO	N/A
WERE NAPL LEVELS CONSISTENT WITH PREVIOUS EVENTS (if applicable)?	YES	NO	N/A
ARE OFF-SITE ACTIVITIES/RECEPTORS NEAR SITE THE SAME AS DURING PREVIOUS EVENTS?	YES	NO	N/A
NUMBER OF DRUMS ONSITE UPON ARRIVAL: 0 ARE DRUMS LABELED:	YES	NO	N/A

(PROVIDE EXPLANATION BELOW FOR ALL "NO" ANSWERS. ATTACH ADDITIONAL DOCUMENTATION TO FORM IF NECESSARY)

NOTES/COMMENTS:

Monitor wells are covered with ice.

APEX	NuStar Colt Court Air Monitoring					Date	20150107
						Employee	P. Wawrzyn
						Wind Direction	North
						Weather	14°F
Well ID	Time	North	South	East	West	Vacuum Exhaust	Comments
2006	12:30	0	0.2	0	0	538.7	
	13:00	0	0	0	0	671	
	13:30	0	0	0	0	450.1	
MW-1	14:30	0	1.1	0	0	207	
MW-1	15:00	0	0.6	0	0	241	
MW-1	15:30	0	0	0	0	224	

Note: The N, S, E, and W air sample locations are relative of the vac truck location.

WELL GAGING DATA SHEET

APEX

		Job Number:	32000164.06.004
Client:	NUSTAR	Date:	20130107
Project:	Colt Quant	Sampler:	P. Ward
Weather:	140 F	Time In/Out:	11:45

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	11:50	46.75	46.87	—	—	—	START Vac @ 12:00
2006	15:35	46.87	46.88	—	—	—	POST Vac ~ 50 gal
MW-1	13:40	—	31.75	—	—	—	START Vac @ 14:00
MW-1	16:05	—	29.39	—	—	—	POST Vac ~ 50 gal

WELL GAGING DATA SHEET

APEX

		Job Number:	32000164I-06004
Client:	NUSTAR	Date:	1-14-15
Project:	Colt Court	Sampler:	PW RE
Weather:	Sunny 36°F	Time In/Out:	13:35

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	13:23	46.29	46.32	—	—	—	
MW-1	13:10	—	31.44	—	—	—	
MW-2	13:27	—	32.90	—	—	—	
MW-3	13:58	—	41.35	—	—	—	
MW-4	13:43	—	31.52	—	—	—	
MW5	13:30	—	20.56	—	—	—	
MW-6	13:15	—	22.59	—	—	—	
MW-7	13:19	—	16.49	—	—	—	
MW-8	13:32	—	21.64	—	—	—	
MW-9	14:01	CASE	Filled	with	ICE	—	
MW-10	14:06	—	28.45	—	—	—	
MW-11	13:46	—	28.88	—	—	—	
MW-12	14:09	Filled	with	ICE	—	—	
MW-13	13:35	—	33.06	—	—	—	
MW-14	13:40	—	37.51	—	—	—	
MW-15	13:53	Filled	with	ICE	—	—	
MW-16	13:51	CASE	Filled	with	ICE	—	
POND	—	—	—	—	—	—	Frozen & Snow covered

WELL GAGING DATA SHEET

APEX

		Job Number:	32000164106.004
Client:	NuStar	Date:	20150120
Project:	Colt Court	Sampler:	PW / RE
Weather:	Cloudy 49°F	Time In/Out:	13:00

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	13:47	~~46.27~~ PW	46.27	—	—	—	NO product
MW-1	14:03	—	31.45	—	—	—	
MW-2	13:15	—	32.93	—	—	—	
MW-3	~~13:18~~ 13:41	—	41.36	—	—	—	
MW-4	13:31	—	31.55	—	—	—	
MW-5	13:18	—	20.55	—	—	—	
MW-6	13:43	—	22.45	—	—	—	
MW-7	13:45	—	16.55	—	—	—	
MW-8	13:21	—	21.70	—	—	—	
MW-9	CAR	PARKED	OVER	Well	—	—	
MW-10	13:52	—	28.42	—	—	—	
MW-11	13:33	—	28.88	—	—	—	
MW-12	13:55	—	31.04	—	—	—	
MW-13	13:23	—	32.93	—	—	—	
MW-14	13:26	—	33.59	—	—	—	
MW-15	13:59	—	34.93	—	—	—	
MW-16	13:37	—	30.71	—	—	—	
POND	—	—	—	—	—	—	1344.0

NuStar

FIELD OBSERVATION FORM

SITE: Colt Court	DATE: 20150128
WEATHER: Sunny 74°F	ESTIMATED DURATION OF EVENT: 2 hours
EVENT TYPE: Gauging	PTW #:
FIELD STAFF / COMPANY NAME: Paul Ward / APEX	

OBJECTIVE OF FIELD WORK: Gauge monitor wells & 2006 Colt Court Irrigation well

LIST APPLICABLE SOPs: HASP/SCOPE

WERE SOPs FOLLOWED?	YES	NO	N/A
ARE THE WELLS IN GOOD CONDITION?	YES	NO	N/A
WERE WATER LEVELS CONSISTENT WITH PREVIOUS EVENTS?	YES	NO	N/A
WERE NAPL LEVELS CONSISTENT WITH PREVIOUS EVENTS (if applicable)?	YES	NO	N/A
ARE OFF-SITE ACTIVITIES/RECEPTORS NEAR SITE THE SAME AS DURING PREVIOUS EVENTS?	YES	NO	N/A

NUMBER OF DRUMS ONSITE UPON ARRIVAL: Ø ARE DRUMS LABELED: YES NO N/A

(PROVIDE EXPLANATION BELOW FOR ALL "NO" ANSWERS. ATTACH ADDITIONAL DOCUMENTATION TO FORM IF NECESSARY)

NOTES/COMMENTS:

Revised: 11/09/2010

WELL GAGING DATA SHEET

APEX

		Job Number:	32002641-08.004
Client:	NUSTAR	Date:	20180128
Project:	Cold Creek	Sampler:	S. Wong
Weather:	Sunny 74°F	Time In/Out:	15:00

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2002	15:53	47.27	47.34	—	—	—	
MW-1	15:50	—	31.42	—	—	—	
MW-2	15:34	—	32.89	—	—	—	
MW-3	15:56	—	42.22	—	—	—	
MW-4	15:38	—	31.66	—	—	—	
MW-5	15:31	—	20.58	—	—	—	
MW-6	15:59	—	22.54	—	—	—	
MW-7	16:04	—	16.56	—	—	—	
MW-8	15:28	—	21.72	—	—	—	
MW-9	16:08	—	31.31	—	—	—	
MW-10	16:12	—	28.44	—	—	—	
MW-11	15:41	—	28.97	—	—	—	
MW-12	16:15	—	31.05	—	—	—	
MW-13	15:20	—	32.85	—	—	—	
MW-14	15:24	—	33.65	—	—	—	
MW-15	15:47	—	34.98	—	—	—	
MW-16	15:44	—	20.13	—	—	—	
~~MW-PW10~~	—	—	—	—	—	—	1343.80

WELL GAGING DATA SHEET

APEX

		Job Number:	320001641-08,004
Client:	NUSTAR	Date:	20150204
Project:	Colt Court	Sampler:	[illegible]
Weather:	Cloudy 31°F	Time In/Out:	09:30

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	10:55	45.84	45.92	—	—	—	
MW-1	10:50	—	31.44	—	—	—	
MW-2	10:20	—	32.92	—	—	—	
MW-3	11:01	—	41.12	—	—	—	
MW-4	10:27	—	31.70	—	—	—	
MW-5	10:15	—	20.69	—	—	—	
MW-6	11:06	—	22.59	—	—	—	
MW-7	11:10	—	16.56	—	—	—	
MW-8	10:12	—	21.92	—	—	—	
MW-9	11:18	—	31.90	—	—	—	
MW-10	11:24	—	28.49	—	—	—	
MW-11	10:31	—	28.94	—	—	—	
MW-12	11:28	—	31.07	—	—	—	
MW-13	10:09	—	33.07	—	—	—	
MW-14	10:05	—	33.80	—	—	—	
MW-15	10:35	—	35.12	—	—	—	
MW-16	10:43	—	30.76	—	—	—	
TOND	—	—	—	—	—	—	1344.15

NuStar

FIELD OBSERVATION FORM

SITE: Andover / Colt Court	DATE: 20150209
WEATHER: Cloudy	ESTIMATED DURATION OF EVENT: 5 days
EVENT TYPE: VAC / GAUGE / Sampling	PTW #:
FIELD STAFF / COMPANY NAME: Paul Wadell, Tyler Zachary / APEX	

OBJECTIVE OF FIELD WORK: VAC 2006, 2005, and MW-1. Sample monitor wells and Irrigation wells

LIST APPLICABLE SOPs: HASP / SCOPE

WERE SOPs FOLLOWED?	YES	NO	N/A
ARE THE WELLS IN GOOD CONDITION?	YES	NO	N/A
WERE WATER LEVELS CONSISTENT WITH PREVIOUS EVENTS?	YES	NO	N/A
WERE NAPL LEVELS CONSISTENT WITH PREVIOUS EVENTS (if applicable)?	YES	NO	N/A
ARE OFF-SITE ACTIVITIES/RECEPTORS NEAR SITE THE SAME AS DURING PREVIOUS EVENTS?	YES	NO	N/A
NUMBER OF DRUMS ONSITE UPON ARRIVAL: 0 ARE DRUMS LABELED:	YES	NO	N/A

(PROVIDE EXPLANATION BELOW FOR ALL "NO" ANSWERS. ATTACH ADDITIONAL DOCUMENTATION TO FORM IF NECESSARY)

NOTES/COMMENTS:

Took duplicates from 2020 N. Ruger and HOA-1

1910 N. Quail has sold. Collected sample but will need homeowner permission for next event. They had not moved in yet.

Installed skimmer in 2006. Checked next day. Seemed to be skimming.

Revised: 11/09/2010

WELL GAGING DATA SHEET

APEX

		Job Number:	32000/641-08004
Client:	NUSTAR	Date:	20150209
Project:	Colt Court	Sampler:	Rwand/T. Zachary
Weather:	Cloudy	Time In/Out:	11:30 -

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	14:25	45.55	45.59	—	—	—	Post Vac
MW-1	14:10	—	31.62	—	—	—	START Vac @ 14:15
2005	08:30	—	—	—	—	—	Vac 2 hours. 2-10-15
MW-1	16:20	—	31.04	—	—	—	Post Vac
MW-2	14:14	—	33.15				
MW-3	14:55	—	40.60	—	—	—	
MW-4	14:39	—	31.75	—	—	—	
MW-5	14:35	—	20.58	—	—	—	
MW-6	14:59	—	22.77	—	—	—	
MW-7	15:04	—	16.58	—	—	—	
MW-8	14:29	—	21.88	—	—	—	
MW-9	15:11	—	31.78	—	—	—	
MW-10	15:16	—	28.54	—	—	—	
MW-11	14:44	—	29.26	—	—	—	
MW-12	15:21	—	31.06	—	—	—	
MW-13	14:19	—	32.81	—	—	—	
MW-14	14:24	—	34.00	—	—	—	
MW-15	14:51	—	35.02	—	—	—	
MW-16	14:48	—	31.09	—	—	—	
POND	—	—	—	—	—	—	1344.10

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-2	Job Number:	32000164I-08.004
Client:	NUSTAR	Date:	20150210
Project:	Colt Court	Sampler:	PW
Weather:	Fog 37°F	Time In/Out:	10:15

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	33.15	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	37'
Sampling Method:	Same	Tubing Type:	Poly

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (mL/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
10:24	500	500	33.23	250	5.49	14.07	.862	3.89	137.0	—	C
10:27	750	1250	33.43	250	5.63	14.81	.813	3.30	133.6	—	C
10:31	750	2000	33.54	250	5.70	14.90	.815	3.24	13[illegible].2	—	C
10:34	750	2750	33.65	250	5.77	14.90	.816	3.16	12[illegible].5	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-2	Sampling Flow Rate	250mL/min	Analytical Laboratory:		MS	
Sample Time:	10:37	Final Depth to Water:	33.93	Did Well Dewater?		No	
# Containers/Type	Preservative	Analysis/Method	Field Filtered		Filter Size	MS/MSD	Duplicate ID
6. VOA	HCL	VOH / VOC	yes	(no)			DUP-1
			yes	no			
			yes	no			
			yes	no			
			yes	no			
			yes	no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-13	Job Number:	32000641-08.004
Client:	NNSTAR	Date:	2-10-15
Project:	Colt Creek	Sampler:	PJ
Weather:	Sunny	Time In/Out:	10:50

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	32.81	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~37'	Comments
Sampling Method:	Same	Tubing Type:	poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
11:06	500	500	33.24	250	6.27	15.11	.764	11.09	113.1	—	CL
11:09	750	1250	33.51	250	6.25	15.78	.761	5.10	110.1	—	CL
11:12	750	2000	33.64	250	6.25	15.71	.761	4.98	109.8	—	CL
11:15	750	2750	33.85	250	6.25	15.74	.759	4.85	110.1	—	CL

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-13	Sampling Flow Rate	250 mL/m	Analytical Laboratory:	ALS
Sample Time:	11:19	Final Depth to Water:	34.13	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-8	Job Number:	320001641-08 BOY
Client:	NUSTAR	Date:	2-10-15
Project:	Salt Creek	Sampler:	JW
Weather:	Sunny	Time In/Out:	11:30

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	21.88	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~26'	Comments	
Sampling Method:	Same	Tubing Type:	poly		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (mL/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
11:40	750	750	22.21	250	6.49	16.47	1.045	12.70	107.5	—	CL
11:43	750	1500	22.31	250	6.47	16.72	1.114	3.18	110.4	—	CL
11:46	750	2250	22.40	250	6.45	16.73	1.157	2.74	105.0	—	SC
11:49	750	3000	22.49	250	6.44	16.84	1.174	2.62	101.3	—	SC
11:52	750	3750	22.51	250	6.44	16.90	1.178	2.66	99.5	—	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-8	Sampling Flow Rate	250 mL/min	Analytical Laboratory:	ALS
Sample Time:	11:58	Final Depth to Water:	22.63	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-5	Job Number:	320001641-08.004
Client:	NUSTAR	Date:	2-10-15
Project:	COLT COUNT	Sampler:	AD
Weather:	SUNNY	Time In/Out:	12:04

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	20.58	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~26	Comments	
Sampling Method:	Same	Tubing Type:	Poly		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
12:11	750	750	20.70	250	6.52	15.63	1.411	1.38	109.1	—	AC
12:14	750	1500	20.80	250	6.51	15.93	1.424	0.78	94.2	—	AC
12:17	750	2250	20.92	250	6.49	15.97	1.439	1.23	95.7	—	AC
12:20	750	3000	21.02	250	6.48	16.00	1.442	1.37	96.4	—	AC
12:23	750	3750	21.11	250	6.47	15.98	1.444	1.38	93.0	—	AC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-5	Sampling Flow Rate	250	Analytical Laboratory:	ARS
Sample Time:	12:28	Final Depth to Water:	21.15	Did Well Dewater?	ND

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	Col Col	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-4	Job Number:	320001641-08.004
Client:	NUSTAR	Date:	2-10-15
Project:	Colt Court	Sampler:	DW
Weather:	Sunny	Time In/Out:	12:35

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	31.75	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~36
Sampling Method:	SAME	Tubing Type:	poly

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
12:49	750	750	32.85	250	6.67	17.38	1.058	3.20	-26.2	—	AC
12:53	750	1500	32.00	250	6.58	16.34	1.043	0.91	-52.2	—	~~VC~~ CL
12:56	750	2250	32.16	250	6.56	16.32	1.044	0.97	-58.4	—	CL
12:59	750	3000	32.33	250	6.54	16.62	1.044	1.07	-47.6	—	CL

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-4	Sampling Flow Rate	250 ml/m	Analytical Laboratory:	ACS
Sample Time:	13:04	Final Depth to Water:	32.55	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6-VOA	HCL	Sec 60	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-11	Job Number:	32000164I-08.001
Client:	NUSTAR	Date:	2-10-15
Project:	Gulf Coast	Sampler:	PW
Weather:	Sunny	Time In/Out:	13:10

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	29.26	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Peristaltic	Pump Intake Depth:	~35'	Comments
Sampling Method:	Same	Tubing Type:	Poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
13:19	750	750	29.25	250	6.22	17.00	1.314	5.35	37.5	—	CL
13:22	750	1500	29.70	250	6.65	16.64	1.315	4.22	55.9	—	CL
13:25	750	2250	30.01	250	6.63	16.72	1.314	4.01	69.5	—	CL
13:28	750	3000	30.39	250	6.61	16.66	1.314	4.01	72.2	—	CL

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-11	Sampling Flow Rate	250mL/hr	Analytical Laboratory:	ALS
Sample Time:	13:33	Final Depth to Water:	30.54	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-15	Job Number:	32005164I-08.004
Client:	NUSTAR	Date:	2-10-15
Project:	Colt Court	Sampler:	PW
Weather:	Sunny	Time In/Out:	14:30

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	35.02	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	✓

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~40'	Comments	
Sampling Method:	Same	Tubing Type:	Poly		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (mL/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
14:40	750	750	35.50	250	7.66	17.24	.737	4.29	50.1	—	CL
14:43	750	1500	35.51	250	6.72	17.00	.733	3.98	66.7	—	CL
14:46	750	2250	35.60	250	6.62	16.96	.732	3.84	71.2	—	CL
14:49	750	3000	35.60	250	6.56	16.94	.732	3.79	74.7	—	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-15	Sampling Flow Rate	250mL/m	Analytical Laboratory:	ALS
Sample Time:	14:54	Final Depth to Water:	35.65	Did Well Dewater?	ND

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes ~~no~~			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-16	Job Number:	320001641-08.004
Client:	NUSTAR	Date:	2-10-15
Project:	Colt Court	Sampler:	PW
Weather:	Sunny	Time In/Out:	15:10

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	31.09	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	ND	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~36'	Comments	
Sampling Method:	Same	Tubing Type:	Poly		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
15:25	750	750	31.23	250	6.84	17.32	.939	4.14	90.0	—	SC
15:28	750	1500	31.55	250	6.76	16.83	.968	3.42	94.7	—	SC
15:31	750	2250	31.76	250	6.74	16.52	.947	3.30	95.9	—	SC
15:34	750	3000	32.05	250	6.73	16.70	.924	3.25	97.2	—	SC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-16	Sampling Flow Rate	250 mL/m	Analytical Laboratory:	ALS
Sample Time:	15:40	Final Depth to Water:	32.61	Did Well Dewater?	ND

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-3	Job Number:	320001641-08-004
Client:	NUSTAR	Date:	2-10-15
Project:	Colt Count	Sampler:	PW
Weather:	Sunny	Time In/Out:	15:50

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	40.60	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~45'	Comments	
Sampling Method:	SAME	Tubing Type:	Poly		

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (mL/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
15:57	750	750	40.72	250	6.77	16.92	.943	1.56	-66.6	—	C
16:00	750	1500	40.75	250	6.70	16.32	.944	0.56	-78.4	—	C
16:03	750	2250	40.80	250	6.69	16.18	.945	.77	-83.3	—	C
16:06	750	3000	40.85	250	6.68	16.27	.940	.93	-85.4	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-3	Sampling Flow Rate	250 mL/min	Analytical Laboratory:	ALS
Sample Time:	16:11	Final Depth to Water:	40.93	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	See COC	yes ~~no~~			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Pump intake clogged after filling first VOA. Some VOA's contain sediment/slime.

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-7	Job Number:	32000/1641-08.004
Client:	NUSTAR	Date:	2-11-15
Project:	Colt Court	Sampler:	JW
Weather:	38 °F windy	Time In/Out:	12:30

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	16.58	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Peristaltic	Pump Intake Depth:	~20'	Comments
Sampling Method:	Same	Tubing Type:	poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
12:42	750	750	16.70	250	7.12	13.71	.645	2.02	39.5	—	C
12:45	750	1500	16.93	250	7.00	14.89	.659	0.95	-17.6	—	C
12:48	750	2250	17.03	250	6.95	15.22	.660	.82	-11.4	—	C
12:51	750	3000	17.10	250	6.93	15.25	.662	.80	18.0	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-7	Sampling Flow Rate	250	Analytical Laboratory:	ALS
Sample Time:	12:57	Final Depth to Water:	17.10	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCl	8260	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-6	Job Number:	320001641-08.004
Client:	NUSTAR	Date:	2-11-16
Project:	COLT COURT	Sampler:	PJ
Weather:	38°F Windy	Time In/Out:	17:45

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	22.77	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	27	Comments
Sampling Method:	Same	Tubing Type:	Poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
17:53	750	750	22.91	250	7.13	13.21	.878	5.11	90.6	—	C
17:56	750	1500	23.05	250	7.01	12.61	.899	4.45	94.4	—	C
17:59	750	2250	23.21	250	6.96	13.28	.894	4.13	97.3	—	C
18:02	750	3000	23.42	250	6.93	13.18	.895	4.11	98.6	—	C
18:05	750	3750	23.51	250	6.91	13.07	.893	4.06	100.1	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-6	Sampling Flow Rate	250 mL/m	Analytical Laboratory:	ALS
Sample Time:	18:10	Final Depth to Water:	24.50	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
12 VOA	HCL	8260	yes (no)			DUP-2
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

Time was off by one hour, changed all on this sheet except sample time because was already on labels

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-10	Job Number:	32000164I-08.004
Client:	MUSTAR	Date:	20150211
Project:	COLT COURT	Sampler:	PD
Weather:	Cloudy 38°	Time In/Out:	09:30

WELL DATA

Well Depth:		Well Diameter:	2'	Water Height	—
Depth to Water:	23.54	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~33'
Sampling Method:	Same	Tubing Type:	Poly

Comments

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
09:39	750	750	28.39	250	7.07	14.19	.956	14.72	57.2	—	AC
09:42	750	1500	29.38	250	7.00	14.46	.980	4.06	70.5	—	AC
09:45	750	2250	29.75	250	6.96	14.80	.979	2.41	80.4	—	AC
09:48	750	3000	30.01	250	6.91	13.93	.982	2.00	91.1	—	AC
09:51	750	3750	30.15	250	6.90	13.94	.981	1.71	95.2	—	AC
09:54	750	5000	30.35	250	6.88	13.84	.984	1.67	99.2	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-10	Sampling Flow Rate	250 ml/m	Analytical Laboratory:	ALS
Sample Time:	09:58	Final Depth to Water:	30.73	Did Well Dewater?	ND

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	8260	yes no			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-9	Job Number:	32000164I-08.DOT
Client:	NUSTAR	Date:	20150211
Project:	Colt Court	Sampler:	AW
Weather:	Cloudy 38°F	Time In/Out:	08:30

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	31.78	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	PNEUMATIC	Pump Intake Depth:	~37'	Comments
Sampling Method:	SAME	Tubing Type:	POLY	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
0845	750	750	32.05	250	7.15	14.10	.906	3.61	64.4	—	
08:48	750	1500	32.43	250	7.12	14.88	.895	3.22	76.7	—	
08:51	750	2250	32.66	250	7.08	14.94	.855	3.19	84.9	—	
08:54	750	3000	32.95	250	7.05	15.06	.884	3.13	91.2	—	

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-9	Sampling Flow Rate	250 ml/m	Analytical Laboratory:	ACS
Sample Time:	09:59	Final Depth to Water:	31.13	Did Well Dewater?	No

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
6 VOA	HCL	CCL Cor	yes (no)			
			yes no			
			yes no			
			yes no			
			yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-14	Job Number:	32000164/-08.004
Client:	NUSTAR	Date:	20150212
Project:	Colt Court	Sampler:	PW
Weather:	Sunny 31°F	Time In/Out:	12:57

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	34.00	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~38'	Comments
Sampling Method:	Same	Tubing Type:	Poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
12:20	750	750	34.08	250	7.70	13.60	.677	10.50	52.3	—	C
12:23	750	1500	34.32	250	6.86	14.44	.684	4.49	87.6	—	C
12:26	750	2250	34.51	250	6.79	14.58	.687	4.26	91.5	—	C
12:29	750	3000	34.72	250	6.73	14.50	.687	4.17	93.9	—	C

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-14	Sampling Flow Rate	250 mL/m	Analytical Laboratory:	ALS
Sample Time:	12:35	Final Depth to Water:	35.99	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
250 mL 1	NEAT	SW8260	yes no		yes	—
VOA 13	HCL	SW8260	yes no			
250 mL 1	H2SO4	SW8270	yes no			
250 mL 1	HNO3	SW6020	yes no			
VOA 2	H2SO4	SW8260	yes no			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-1	Job Number:	320001641-08.004
Client:	NUSTAR	Date:	2-12-15
Project:	Cort Court	Sampler:	[illegible]
Weather:	Sunny 32°C	Time In/Out:	12:50

WELL DATA

Well Depth:		Well Diameter:	4"	Water Height	—
Depth to Water:	31.62	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~37'	Comments
Sampling Method:	Sample	Tubing Type:	Poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (mL/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
13:10	750	750	31.53	250	6.84	11.30	1.226	8.93	-53.6	—	AC
13:13	750	1500	31.61	250	6.84	11.95	1.245	2.39	-54.5	—	AC
13:16	750	2250	31.69	250	6.80	11.25	1.260 ~~1.77~~	1.77	-54.6	—	AC
13:19	750	3000	31.76	250	6.79	11.68	1.246	1.59	-56.4	—	AC
13:22	750	3750	31.85	250	6.77	11.33	1.250	1.43	-56.7	—	AC

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-1	Sampling Flow Rate	250 ml/m	Analytical Laboratory:	ALS
Sample Time:	13:30	Final Depth to Water:	32.44	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
250mL NRAT 2	NEAT	See COC	yes (no)		yes	—
VOA 10	HCl		yes (no)			
250mL 1	H2SO4		yes (no)			
250 mL 1	HNO3		yes (no)			
VOA 2	H2SO4		yes (no)			
			yes no			

COMMENTS

WELL MONITORING DATA SHEET

APEX

Well I.D.	MW-12	Job Number:	32000164-08.004
Client:	MASTAN	Date:	2-12-15
Project:	Cost Count	Sampler:	PN
Weather:	Sunny 32°F	Time In/Out:	13:45

WELL DATA

Well Depth:		Well Diameter:	2"	Water Height	—
Depth to Water:	31.06	Screened Interval:		x Multiplier	—
Water Column Length:	—	Depth to Free Product:	NA	x Casing Volumes	—
Purge Volume:	—	Free Product Thickness:	NA	= Purge Volume	—
Water Height Multipliers (gal)	1-inch = 0.041	2-inch = 0.162	4-inch = 0.653	1 gallon = 3.785 liters	—

PURGING DATA

Purge Method:	Pneumatic	Pump Intake Depth:	~75'	Comments
Sampling Method:	Same	Tubing Type:	Poly	

Time	Volume Purged (liters)	Cumulative Volume Purged (liters)	DTW (btc)	Purge Rate (L/min)	pH	Temp (°C)	Cond (µS/cm)	DO (ppm)	ORP (mV)	Turbidity (NTUs)	Clarity/Color Other Remarks
					+/-0.1	+/-0.5° C	+/-5%	+/- 0.5 ppm	+/-20mV	+/-10%	<-- Stabilization Criteria
13:53	750	750	31.10	250	6.92	13.49	.895	2.75	35.7	—	CL
13:56	750	1500	31.10	250	6.83	13.79	.905	1.44	41.5	—	CL
13:59	750	2250	31.10	250	6.79	14.72	.905	1.26	43.5	—	CL
14:02	750	3000	31.10	250	6.78	15.27	.903	1.13	44.5	—	CL
14:05	750	3750	31.10	250	6.78	15.09	.906	1.11	45.3	—	CL

Clarity: VC = very cloudy, Cl = Cloudy, SC = slightly cloudy, AC = almost clear, C = clear

SAMPLING DATA

Sample ID:	MW-12	Sampling Flow Rate	250 ml/m	Analytical Laboratory:	ALS
Sample Time:	14:15	Final Depth to Water:	31.10	Did Well Dewater?	NO

# Containers/Type	Preservative	Analysis/Method	Field Filtered	Filter Size	MS/MSD	Duplicate ID
250ml 2	NEAT	See COC	yes (no)		yes	
VOA 10	HCL		yes (no)			
250ml 1	H2SO4		yes (no)			
250ml 1	HNO3		yes (no)			
VOA 2	HCSO4		yes (no)			
			yes no			

COMMENTS

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Chain of Custody Form

Page 2 of 2

COC ID: 117515

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South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

ALS Project Manager:

ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	HOA 1	2-12-15	10:05	water	HCL	6	X	X									
2	HOA 2	2-12-15	10:27														
3	1910 N. QUAY	2-12-15	10:40														
4	2002 N Colt CT.	2-12-15	11:25														
5	2005 N Colt CT.	2-12-15	11:37														
6	2007 N. Colt CT.	2-12-15	11:50														
7	DUP 1	—	—														
8	DUP 2	—	—	water	HCL	6	X	X									
9		NOTHING	FOLLOWS														
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
	20150212	1600	
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Colt Court 3Q 2014 GW Mon Wells

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
- [X] Level 2 Std QC
- [ ] Level 3 Std QC/Raw da
- [ ] Level 4 SW846/CLP
- [ ] Other/EDD
- [ ] TRRP ChkList
- [ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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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Chain of Custody Form

Page 1 of 1

COC ID: 117518

ALS Project Manager:

ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Andover Release Site	A	300-Sulfate, ortho-phos, and Nitrate (short hold)
Work Order		Project Number	E3CE-0065	B	RSK175-methane
Company Name	Apex Companies	Bill To Company	Apex Companies	C	6020-Potassium only
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	Ammonia-4500
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	6020-Dissolved Iron-Lab filtered
				F	TOC
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	VOC's (8260) Colt Court GW List
Phone	(503) 924-4704	Phone	(503) 924-4704	H	GRO - VPH - DA - 1
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-14	2-12	12:35	Water	HCL HNO3 H2SO4	15	X	X	X	X	X	X	X	X			
2	MW-1	2-12	13:30	|	|	|	|	|	|	|	|	|	|	|			
3	MW-12	2.2	14:15	|	|	|	X	X	X	X	X	X	X	X			
4	Nothing follows																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method:

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Paul Ward	20150212	16:00	
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Andover 3Q GWM-MNA

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
- [X] Level 2 Std QC
- [ ] Level 3 Std QC/Raw da
- [ ] Level 4 SW846/CLP
- [ ] Other/EDD
- [ ] TRRP ChkList
- [ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
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Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

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COC ID: 117511

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-2	2-10-15	10:37	Water	HCL	6	X	X									
2	MW-13	2-10-15	11:19	Water	HCL	6	X	X									
3	MW-8	2-10-15	11:58	Water	HCL	6	X	X									
4	MW-5	2-10-15	12:28	Water	HCL	6	X	X									
5	MW-4	2-10-15	13:04	Water	HCL	6	X	X									
6	MW-11	2-10-15	13:33	Water	HCL	6	X	X									
7	MW-15	2-10-15	14:54	Water	HCL	6	X	X									
8	MW-16	2-10-15	15:40	Water	HCL	6	X	X									
9	MW-3	2-10-15	16:11	Water	HCL	6	X	X									
10	MW-9	2-11-15	08:59	Water	HCL	6	X	X									

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std. 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Paul Ward	20150217	16:00	
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Colt Court 3Q 2014 GW Mon Wells

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row da
[ ] Level 4 SW846/CLP
[ ] Other/EDD
[ ] TRRP ChkList
[ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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COC ID: 117513

Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

ALS Project Manager:

ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-10	2-11-15	09:58	water	HCL	6	X	X									
2	MW-6	2-11-15	12:10	water	HCL	6	X	X									
3	MW-7	2-11-15	12:57	water	HCL	6	X	X									
4	DUP 1	—	—	water	HCL	6	X	X									
5	DUP 2	—	—	water	HCL	6	X	X									
6	NOTHING FOLLOWS																
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FED EX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Paul Ward	20150212	16:00	
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Colt Court 3Q 2014 GW Mon Wells

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

- [X] Level 2 Std QC
- [ ] Level 3 Std QC/Row da
- [ ] Level 4 SW846/CLP
- [ ] Other/EDD
- [ ] TRRP ChkList
- [ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	1009 W. Mountain	2-11-15	13:45	water	HCL	6	X	X									
2	2009 N. Mountain	2-11-15	14:00														
3	2007 N mountain	2-11-15	14:10														
4	2020 N Ruger CR	2-11-15	14:30														
5	2019 N Ruger CR	2-11-15	14:40														
6	2028 N Ruger CR	2-11-15	14:50														
7	2032 N Ruger CR	2-11-15	15:02														
8	2025 N Ruger CT	2-11-15	15:14														
9	2021 N Ruger CT	2-11-15	1532														
10	1211 W. Quail	2-12-15	09:46				X	X									

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date: 20150212	Time: 16:00	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Colt Court 30 2014 GW Mon Wells

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
- [X] Level 2 Std QC
- [ ] Level 3 Std QC/Raw da
- [ ] Level 4 SW846/CLP
- [ ] Other/EDD
- [ ] TRRP ChkList
- [ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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FedEx Express Package US Airbill

FedEx Tracking Number 8033 8132 0687

1 From *Please print and press hard.*

Date 2-12-15 Sender's FedEx Account Number SENDER'S FEDEX ACCOUNT NUMBER ONLY

Sender's Name Paul Ward Phone (916) 613-7660

Company APEX

Address 4608 South Garnett STE 100 Dept./Floor/Suite/Room

City TULSA State OK ZIP 74146

2 Your Internal Billing Reference First 24 characters will appear on invoice. OPTIONAL

3 To Recipient's Name Phone ( )

Company ALS LABORATORY GROUP

Address 10450 STANCLIFF RD STE 210 Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.

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

City HOUSTON State TX ZIP 77099-4338

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

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

0108858077

FedEx at your fingertips. Good call.
Go to fedex.com/mobilesolutions

Form ID No. 0215

MUR4

Sender's Copy

4 Express Package Service *To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available.
- [x] FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx Express Saver Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [ ] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [x] No Signature Required Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

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

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

- [ ] Cargo Aircraft Only

7 Payment *Bill to:*

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

- [ ] Sender Acct. No. in Section 1 will be billed.
- [x] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. Credit Card No. 2470-7613-1 Exp. Date

Total Packages 5 Total Weight 155 lbs. Total Declared Value† $ ____ .00

†Our liability is limited to US$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

611

Rev. Date 2/12 • Part #163134 • ©1994–2012 FedEx • PRINTED IN U.S.A. SRS

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

FedEx Office

7701 E KELLOGG DR
Wichita, KS 67207

Location:	RSLKK
Device ID:	RSLKK-POS2
Employee:	2276270
Transaction:	850119695164

PRIORITY OVERNIGHT

803381320687 154.55 lb (S) ***
780205693111
780205693122
780205693133
780205693144

Scheduled Delivery Date 02/13/2015

Bill Recipient/Third Party

*** See payer invoice

M = Weight entered manually
S = Weight read from scale
T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final.

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Or call 1.800.GoFedEx
1.800.463.3339

February 12, 2015 4:15:50 PM

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& receive a discount on your next order!
fedex.com/welisten or 800-398-0242
Redemption Code: _____

*** Thank you ***

WELL GAGING DATA SHEET

APEX

		Job Number:	32000441-08.003
Client:	Nixon	Date:	20150218
Project:	Antioch / Coltcart	Sampler:	
Weather:	Cloudy	Time In/Out:	

WATER LEVEL DATA

Well I.D.	Time	Depth to Free Product (feet)	Depth to Water (feet)	Depth to Well Bottom (feet)	Product Thickness (feet)	Water Column Height (feet)	Notes/Other Remarks
2006	15:49	—	45.55	—	—	—	
MW-18	16:05	—	27.93	41.09	—	—	16:09 Began Development
MW-18	16:20	—	—	—	—	—	16:20 Dry
MW-19	16:30	—	35.19	42.85	—	—	16:32 Began Development
MW-19	16:33	Water	Clear.	16:34 Back to Cloudy			dry at 16:35
03-19 MW-11	13:56	—	29.84	—	—	—	
MW-14	14:07	—	33.94	—	—	—	
MW-13	14:14	—	33.16	—	—	—	
MW-8	14:17	—	21.96	—	—	—	
MW-5	14:19	—	20.80	—	—	—	
MW-2	14:22	—	32.87	—	—	—	
MW3	14:25	—	41.02	—	—	—	
MW-6	14:28	—	22.62	—	—	—	
MW-7	14:31	—	16.63	—	—	—	
Pond	14:33	—	—	—	—	—	1343.6
MW9	14:36	—	31.59	—	—	—	
MW-10	14:39	—	28.42	—	—	—	
MW12	14:42	—	30.95	—	—	—	
MW-4	14:45	—	31.22	—	—	—	
16 MW-16	14:48	—	31.80	—	—	—	
MW-15	1454	—	35.04	—	—	—	
3-20 MW-1	1055	—	31.38	—	—	—	

Appendix B

Historical Groundwater Elevations and SPH Removal Data

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	8/8/2013					24.64	--	--	1327.49
	8/13/2013					24.36	--	--	1327.77
	8/21/2013					23.79	--	--	1328.34
	8/28/2013					25.21	--	--	1326.92
	9/5/2013					27.19	--	--	1324.94
	9/11/2013					25.93	--	--	1326.20
	9/17/2013					25.92	--	--	1326.21
	9/23/2013					28.49	--	--	1323.64
	9/30/2013					23.00	--	--	1329.13
	10/10/2013					25.28	--	--	1326.85
	10/17/2013					26.21	--	--	1325.92
	10/23/2013					23.55	--	--	1328.58
	10/31/2013					24.28	--	--	1327.85
	11/6/2013					NM	--	--	NM
	11/13/2013					23.04	--	--	1329.09
	11/20/2013					22.84	--	--	1329.29
	11/26/2013					24.88	--	--	1327.25
	12/3/2013					30.19	--	--	1321.94
	12/11/2013					31.12	--	--	1321.01
	12/19/2013					31.38	--	--	1320.75
	12/27/2013					31.50	--	--	1320.63
	1/3/2014					NM	--	--	NM
	1/10/2014					31.41	--	--	1320.72
MW-1	1/16/2014	4.0	1352.13	35.0	20-35	31.01	--	--	1321.12
	1/21/2014					31.31	--	--	1320.82
	1/27/2014					30.78	--	--	1321.35
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.75	--	--	1320.38
	2/26/2014					31.70	--	--	1320.43
	3/4/2014					31.62	--	--	1320.51
	3/13/2014					31.44	--	--	1320.69
	3/18/2014					31.41	--	--	1320.72
	3/27/2014					31.55	--	--	1320.58
	4/3/2014					31.69	--	--	1320.44
	4/7/2014					31.44	--	--	1320.69
	4/17/2014					31.44	--	--	1320.69
	4/22/2014					31.45	--	--	1320.68
	4/29/2014					31.80	--	--	1320.33
	5/8/2014					31.75	--	--	1320.38
	5/13/2014					31.49	--	--	1320.64
	5/20/2014					31.50	--	--	1320.63
	5/29/2014					30.49	--	--	1321.64
	6/3/2014					31.64	--	--	1320.49
	6/10/2014					31.65	--	--	1320.48
	6/18/2014					31.50	--	--	1320.63
	6/24/2014					31.15	--	--	1320.98

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-1 (cont.)	7/1/2014	4.0	1352.13	35.0	20-35	31.66	--	--	1320.47
	7/10/2014					31.79	--	--	1320.34
	7/15/2014					31.82	--	--	1320.31
	7/22/2014					31.31	--	--	1320.82
	7/31/2014					31.65	--	--	1320.48
	8/5/2014					31.78	--	--	1320.35
	8/14/2014					31.73	--	--	1320.40
	8/20/2014					31.68	--	--	1320.45
	8/26/2014					31.79	--	--	1320.34
	9/3/2014					31.79	--	--	1320.34
	9/10/2014					31.71	--	--	1320.42
	9/17/2014					31.72	--	--	1320.41
	9/24/2014					31.75	--	--	1320.38
	10/1/2014					31.65	--	--	1320.48
	10/8/2014					31.89	--	--	1320.24
	10/16/2014					29.99	--	--	1322.14
	10/21/2014					31.35	--	--	1320.78
	10/28/2014					31.39	--	--	1320.74
	11/4/2014					31.72	--	--	1320.41
	11/11/2014					31.71	--	--	1320.42
	11/18/2014					31.71	--	--	1320.42
	11/25/2014					31.44	--	--	1320.69
	12/3/2014					31.67	--	--	1320.46
	12/9/2014					31.48	--	--	1320.65
	12/17/2014					31.77	--	--	1320.36
	12/23/2014					31.81	--	--	1320.32
	12/31/2014					31.44	--	--	1320.69
	1/7/2015					31.75	--	--	1320.38
	1/14/2015					31.44	--	--	1320.69
	1/20/2015					31.45	--	--	1320.68
	1/28/2015					31.42	--	--	1320.71
	2/4/2015					31.44	--	--	1320.69
	2/9/2015					31.62	--	--	1320.51
MW-2	8/8/2013	2.0	1353.17	44	29-44	31.93	--	--	1321.24
	8/13/2013					31.27	--	--	1321.90
	8/21/2013					30.85	--	--	1322.32
	8/28/2013					31.45	--	--	1321.72
	9/5/2013					31.45	--	--	1321.72
	9/11/2013					32.18	--	--	1320.99
	9/17/2013					32.10	--	--	1321.07
	9/23/2013					31.66	--	--	1321.51
	9/30/2013					32.55	--	--	1320.62
	10/10/2013					29.11	--	--	1324.06
	10/17/2013					31.91	--	--	1321.26
	10/23/2013					32.47	--	--	1320.70
	10/31/2013					32.19	--	--	1320.98
	11/6/2013					31.46	--	--	1321.71
	11/13/2013					31.96	--	--	1321.21
	11/20/2013					31.19	--	--	1321.98
	11/26/2013					31.38	--	--	1321.79
	12/3/2013					30.94	--	--	1322.23
	12/11/2013					NM	--	--	NM
	12/19/2013					31.45	--	--	1321.72
	12/27/2013					NM	--	--	NM

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-2 (cont.)	1/3/2014	2.0	1353.17	44	29-44	NM	--	--	NM
	1/10/2014					NM	--	--	NM
	1/16/2014					31.21	--	--	1321.96
	1/21/2014					31.49	--	--	1321.68
	1/27/2014					31.90	--	--	1321.27
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					32.06	--	--	1321.11
	2/26/2014					31.96	--	--	1321.21
	3/4/2014					32.41	--	--	1320.76
	3/13/2014					32.09	--	--	1321.08
	3/18/2014					31.86	--	--	1321.31
	3/27/2014					32.09	--	--	1321.08
	4/3/2014					32.16	--	--	1321.01
	4/7/2014					32.53	--	--	1320.64
	4/17/2014					32.73	--	--	1320.44
	4/22/2014					32.99	--	--	1320.18
	4/29/2014					33.08	--	--	1320.09
	5/8/2014					33.06	--	--	1320.11
	5/13/2014					33.90	--	--	1319.27
	5/20/2014					33.77	--	--	1319.40
	5/29/2014					33.15	--	--	1320.02
	6/3/2014					33.64	--	--	1319.53
	6/10/2014					33.00	--	--	1320.17
	6/18/2014					32.56	--	--	1320.61
	6/24/2014					31.89	--	--	1321.28
	7/1/2014					32.31	--	--	1320.86
	7/10/2014					31.60	--	--	1321.57
	7/15/2014					31.86	--	--	1321.31
	7/22/2014					32.41	--	--	1320.76
	7/31/2014					31.91	--	--	1321.26
	8/5/2014					32.25	--	--	1320.92
	8/14/2014					32.88	--	--	1320.29
	8/20/2014					32.54	--	--	1320.63
	8/26/2014					33.00	--	--	1320.17
	9/3/2014					32.96	--	--	1320.21
	9/10/2014					32.70	--	--	1320.47
	9/17/2014					32.58	--	--	1320.59
	9/24/2014					33.38	--	--	1319.79
	10/1/2014					32.78	--	--	1320.39
	10/8/2014					32.81	--	--	1320.36
	10/16/2014					33.04	--	--	1320.13
	10/21/2014					33.07	--	--	1320.10
	10/28/2014					33.06	--	--	1320.11

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-2 (cont.)	11/4/2014	2.0	1353.17	44	29-44	33.48	--	--	1319.69
	11/11/2014					33.07	--	--	1320.10
	11/25/2014					32.88	--	--	1320.29
	12/3/2014					33.39	--	--	1319.78
	12/9/2014					33.25	--	--	1319.92
	12/17/2014					33.24	--	--	1319.93
	12/23/2014					33.10	--	--	1320.07
	12/31/2014					32.87	--	--	1320.30
	1/7/2015					NM	--	--	NM
	1/14/2015					32.90	--	--	1320.27
	1/20/2015					32.93	--	--	1320.24
	1/28/2015					32.89	--	--	1320.28
	2/4/2015					32.92	--	--	1320.25
	2/9/2015					33.15	--	--	1320.02
MW-3	8/8/2013	2.0	1350.47	60	40-60	36.94	--	--	1313.53
	8/13/2013					34.71	--	--	1315.76
	8/21/2013					33.30	--	--	1317.17
	8/28/2013					39.26	--	--	1311.21
	9/5/2013					42.54	--	--	1307.93
	9/11/2013					45.19	--	--	1305.28
	9/17/2013					43.52	--	--	1306.95
	9/23/2013					43.34	--	--	1307.13
	9/30/2013					43.40	--	--	1307.07
	10/10/2013					43.18	--	--	1307.29
	10/17/2013					41.23	--	--	1309.24
	10/23/2013					41.43	--	--	1309.04
	10/31/2013					41.58	--	--	1308.89
	11/6/2013					41.19	--	--	1309.28
	11/13/2013					35.98	--	--	1314.49
	11/20/2013					35.27	--	--	1315.20
	11/26/2013					34.56	--	--	1315.91
	12/3/2013					33.77	--	--	1316.70
	12/11/2013					34.04	--	--	1316.43
	12/19/2013					33.72	--	--	1316.75
	12/27/2013					33.89	--	--	1316.58
	1/3/2014					NM	--	--	NM
	1/10/2014					33.47	--	--	1317.00
	1/16/2014					33.68	--	--	1316.79
	1/21/2014					33.84	--	--	1316.63
	1/27/2014					34.04	--	--	1316.43
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					34.00	--	--	1316.47
	2/26/2014					34.24	--	--	1316.23
	3/4/2014					34.36	--	--	1316.11
	3/13/2014					34.42	--	--	1316.05
	3/18/2014					34.35	--	--	1316.12
	3/27/2014					34.68	--	--	1315.79
	4/3/2014					35.39	--	--	1315.08
	4/7/2014					36.20	--	--	1314.27
	4/17/2014					37.95	--	--	1312.52
	4/22/2014					39.94	--	--	1310.53
	4/29/2014					41.00	--	--	1309.47

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-3 (cont.)	5/8/2014	2.0	1350.47	60	40-60	45.96	--	--	1304.51
	5/13/2014					47.00	--	--	1303.47
	5/20/2014					49.95	--	--	1300.52
	5/29/2014					47.07	--	--	1303.40
	6/3/2014					47.89	--	--	1302.58
	6/10/2014					44.14	--	--	1306.33
	6/18/2014					42.60	--	--	1307.87
	6/24/2014					41.62	--	--	1308.85
	7/1/2014					39.58	--	--	1310.89
	7/10/2014					40.35	--	--	1310.12
	7/15/2014					42.02	--	--	1308.45
	7/22/2014					42.80	--	--	1307.67
	7/31/2014					43.14	--	--	1307.33
	8/5/2014					47.55	--	--	1302.92
	8/14/2014					45.85	--	--	1304.62
	8/20/2014					49.15	--	--	1301.32
	8/26/2014					51.32	--	--	1299.15
	9/3/2014					51.10	--	--	1299.37
	9/10/2014					51.71	--	--	1298.76
	9/17/2014					51.84	--	--	1298.63
	9/24/2014					52.93	--	--	1297.54
	10/1/2014					53.93	--	--	1296.54
	10/8/2014					53.91	--	--	1296.56
	10/16/2014					50.41	--	--	1300.06
	10/21/2014					51.06	--	--	1299.41
	10/28/2014					50.29	--	--	1300.18
	11/4/2014					51.00	--	--	1299.47
	11/11/2014					49.17	--	--	1301.30
	11/25/2014					45.30	--	--	1305.17
	12/3/2014					44.10	--	--	1306.37
	12/9/2014					43.67	--	--	1306.80
	12/17/2014					42.83	--	--	1307.64
	12/23/2014					47.12	--	--	1303.35
	12/31/2014					29.37	--	--	1321.10
	1/7/2015					NM	--	--	NM
	1/14/2015					41.35	--	--	1309.12
	1/20/2015					41.36	--	--	1309.11
	1/28/2015					42.22	--	--	1308.25
	2/4/2015					41.12	--	--	1309.35
	2/9/2015					40.60	--	--	1309.87
MW-4	8/8/2013	2.0	1350.73	41	26-41	28.89	--	--	1321.84
	8/13/2013					28.85	--	--	1321.88
	8/21/2013					28.18	--	--	1322.55
	8/28/2013					28.56	--	--	1322.17
	9/5/2013					29.16	--	--	1321.57
	9/11/2013					29.55	--	--	1321.18
	9/17/2013					30.06	--	--	1320.67
	9/23/2013					30.32	--	--	1320.41
	9/30/2013					30.11	--	--	1320.62
	10/10/2013					30.45	--	--	1320.28
	10/17/2013					30.43	--	--	1320.30
	10/23/2013					30.36	--	--	1320.37
	10/31/2013					30.14	--	--	1320.59

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	11/6/2013					29.78	--	--	1320.95
	11/13/2013					30.21	--	--	1320.52
	11/20/2013					29.81	--	--	1320.92
	11/26/2013					30.34	--	--	1320.39
	12/3/2013					30.64	--	--	1320.09
	12/11/2013					30.19	--	--	1320.54
	12/19/2013					30.47	--	--	1320.26
	12/27/2013					30.43	--	--	1320.30
	1/3/2014					NM	--	--	NM
	1/10/2014					29.44	--	--	1321.29
	1/16/2014					29.38	--	--	1321.35
	1/21/2014					29.53	--	--	1321.20
	1/27/2014					30.36	--	--	1320.37
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					30.61	--	--	1320.12
	2/26/2014					31.56	--	--	1319.17
	3/4/2014					30.54	--	--	1320.19
	3/13/2014					30.56	--	--	1320.17
	3/18/2014					30.80	--	--	1319.93
	3/27/2014					30.72	--	--	1320.01
	4/3/2014					30.49	--	--	1320.24
	4/7/2014					30.53	--	--	1320.20
MW-4 (cont.)	4/17/2014	2.0	1350.73	41	26-41	30.54	--	--	1320.19
	4/22/2014					31.02	--	--	1319.71
	4/29/2014					31.25	--	--	1319.48
	5/8/2014					31.59	--	--	1319.14
	5/13/2014					31.30	--	--	1319.43
	5/20/2014					31.73	--	--	1319.00
	5/29/2014					31.63	--	--	1319.10
	6/3/2014					32.68	--	--	1318.05
	6/10/2014					32.52	--	--	1318.21
	6/18/2014					31.71	--	--	1319.02
	6/24/2014					30.73	--	--	1320.00
	7/1/2014					30.60	--	--	1320.13
	7/10/2014					30.39	--	--	1320.34
	7/15/2014					30.56	--	--	1320.17
	7/22/2014					30.34	--	--	1320.39
	7/31/2014					30.52	--	--	1320.21
	8/5/2014					30.69	--	--	1320.04
	8/14/2014					30.61	--	--	1320.12
	8/20/2014					30.81	--	--	1319.92
	8/26/2014					30.73	--	--	1320.00
	9/3/2014					30.91	--	--	1319.82
	9/10/2014					30.82	--	--	1319.91
	9/17/2014					30.91	--	--	1319.82
	9/24/2014					29.98	--	--	1320.75

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-4 (cont.)	10/1/2014	2.0	1350.73	41	26-41	31.26	--	--	1319.47
	10/8/2014					31.29	--	--	1319.44
	10/16/2014					31.20	--	--	1319.53
	10/21/2014					31.11	--	--	1319.62
	10/28/2014					30.94	--	--	1319.79
	11/4/2014					31.13	--	--	1319.60
	11/11/2014					31.03	--	--	1319.70
	11/25/2014					31.35	--	--	1319.38
	12/3/2014					31.41	--	--	1319.32
	12/9/2014					31.43	--	--	1319.30
	12/17/2014					31.44	--	--	1319.29
	12/23/2014					31.52	--	--	1319.21
	12/31/2014					31.71	--	--	1319.02
	1/7/2015					NM	--	--	NM
	1/14/2015					31.52	--	--	1319.21
	1/20/2015					31.55	--	--	1319.18
	1/28/2015					31.66	--	--	1319.07
	2/4/2015					31.70	--	--	1319.03
	2/9/2015					31.75	--	--	1318.98
MW-5	8/8/2013	2.0	1352.77	30	15-30	19.61	--	--	1333.16
	8/13/2013					19.39	--	--	1333.38
	8/21/2013					19.66	--	--	1333.11
	8/28/2013					20.02	--	--	1332.75
	9/5/2013					20.54	--	--	1332.23
	9/11/2013					20.81	--	--	1331.96
	9/17/2013					21.03	--	--	1331.74
	9/23/2013					21.00	--	--	1331.77
	9/30/2013					21.17	--	--	1331.60
	10/10/2013					21.45	--	--	1331.32
	10/17/2013					21.18	--	--	1331.59
	10/23/2013					21.20	--	--	1331.57
	10/31/2013					21.19	--	--	1331.58
	11/6/2013					20.91	--	--	1331.86
	11/13/2013					20.79	--	--	1331.98
	11/20/2013					20.18	--	--	1332.59
	11/26/2013					21.29	--	--	1331.48
	12/3/2013					20.84	--	--	1331.93
	12/11/2013					20.96	--	--	1331.81
	12/19/2013					20.54	--	--	1332.23
	12/27/2013					20.82	--	--	1331.95
	1/3/2014					NM	--	--	NM
	1/10/2014					20.19	--	--	1332.58
	1/16/2014					20.90	--	--	1331.87
	1/21/2014					21.04	--	--	1331.73
	1/27/2014					20.84	--	--	1331.93
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					21.23	--	--	1331.54
	2/26/2014					21.02	--	--	1331.75
	3/4/2014					21.05	--	--	1331.72
	3/13/2014					20.98	--	--	1331.79
	3/18/2014					20.86	--	--	1331.91
	3/27/2014					20.97	--	--	1331.80

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-5 (cont.)	4/3/2014	2.0	1352.77	30	15-30	21.70	--	--	1331.07
	4/7/2014					21.05	--	--	1331.72
	4/17/2014					21.10	--	--	1331.67
	4/22/2014					21.30	--	--	1331.47
	4/29/2014					21.15	--	--	1331.62
	5/8/2014					21.33	--	--	1331.44
	5/13/2014					21.17	--	--	1331.60
	5/20/2014					21.48	--	--	1331.29
	5/29/2014					21.41	--	--	1331.36
	6/3/2014					21.16	--	--	1331.61
	6/10/2014					20.65	--	--	1332.12
	6/18/2014					20.30	--	--	1332.47
	6/24/2014					19.96	--	--	1332.81
	7/1/2014					19.74	--	--	1333.03
	7/10/2014					19.91	--	--	1332.86
	7/15/2014					20.10	--	--	1332.67
	7/22/2014					20.04	--	--	1332.73
	7/31/2014					20.26	--	--	1332.51
	8/5/2014					20.29	--	--	1332.48
	8/14/2014					20.23	--	--	1332.54
	8/20/2014					20.24	--	--	1332.53
	8/26/2014					20.37	--	--	1332.40
	9/3/2014					20.44	--	--	1332.33
	9/10/2014					20.43	--	--	1332.34
	9/17/2014					20.54	--	--	1332.23
	9/24/2014					20.66	--	--	1332.11
	10/1/2014					20.59	--	--	1332.18
	10/8/2014					20.58	--	--	1332.19
	10/16/2014					20.39	--	--	1332.38
	10/21/2014					22.90	--	--	1329.87
	10/28/2014					20.14	--	--	1332.63
	11/4/2014					20.33	--	--	1332.44
	11/11/2014					20.39	--	--	1332.38
	11/25/2014					20.44	--	--	1332.33
	12/3/2014					20.59	--	--	1332.18
	12/9/2014					20.78	--	--	1331.99
	12/17/2014					20.68	--	--	1332.09
	12/23/2014					20.60	--	--	1332.17
	12/31/2014					20.61	--	--	1332.16
	1/7/2015					NM	--	--	NM
	1/14/2015					20.56	--	--	1332.21
	1/20/2015					20.55	--	--	1332.22
	1/28/2015					20.58	--	--	1332.19
	2/4/2015					20.69	--	--	1332.08
	2/9/2015					20.58	--	--	1332.19
MW-6	8/8/2013	2.0	1349.76	41	26-41	15.67	--	--	1334.09
	8/13/2013					18.34	--	--	1331.42
	8/21/2013					17.40	--	--	1332.36
	8/28/2013					17.95	--	--	1331.81
	9/5/2013					18.32	--	--	1331.44
	9/11/2013					18.21	--	--	1331.55
	9/17/2013					18.44	--	--	1331.32

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	9/23/2013					18.30	--	--	1331.46
	9/30/2013					18.69	--	--	1331.07
	10/10/2013					18.84	--	--	1330.92
	10/17/2013					18.76	--	--	1331.00
	10/23/2013					18.69	--	--	1331.07
	10/31/2013					18.57	--	--	1331.19
	11/6/2013					18.01	--	--	1331.75
	11/13/2013					19.42	--	--	1330.34
	11/20/2013					19.02	--	--	1330.74
	11/26/2013					19.84	--	--	1329.92
	12/3/2013					19.63	--	--	1330.13
	12/11/2013					20.45	--	--	1329.31
	12/19/2013					21.21	--	--	1328.55
	12/27/2013					21.67	--	--	1328.09
	1/3/2014					NM	--	--	NM
	1/10/2014					21.51	--	--	1328.25
	1/16/2014					21.48	--	--	1328.28
	1/21/2014					21.84	--	--	1327.92
	1/27/2014					22.26	--	--	1327.50
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					22.00	--	--	1327.76
	2/26/2014					22.32	--	--	1327.44
MW-6 (cont.	3/4/2014	2.0	1349.76	41	26-41	22.06	--	--	1327.70
	3/13/2014					22.30	--	--	1327.46
	3/18/2014					22.14	--	--	1327.62
	3/27/2014					21.89	--	--	1327.87
	4/3/2014					21.92	--	--	1327.84
	4/7/2014					22.37	--	--	1327.39
	4/17/2014					22.33	--	--	1327.43
	4/22/2014					22.41	--	--	1327.35
	4/29/2014					22.16	--	--	1327.60
	5/8/2014					22.02	--	--	1327.74
	5/13/2014					21.95	--	--	1327.81
	5/20/2014					22.46	--	--	1327.30
	5/29/2014					22.32	--	--	1327.44
	6/3/2014					22.09	--	--	1327.67
	6/10/2014					21.00	--	--	1328.76
	6/18/2014					20.54	--	--	1329.22
	6/24/2014					19.89	--	--	1329.87
	7/1/2014					19.46	--	--	1330.30
	7/10/2014					19.82	--	--	1329.94
	7/15/2014					19.86	--	--	1329.90
	7/22/2014					19.88	--	--	1329.88
	7/31/2014					20.00	--	--	1329.76
	8/5/2014					20.28	--	--	1329.48
	8/14/2014					20.42	--	--	1329.34

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-6 (cont.	8/20/2014	2.0	1349.76	41	26-41	20.56	--	--	1329.20
	8/26/2014					20.72	--	--	1329.04
	9/3/2014					20.98	--	--	1328.78
	9/10/2014					21.02	--	--	1328.74
	9/17/2014					21.49	--	--	1328.27
	9/24/2014					21.50	--	--	1328.26
	10/1/2014					21.57	--	--	1328.19
	10/8/2014					21.59	--	--	1328.17
	10/16/2014					20.74	--	--	1329.02
	10/21/2014					20.66	--	--	1329.10
	10/28/2014					20.79	--	--	1328.97
	11/4/2014					21.21	--	--	1328.55
	11/11/2014					21.68	--	--	1328.08
	11/25/2014					21.93	--	--	1327.83
	12/3/2014					22.06	--	--	1327.70
	12/9/2014					22.32	--	--	1327.44
	12/17/2014					22.20	--	--	1327.56
	12/23/2014					21.96	--	--	1327.80
	12/31/2014					20.61	--	--	1329.15
	1/7/2015					NM	--	--	NM
	1/14/2015					22.59	--	--	1327.17
	1/20/2015					22.45	--	--	1327.31
	1/28/2015					22.54	--	--	1327.22
	2/4/2015					22.59	--	--	1327.17
	2/9/2015					22.77	--	--	1326.99
MW-7	8/8/2013	2.0	1348.98	24	9-24	13.32	--	--	1335.66
	8/13/2013					13.68	--	--	1335.30
	8/21/2013					14.03	--	--	1334.95
	8/28/2013					14.76	--	--	1334.22
	9/5/2013					15.44	--	--	1333.54
	9/11/2013					15.66	--	--	1333.32
	9/17/2013					15.78	--	--	1333.20
	9/23/2013					15.54	--	--	1333.44
	9/30/2013					15.39	--	--	1333.59
	10/10/2013					15.65	--	--	1333.33
	10/17/2013					15.68	--	--	1333.30
	10/23/2013					15.64	--	--	1333.34
	10/31/2013					15.66	--	--	1333.32
	11/6/2013					15.11	--	--	1333.87
	11/13/2013					15.21	--	--	1333.77
	11/20/2013					15.62	--	--	1333.36
	11/26/2013					15.89	--	--	1333.09
	12/3/2013					16.03	--	--	1332.95
	12/11/2013					16.45	--	--	1332.53
	12/19/2013					16.41	--	--	1332.57
	12/27/2013					16.59	--	--	1332.39
	1/3/2014					NM	--	--	NM
	1/10/2014					16.47	--	--	1332.51
	1/16/2014					16.45	--	--	1332.53
	1/21/2014					16.66	--	--	1332.32
	1/27/2014					16.68	--	--	1332.30

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					16.61	--	--	1332.37
	2/26/2014					16.64	--	--	1332.34
	3/4/2014					16.65	--	--	1332.33
	3/13/2014					16.73	--	--	1332.25
	3/18/2014					16.68	--	--	1332.30
	3/27/2014					16.56	--	--	1332.42
	4/3/2014					16.64	--	--	1332.34
	4/7/2014					16.60	--	--	1332.38
	4/17/2014					16.66	--	--	1332.32
	4/22/2014					16.70	--	--	1332.28
	4/29/2014					16.70	--	--	1332.28
	5/8/2014					16.95	--	--	1332.03
	5/13/2014					16.80	--	--	1332.18
	5/20/2014					15.69	--	--	1333.29
	5/29/2014					17.44	--	--	1331.54
	6/3/2014					16.13	--	--	1332.85
	6/10/2014					14.85	--	--	1334.13
	6/18/2014					15.52	--	--	1333.46
	6/24/2014					14.78	--	--	1334.20
	7/1/2014					14.74	--	--	1334.24
	7/10/2014					15.10	--	--	1333.88
MW-7 (cont.)	7/15/2014	2.0	1348.98	24	9-24	15.31	--	--	1333.67
	7/22/2014					15.39	--	--	1333.59
	7/31/2014					15.72	--	--	1333.26
	8/5/2014					15.82	--	--	1333.16
	8/14/2014					15.59	--	--	1333.39
	8/20/2014					15.73	--	--	1333.25
	8/26/2014					15.90	--	--	1333.08
	9/3/2014					15.99	--	--	1332.99
	9/10/2014					16.03	--	--	1332.95
	9/17/2014					16.14	--	--	1332.84
	9/24/2014					16.24	--	--	1332.74
	10/1/2014					16.16	--	--	1332.82
	10/8/2014					16.17	--	--	1332.81
	10/16/2014					15.50	--	--	1333.48
	10/21/2014					15.65	--	--	1333.33
	10/28/2014					15.64	--	--	1333.34
	11/4/2014					16.02	--	--	1332.96
	11/11/2014					16.04	--	--	1332.94
	11/25/2014					16.37	--	--	1332.61
	12/3/2014					16.46	--	--	1332.52
	12/9/2014					16.54	--	--	1332.44
	12/17/2014					16.52	--	--	1332.46
	12/23/2014					16.41	--	--	1332.57
	12/31/2014					16.48	--	--	1332.50
	1/7/2015					NM	--	--	NM
	1/14/2015					16.49	--	--	1332.49
	1/20/2015					16.55	--	--	1332.43
	1/28/2015					16.56	--	--	1332.42
	2/4/2015					16.56	--	--	1332.42
	2/9/2015					16.58	--	--	1332.40

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	8/8/2013					18.62	--	--	1334.76
	8/13/2013					18.13	--	--	1335.25
	8/21/2013					18.32	--	--	1335.06
	8/28/2013					19.21	--	--	1334.17
	9/5/2013					20.00	--	--	1333.38
	9/11/2013					20.35	--	--	1333.03
	9/17/2013					20.54	--	--	1332.84
	9/23/2013					20.59	--	--	1332.79
	9/30/2013					20.70	--	--	1332.68
	10/10/2013					20.82	--	--	1332.56
	10/17/2013					20.92	--	--	1332.46
	10/23/2013					20.85	--	--	1332.53
	10/31/2013					20.89	--	--	1332.49
	11/6/2013					19.21	--	--	1334.17
	11/13/2013					19.38	--	--	1334.00
	11/20/2013					18.86	--	--	1334.52
	11/26/2013					20.30	--	--	1333.08
	12/3/2013					20.54	--	--	1332.84
	12/11/2013					21.09	--	--	1332.29
	12/19/2013					21.11	--	--	1332.27
	12/27/2013					21.54	--	--	1331.84
	1/3/2014					NM	--	--	NM
	1/10/2014					21.24	--	--	1332.14
MW-8	1/16/2014	2.0	1353.38	30	15-30	21.70	--	--	1331.68
	1/21/2014					21.80	--	--	1331.58
	1/27/2014					21.88	--	--	1331.50
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					22.15	--	--	1331.23
	2/26/2014					21.46	--	--	1331.92
	3/4/2014					21.84	--	--	1331.54
	3/13/2014					21.90	--	--	1331.48
	3/18/2014					21.70	--	--	1331.68
	3/27/2014					21.79	--	--	1331.59
	4/3/2014					21.95	--	--	1331.43
	4/7/2014					22.06	--	--	1331.32
	4/17/2014					22.29	--	--	1331.09
	4/22/2014					22.26	--	--	1331.12
	4/29/2014					22.20	--	--	1331.18
	5/8/2014					22.23	--	--	1331.15
	5/13/2014					22.42	--	--	1330.96
	5/20/2014					22.27	--	--	1331.11
	5/29/2014					22.43	--	--	1330.95
	6/3/2014					22.32	--	--	1331.06
	6/10/2014					21.73	--	--	1331.65
	6/18/2014					20.64	--	--	1332.74
	6/24/2014					20.00	--	--	1333.38

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-8 (cont.)	7/1/2014	2.0	1353.38	30	15-30	20.22	--	--	1333.16
	7/10/2014					20.24	--	--	1333.14
	7/15/2014					20.47	--	--	1332.91
	7/22/2014					20.64	--	--	1332.74
	7/31/2014					20.89	--	--	1332.49
	8/5/2014					20.96	--	--	1332.42
	8/14/2014					21.09	--	--	1332.29
	8/20/2014					21.06	--	--	1332.32
	8/26/2014					21.24	--	--	1332.14
	9/3/2014					21.36	--	--	1332.02
	9/10/2014					21.44	--	--	1331.94
	9/17/2014					21.56	--	--	1331.82
	9/24/2014					21.69	--	--	1331.69
	10/1/2014					21.65	--	--	1331.73
	10/8/2014					21.70	--	--	1331.68
	10/16/2014					21.53	--	--	1331.85
	10/21/2014					21.32	--	--	1332.06
	10/28/2014					20.98	--	--	1332.40
	11/4/2014					21.09	--	--	1332.29
	11/11/2014					21.09	--	--	1332.29
	11/25/2014					21.21	--	--	1332.17
	12/3/2014					21.48	--	--	1331.90
	12/9/2014					21.69	--	--	1331.69
	12/17/2014					21.74	--	--	1331.64
	12/23/2014					21.61	--	--	1331.77
	12/31/2014					21.73	--	--	1331.65
	1/7/2015					NM	--	--	NM
	1/14/2015					21.64	--	--	1331.74
	1/20/2015					21.70	--	--	1331.68
	1/28/2015					21.72	--	--	1331.66
	2/4/2015					21.92	--	--	1331.46
	2/9/2015					21.88	--	--	1331.50
MW-9	8/8/2013	2.0	1349.48	34	19-34	28.61	--	--	1320.87
	8/13/2013					27.58	--	--	1321.90
	8/21/2013					27.52	--	--	1321.96
	8/28/2013					27.60	--	--	1321.88
	9/5/2013					28.28	--	--	1321.20
	9/11/2013					30.57	--	--	1318.91
	9/17/2013					30.05	--	--	1319.43
	9/23/2013					30.25	--	--	1319.23
	9/30/2013					30.45	--	--	1319.03
	10/10/2013					30.76	--	--	1318.72
	10/17/2013					30.69	--	--	1318.79
	10/23/2013					30.73	--	--	1318.75
	10/31/2013					30.11	--	--	1319.37
	11/6/2013					30.03	--	--	1319.45
	11/13/2013					29.54	--	--	1319.94
	11/20/2013					28.66	--	--	1320.82
	11/26/2013					28.67	--	--	1320.81
	12/3/2013					28.40	--	--	1321.08
	12/11/2013					28.55	--	--	1320.93
	12/19/2013					28.55	--	--	1320.93
	12/27/2013					NM	--	--	NM

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-9 (cont.)	1/3/2014	2.0	1349.48	34	19-34	NM	--	--	NM
	1/10/2014					28.65	--	--	1320.83
	1/16/2014					28.75	--	--	1320.73
	1/21/2014					28.91	--	--	1320.57
	1/27/2014					28.93	--	--	1320.55
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					29.09	--	--	1320.39
	2/26/2014					29.16	--	--	1320.32
	3/4/2014					NM	--	--	NM
	3/13/2014					29.31	--	--	1320.17
	3/18/2014					29.17	--	--	1320.31
	3/27/2014					28.59	--	--	1320.89
	4/3/2014					30.00	--	--	1319.48
	4/7/2014					30.25	--	--	1319.23
	4/17/2014					30.81	--	--	1318.67
	4/22/2014					31.06	--	--	1318.42
	4/29/2014					31.50	--	--	1317.98
	5/8/2014					31.81	--	--	1317.67
	5/13/2014					32.96	--	--	1316.52
	5/20/2014					33.39	--	--	1316.09
	5/29/2014					33.56	--	--	1315.92
	6/3/2014					33.61	--	--	1315.87
	6/10/2014					32.83	--	--	1316.65
	6/18/2014					31.25	--	--	1318.23
	6/24/2014					30.60	--	--	1318.88
	7/1/2014					30.14	--	--	1319.34
	7/10/2014					30.21	--	--	1319.27
	7/15/2014					30.46	--	--	1319.02
	7/22/2014					30.56	--	--	1318.92
	7/31/2014					NM	--	--	NM
	8/5/2014					NM	--	--	NM
	8/14/2014					31.44	--	--	1318.04
	8/20/2014					NM	--	--	NM
	8/26/2014					NM	--	--	NM
	9/3/2014					NM	--	--	NM
	9/10/2014					32.21	--	--	NM
	9/17/2014					NM	--	--	NM
	9/24/2014					32.98	--	--	1316.50
	10/1/2014					32.50	--	--	1316.98
	10/8/2014					32.52	--	--	1316.96
	10/16/2014					32.24	--	--	1317.24
	10/21/2014					NM	--	--	#VALUE!
	10/28/2014					31.87	--	--	1317.61

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-9 (cont.)	11/4/2014	2.0	1349.48	34	19-34	32.09	--	--	1317.39
	11/11/2014					31.84	--	--	1317.64
	11/25/2014					32.01	--	--	1317.47
	12/3/2014					32.18	--	--	1317.30
	12/9/2014					31.97	--	--	1317.51
	12/17/2014					32.04	--	--	1317.44
	12/23/2014					31.96	--	--	1317.52
	12/31/2014					31.11	--	--	1318.37
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					NM	--	--	NM
	1/28/2015					31.81	--	--	1317.67
	2/4/2015					31.90	--	--	1317.58
	2/9/2015					31.78	--	--	1317.70
MW-10	8/8/2013	2.0	1348.79	34	19-34	26.72	--	--	1322.07
	8/13/2013					25.39	--	--	1323.40
	8/21/2013					24.94	--	--	1323.85
	8/28/2013					25.94	--	--	1322.85
	9/5/2013					28.21	--	--	1320.58
	9/11/2013					28.42	--	--	1320.37
	9/17/2013					28.49	--	--	1320.30
	9/23/2013					28.46	--	--	1320.33
	9/30/2013					28.32	--	--	1320.47
	10/10/2013					28.30	--	--	1320.49
	10/17/2013					28.45	--	--	1320.34
	10/23/2013					28.33	--	--	1320.46
	10/31/2013					28.40	--	--	1320.39
	11/6/2013					27.87	--	--	1320.92
	11/13/2013					28.25	--	--	1320.54
	11/20/2013					27.53	--	--	1321.26
	11/26/2013					27.30	--	--	1321.49
	12/3/2013					26.81	--	--	1321.98
	12/11/2013					27.14	--	--	1321.65
	12/19/2013					27.10	--	--	1321.69
	12/27/2013					27.42	--	--	1321.37
	1/3/2014					NM	--	--	NM
	1/10/2014					27.35	--	--	1321.44
	1/16/2014					27.51	--	--	1321.28
	1/21/2014					27.77	--	--	1321.02
	1/27/2014					27.47	--	--	1321.32
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					27.53	--	--	1321.26
	2/26/2014					27.58	--	--	1321.21
	3/4/2014					27.66	--	--	1321.13
	3/13/2014					27.78	--	--	1321.01
	3/18/2014					27.65	--	--	1321.14
	3/27/2014					28.12	--	--	1320.67
	4/3/2014					28.36	--	--	1320.43
	4/7/2014					28.43	--	--	1320.36
	4/17/2014					28.41	--	--	1320.38
	4/22/2014					28.48	--	--	1320.31
	4/29/2014					28.50	--	--	1320.29

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-10 (cont.)	5/8/2014	2.0	1348.79	34	19-34	29.01	--	--	1319.78
	5/13/2014					29.08	--	--	1319.71
	5/20/2014					29.21	--	--	1319.58
	5/29/2014					28.95	--	--	1319.84
	6/3/2014					28.46	--	--	1320.33
	6/10/2014					28.25	--	--	1320.54
	6/18/2014					27.25	--	--	1321.54
	6/24/2014					NM	--	--	NM
	7/1/2014					28.44	--	--	1320.35
	7/10/2014					28.28	--	--	1320.51
	7/15/2014					28.32	--	--	1320.47
	7/22/2014					28.28	--	--	1320.51
	7/31/2014					28.50	--	--	1320.29
	8/5/2014					28.47	--	--	1320.32
	8/14/2014					28.41	--	--	1320.38
	8/20/2014					28.40	--	--	1320.39
	8/26/2014					28.44	--	--	1320.35
	9/3/2014					29.46	--	--	1319.33
	9/10/2014					28.44	--	--	1320.35
	9/17/2014					28.46	--	--	1320.33
	9/24/2014					28.47	--	--	1320.32
	10/1/2014					28.45	--	--	1320.34
	10/8/2014					28.44	--	--	1320.35
	10/16/2014					28.39	--	--	1320.40
	10/21/2014					28.45	--	--	1320.34
	10/28/2014					28.42	--	--	1320.37
	11/4/2014					28.46	--	--	1320.33
	11/11/2014					28.52	--	--	1320.27
	11/25/2014					28.65	--	--	1320.14
	12/3/2014					28.69	--	--	1320.10
	12/9/2014					28.65	--	--	1320.14
	12/17/2014					28.61	--	--	1320.18
	12/23/2014					NM	--	--	NM
	12/31/2014					29.36	--	--	1319.43
	1/7/2015					NM	--	--	NM
	1/14/2015					28.45	--	--	1320.34
	1/20/2015					28.42	--	--	1320.37
	1/28/2015					28.44	--	--	1320.35
	2/4/2015					28.49	--	--	1320.30
	2/9/2015					28.54	--	--	1320.25
MW-11	9/30/2013	2.0	1351.34	42	22-42	29.03	--	--	1322.31
	10/10/2013					28.08	--	--	1323.26
	10/17/2013					28.26	--	--	1323.08
	10/23/2013					29.36	--	--	1321.98
	10/31/2013					28.92	--	--	1322.42
	11/6/2013					28.14	--	--	1323.20
	11/13/2013					28.16	--	--	1323.18
	11/20/2013					27.70	--	--	1323.64
	11/26/2013					28.03	--	--	1323.31
	12/3/2013					28.03	--	--	1323.31
	12/11/2013					28.54	--	--	1322.80
	12/19/2013					28.53	--	--	1322.81
	12/27/2013					28.80	--	--	1322.54

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-11 (cont.)	1/3/2014	2.0	1351.34	42	22-42	NM	--	--	NM
	1/10/2014					29.60	--	--	1321.74
	1/16/2014					28.89	--	--	1322.45
	1/21/2014					28.99	--	--	1322.35
	1/27/2014					28.91	--	--	1322.43
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					28.52	--	--	1322.82
	2/26/2014					28.71	--	--	1322.63
	3/4/2014					28.61	--	--	1322.73
	3/13/2014					28.77	--	--	1322.57
	3/18/2014					28.51	--	--	1322.83
	3/27/2014					28.68	--	--	1322.66
	4/3/2014					28.77	--	--	1322.57
	4/7/2014					28.75	--	--	1322.59
	4/17/2014					28.79	--	--	1322.55
	4/22/2014					28.92	--	--	1322.42
	4/29/2014					28.90	--	--	1322.44
	5/8/2014					29.84	--	--	1321.50
	5/13/2014					29.91	--	--	1321.43
	5/20/2014					28.52	--	--	1322.82
	5/29/2014					30.09	--	--	1321.25
	6/3/2014					29.34	--	--	1322.00
	6/10/2014					28.71	--	--	1322.63
	6/18/2014					28.44	--	--	1322.90
	6/24/2014					28.09	--	--	1323.25
	7/1/2014					27.76	--	--	1323.58
	7/10/2014					27.85	--	--	1323.49
	7/15/2014					29.83	--	--	1321.51
	7/22/2014					28.13	--	--	1323.21
	7/31/2014					28.49	--	--	1322.85
	8/5/2014					28.49	--	--	1322.85
	8/14/2014					28.46	--	--	1322.88
	8/20/2014					28.54	--	--	1322.80
	8/26/2014					28.53	--	--	1322.81
	9/3/2014					28.60	--	--	1322.74
	9/10/2014					28.65	--	--	1322.69
	9/17/2014					28.69	--	--	1322.65
	9/24/2014					23.69	--	--	1327.65
	10/1/2014					28.58	--	--	1322.76
	10/8/2014					28.62	--	--	1322.72
	10/16/2014					28.59	--	--	1322.75
	10/21/2014					28.65	--	--	1322.69
	10/28/2014					29.75	--	--	1321.59
	11/4/2014					28.57	--	--	1322.77
	11/11/2014					28.70	--	--	1322.64

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-11 (cont.)	11/25/2014	2.0	1351.34	42	22-42	28.93	--	--	1322.41
	12/3/2014					29.00	--	--	1322.34
	12/9/2014					28.94	--	--	1322.40
	12/17/2014					28.93	--	--	1322.41
	12/23/2014					28.96	--	--	1322.38
	12/31/2014					29.03	--	--	1322.31
	1/7/2015					NM	--	--	NM
	1/14/2015					28.88	--	--	1322.46
	1/20/2015					28.88	--	--	1322.46
	1/28/2015					28.97	--	--	1322.37
	2/4/2015					28.94	--	--	1322.40
	2/9/2015					29.26	--	--	1322.08
MW-12	9/30/2013	2.0	1349.74	43	23-43	30.15	--	--	1319.59
	10/10/2013					30.55	--	--	1319.19
	10/17/2013					30.49	--	--	1319.25
	10/23/2013					30.40	--	--	1319.34
	10/31/2013					30.45	--	--	1319.29
	11/6/2013					29.91	--	--	1319.83
	11/13/2013					29.32	--	--	1320.42
	11/20/2013					28.16	--	--	1321.58
	11/26/2013					27.91	--	--	1321.83
	12/3/2013					27.41	--	--	1322.33
	12/11/2013					27.83	--	--	1321.91
	12/19/2013					27.74	--	--	1322.00
	12/27/2013					NM	--	--	NM
	1/3/2014					NM	--	--	NM
	1/10/2014					28.25	--	--	1321.49
	1/16/2014					28.28	--	--	1321.46
	1/21/2014					28.61	--	--	1321.13
	1/27/2014					28.40	--	--	1321.34
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					28.46	--	--	1321.28
	2/26/2014					28.49	--	--	1321.25
	3/4/2014					NM	--	--	NM
	3/13/2014					28.77	--	--	1320.97
	3/18/2014					28.70	--	--	1321.04
	3/27/2014					29.25	--	--	1320.49
	4/3/2014					29.70	--	--	1320.04
	4/7/2014					29.83	--	--	1319.91
	4/17/2014					30.45	--	--	1319.29
	4/22/2014					30.85	--	--	1318.89
	4/29/2014					31.10	--	--	1318.64
	5/8/2014					31.29	--	--	1318.45
	5/13/2014					31.21	--	--	1318.53
	5/20/2014					31.13	--	--	1318.61
	5/29/2014					31.16	--	--	1318.58
	6/3/2014					31.14	--	--	1318.60
	6/10/2014					31.15	--	--	1318.59
	6/18/2014					31.01	--	--	1318.73
	6/24/2014					30.79	--	--	1318.95
	7/1/2014					30.42	--	--	1319.32
	7/10/2014					30.48	--	--	1319.26

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-12 (cont.)	7/15/2014	2.0	1349.74	43	23-43	30.75	--	--	1318.99
	7/22/2014					30.72	--	--	1319.02
	7/31/2014					31.07	--	--	1318.67
	8/5/2014					31.15	--	--	1318.59
	8/14/2014					31.07	--	--	1318.67
	8/20/2014					31.01	--	--	1318.73
	8/26/2014					31.12	--	--	1318.62
	9/3/2014					31.12	--	--	1318.62
	9/10/2014					31.12	--	--	1318.62
	9/17/2014					31.12	--	--	1318.62
	9/24/2014					31.11	--	--	1318.63
	10/1/2014					31.05	--	--	1318.69
	10/8/2014					31.08	--	--	1318.66
	10/16/2014					31.05	--	--	1318.69
	10/21/2014					31.09	--	--	1318.65
	10/28/2014					31.09	--	--	1318.65
	11/4/2014					31.06	--	--	1318.68
	11/11/2014					31.12	--	--	1318.62
	11/25/2014					31.10	--	--	1318.64
	12/3/2014					31.05	--	--	1318.69
	12/9/2014					31.12	--	--	1318.62
	12/17/2014					31.11	--	--	1318.63
	12/23/2014					31.06	--	--	1318.68
	12/31/2014					31.11	--	--	1318.63
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					31.04	--	--	1318.70
	1/28/2015					31.05	--	--	1318.69
	2/4/2015					31.07	--	--	1318.67
	2/9/2015					31.06	--	--	1318.68
MW-13	9/30/2013	2.0	1354.58	45	25-45	31.25	--	--	1323.33
	10/10/2013					31.59	--	--	1322.99
	10/17/2013					31.74	--	--	1322.84
	10/23/2013					31.70	--	--	1322.88
	10/31/2013					31.72	--	--	1322.86
	11/6/2013					31.61	--	--	1322.97
	11/13/2013					31.70	--	--	1322.88
	11/20/2013					30.84	--	--	1323.74
	11/26/2013					31.30	--	--	1323.28
	12/3/2013					31.02	--	--	1323.56
	12/11/2013					31.26	--	--	1323.32
	12/19/2013					31.16	--	--	1323.42
	12/27/2013					31.48	--	--	1323.10
	1/3/2014					NM	--	--	NM
	1/10/2014					31.22	--	--	1323.36
	1/16/2014					32.70	--	--	1321.88
	1/21/2014					31.94	--	--	1322.64
	1/27/2014					31.98	--	--	1322.60
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.92	--	--	1322.66
	2/26/2014					32.10	--	--	1322.48

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
	3/4/2014					32.05	--	--	1322.53
	3/13/2014					32.25	--	--	1322.33
	3/18/2014					32.05	--	--	1322.53
	3/27/2014					32.16	--	--	1322.42
	4/3/2014					32.41	--	--	1322.17
	4/7/2014					32.35	--	--	1322.23
	4/17/2014					32.38	--	--	1322.20
	4/22/2014					32.70	--	--	1321.88
	4/29/2014					32.91	--	--	1321.67
	5/8/2014					33.03	--	--	1321.55
	5/13/2014					32.95	--	--	1321.63
	5/20/2014					33.39	--	--	1321.19
	5/29/2014					33.34	--	--	1321.24
	6/3/2014					33.45	--	--	1321.13
	6/10/2014					33.50	--	--	1321.08
	6/18/2014					33.44	--	--	1321.14
	6/24/2014					33.16	--	--	1321.42
	7/1/2014					32.90	--	--	1321.68
	7/10/2014					32.75	--	--	1321.83
	7/15/2014					32.99	--	--	1321.59
	7/22/2014					32.46	--	--	1322.12
MW-13 (cont.)	7/31/2014	2.0	1354.58	45	25-45	32.47	--	--	1322.11
	8/5/2014					32.40	--	--	1322.18
	8/14/2014					32.33	--	--	1322.25
	8/20/2014					32.35	--	--	1322.23
	8/26/2014					31.26	--	--	1323.32
	9/3/2014					32.39	--	--	1322.19
	9/10/2014					32.46	--	--	1322.12
	9/17/2014					32.42	--	--	1322.16
	9/24/2014					32.51	--	--	1322.07
	10/1/2014					32.79	--	--	1321.79
	10/8/2014					32.77	--	--	1321.81
	10/16/2014					33.00	--	--	1321.58
	10/21/2014					32.70	--	--	1321.88
	10/28/2014					32.83	--	--	1321.75
	11/4/2014					32.71	--	--	1321.87
	11/11/2014					32.60	--	--	1321.98
	11/25/2014					32.65	--	--	1321.93
	12/3/2014					32.88	--	--	1321.70
	12/9/2014					32.76	--	--	1321.82
	12/17/2014					32.95	--	--	1321.63
	12/23/2014					32.94	--	--	1321.64
	12/31/2014					32.97	--	--	1321.61
	1/7/2015					NM	--	--	NM
	1/14/2015					33.06	--	--	1321.52
	1/20/2015					32.93	--	--	1321.65
	1/28/2015					32.85	--	--	1321.73
	2/4/2015					33.07	--	--	1321.51
	2/9/2015					32.81	--	--	1321.77

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-14	9/30/2013	2.0	1354.99	45	25-45	31.59	--	--	1323.40
	10/10/2013					31.53	--	--	1323.46
	10/17/2013					31.71	--	--	1323.28
	10/23/2013					31.74	--	--	1323.25
	10/31/2013					31.76	--	--	1323.23
	11/6/2013					NM	--	--	NM
	11/13/2013					31.48	--	--	1323.51
	11/20/2013					30.51	--	--	1324.48
	11/26/2013					31.47	--	--	1323.52
	12/3/2013					31.42	--	--	1323.57
	12/11/2013					31.73	--	--	1323.26
	12/19/2013					31.74	--	--	1323.25
	12/27/2013					31.95	--	--	1323.04
	1/3/2014					NM	--	--	NM
	1/10/2014					31.47	--	--	1323.52
	1/16/2014					32.23	--	--	1322.76
	1/21/2014					32.35	--	--	1322.64
	1/27/2014					32.40	--	--	1322.59
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					32.58	--	--	1322.41
	2/26/2014					32.71	--	--	1322.28
	3/4/2014					32.75	--	--	1322.24
	3/13/2014					32.83	--	--	1322.16
	3/18/2014					32.70	--	--	1322.29
	3/27/2014					32.79	--	--	1322.20
	4/3/2014					32.95	--	--	1322.04
	4/7/2014					33.11	--	--	1321.88
	4/17/2014					33.56	--	--	1321.43
	4/22/2014					33.82	--	--	1321.17
	4/29/2014					NM	--	--	NM
	5/8/2014					34.85	--	--	1320.14
	5/13/2014					35.20	--	--	1319.79
	5/20/2014					34.95	--	--	1320.04
	5/29/2014					34.50	--	--	1320.49
	6/3/2014					34.55	--	--	1320.44
	6/10/2014					33.69	--	--	1321.30
	6/18/2014					33.20	--	--	1321.79
	6/24/2014					32.07	--	--	1322.92
	7/1/2014					31.96	--	--	1323.03
	7/10/2014					31.84	--	--	1323.15
	7/15/2014					31.85	--	--	1323.14
	7/22/2014					31.88	--	--	1323.11
	7/31/2014					31.94	--	--	1323.05
	8/5/2014					32.01	--	--	1322.98
	8/14/2014					32.04	--	--	1322.95

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-14 (cont.)	8/20/2014	2.0	1354.99	45	25-45	32.01	--	--	1322.98
	8/26/2014					32.15	--	--	1322.84
	9/3/2014					32.19	--	--	1322.80
	9/10/2014					32.30	--	--	1322.69
	9/17/2014					32.38	--	--	1322.61
	9/24/2014					32.52	--	--	1322.47
	10/1/2014					32.49	--	--	1322.50
	10/8/2014					32.51	--	--	1322.48
	10/16/2014					32.40	--	--	1322.59
	10/21/2014					NM	--	--	--
	10/29/2014					32.28	--	--	1322.71
	11/4/2014					32.29	--	--	1322.70
	11/11/2014					32.36	--	--	1322.63
	11/25/2014					32.53	--	--	1322.46
	12/3/2014					32.84	--	--	1322.15
	12/9/2014					33.08	--	--	1321.91
	12/17/2014					33.33	--	--	1321.66
	12/23/2014					33.33	--	--	1321.66
	12/31/2014					33.51	--	--	1321.48
	1/7/2015					NM	--	--	NM
	1/14/2015					33.51	--	--	1321.48
	1/20/2015					33.59	--	--	1321.40
	1/28/2015					33.65	--	--	1321.34
	2/4/2015					33.88	--	--	1321.11
	2/9/2015					34.00	--	--	1320.99
MW-15	9/30/2013	2.0	1351.79	45	25-45	32.64	--	--	1319.15
	10/10/2013					32.75	--	--	1319.04
	10/17/2013					32.93	--	--	1318.86
	10/23/2013					32.84	--	--	1318.95
	10/31/2013					32.77	--	--	1319.02
	11/6/2013					32.23	--	--	1319.56
	11/13/2013					31.72	--	--	1320.07
	11/20/2013					30.80	--	--	1320.99
	11/26/2013					30.96	--	--	1320.83
	12/3/2013					30.63	--	--	1321.16
	12/11/2013					30.93	--	--	1320.86
	12/19/2013					31.75	--	--	1320.04
	12/27/2013					31.05	--	--	1320.74
	1/3/2014					NM	--	--	NM
	1/10/2014					31.10	--	--	1320.69
	1/16/2014					31.30	--	--	1320.49
	1/21/2014					31.61	--	--	1320.18
	1/27/2014					31.61	--	--	1320.18
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					31.82	--	--	1319.97
	2/26/2014					32.03	--	--	1319.76
	3/4/2014					32.10	--	--	1319.69
	3/13/2014					37.20	--	--	1314.59
	3/18/2014					37.00	--	--	1314.79
	3/27/2014					32.29	--	--	1319.50
	4/3/2014					32.60	--	--	1319.19
	4/7/2014					32.89	--	--	1318.90

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-15 (cont.)	4/17/2014	2.0	1351.79	45	25-45	33.69	--	--	1318.10
	4/22/2014					34.24	--	--	1317.55
	4/29/2014					34.95	--	--	1316.84
	5/8/2014					35.85	--	--	1315.94
	5/13/2014					35.89	--	--	1315.90
	5/20/2014					38.63	--	--	1313.16
	5/29/2014					36.85	--	--	1314.94
	6/3/2014					NM	--	--	NM
	6/10/2014					NM	--	--	NM
	6/18/2014					35.10	--	--	1316.69
	6/24/2014					34.65	--	--	1317.14
	7/1/2014					33.78	--	--	1318.01
	7/10/2014					33.35	--	--	1318.44
	7/15/2014					33.40	--	--	1318.39
	7/22/2014					33.29	--	--	1318.50
	7/31/2014					33.89	--	--	1317.90
	8/5/2014					34.04	--	--	1317.75
	8/14/2014					34.19	--	--	1317.60
	8/20/2014					34.28	--	--	1317.51
	8/26/2014					34.44	--	--	1317.35
	9/3/2014					34.65	--	--	1317.14
	9/10/2014					34.79	--	--	1317.00
	9/17/2014					34.98	--	--	1316.81
	9/24/2014					35.29	--	--	1316.50
	10/1/2014					35.51	--	--	1316.28
	10/8/2014					35.53	--	--	1316.26
	10/16/2014					35.61	--	--	1316.18
	10/21/2014					35.41	--	--	1316.38
	10/28/2014					35.16	--	--	1316.63
	11/4/2014					35.07	--	--	1316.72
	11/11/2014					35.02	--	--	1316.77
	11/25/2014					30.11	--	--	1321.68
	12/3/2014					35.37	--	--	1316.42
	12/9/2014					35.42	--	--	1316.37
	12/17/2014					NM	--	--	NM
	12/23/2014					35.13	--	--	1316.66
	12/31/2014					30.59	--	--	1321.20
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					34.93	--	--	1316.86
	1/28/2015					34.98	--	--	1316.81
	2/4/2015					35.12	--	--	1316.67
	2/9/2015					35.02	--	--	1316.77
MW-16	9/30/2013	2.0	1352.13	45	25-45	31.60	--	--	1320.53
	10/10/2013					30.76	--	--	1321.37
	10/17/2013					30.79	--	--	1321.34
	10/23/2013					30.78	--	--	1321.35
	10/31/2013					30.80	--	--	1321.33
	11/6/2013					30.33	--	--	1321.80
	11/13/2013					30.01	--	--	1322.12
	11/20/2013					29.63	--	--	1322.50
	11/26/2013					29.71	--	--	1322.42

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-16 (cont.)	12/3/2013	2.0	1352.13	45	25-45	29.52	--	--	1322.61
	12/11/2013					29.71	--	--	1322.42
	12/19/2013					28.51	--	--	1323.62
	12/27/2013					29.97	--	--	1322.16
	1/3/2014					NM	--	--	NM
	1/10/2014					29.91	--	--	1322.22
	1/16/2014					29.70	--	--	1322.43
	1/21/2014					29.89	--	--	1322.24
	1/27/2014					29.60	--	--	1322.53
	2/5/2014					NM	--	--	NM
	2/12/2014					NM	--	--	NM
	2/19/2014					29.41	--	--	1322.72
	2/26/2014					29.68	--	--	1322.45
	3/4/2014					NM	--	--	NM
	3/13/2014					28.71	--	--	1323.42
	3/18/2014					29.50	--	--	1322.63
	3/27/2014					29.62	--	--	1322.51
	4/3/2014					29.86	--	--	1322.27
	4/7/2014					30.05	--	--	1322.08
	4/17/2014					30.84	--	--	1321.29
	4/22/2014					30.95	--	--	1321.18
	4/29/2014					31.30	--	--	1320.83
	5/8/2014					31.81	--	--	1320.32
	5/13/2014					31.84	--	--	1320.29
	5/20/2014					32.91	--	--	1319.22
	5/29/2014					32.81	--	--	1319.32
	6/3/2014					32.44	--	--	1319.69
	6/10/2014					NM	--	--	NM
	6/18/2014					31.31	--	--	1320.82
	6/24/2014					29.93	--	--	1322.20
	7/1/2014					29.65	--	--	1322.48
	7/10/2014					28.95	--	--	1323.18
	7/15/2014					28.82	--	--	1323.31
	7/22/2014					28.78	--	--	1323.35
	7/31/2014					29.19	--	--	1322.94
	8/5/2014					29.20	--	--	1322.93
	8/14/2014					29.09	--	--	1323.04
	8/20/2014					29.21	--	--	1322.92
	8/26/2014					29.23	--	--	1322.90
	9/3/2014					29.38	--	--	1322.75
	9/10/2014					29.58	--	--	1322.55
	9/17/2014					29.71	--	--	1322.42
	9/24/2014					29.95	--	--	1322.18
	10/1/2014					30.04	--	--	1322.09
	10/8/2014					30.08	--	--	1322.05
	10/16/2014					30.04	--	--	1322.09

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
MW-16 (cont.)	10/21/2014	2.0	1352.13	45	25-45	29.69	--	--	1322.44
	10/28/2014					29.69	--	--	1322.44
	11/4/2014					30.06	--	--	1322.07
	11/11/2014					30.21	--	--	1321.92
	11/25/2014					NM	--	--	--
	12/3/2014					30.18	--	--	1321.95
	12/9/2014					30.30	--	--	1321.83
	12/17/2014					30.47	--	--	1321.66
	12/23/2014					30.38	--	--	1321.75
	12/31/2014					30.56	--	--	1321.57
	1/7/2015					NM	--	--	NM
	1/14/2015					NM	--	--	NM
	1/20/2015					30.71	--	--	1321.42
	1/28/2015					20.13	--	--	1332.00
	2/4/2015					30.76	--	--	1321.37
	2/9/2015					31.09	--	--	1321.04
									Pond Stage (feet MSL)
Stormwater Pond	8/8/2013	NA	NA	NA	NA	NA	--	--	1344.75
	8/13/2013						--	--	1344.75
	8/21/2013						--	--	1344.50
	8/28/2013						--	--	1344.25
	9/5/2013						--	--	1344.25
	9/11/2013						--	--	1344.00
	9/17/2013						--	--	1344.00
	9/23/2013						--	--	1344.50
	10/3/2013						--	--	1344.50
	10/10/2013						--	--	1344.50
	10/17/2013						--	--	1344.00
	10/23/2013						--	--	1344.50
	10/31/2013						--	--	1345.00
	11/6/2013						--	--	1344.75
	11/13/2013						--	--	1344.50
	11/20/2013						--	--	1344.50
	11/26/2013						--	--	1344.25
	12/3/2013						--	--	1344.25
	12/11/2013						--	--	1344.75
	12/19/2013						--	--	1344.25
	12/27/2013						--	--	1344.25
	1/3/2014						--	--	NM
	1/10/2014						--	--	1344.00
	1/16/2014						--	--	1344.00
	1/21/2014						--	--	1344.00
	1/27/2014						--	--	NM
	2/5/2014						--	--	NM
	2/12/2014						--	--	NM
	2/19/2014						--	--	NM
	2/26/2014						--	--	1344.00
	3/4/2014						--	--	NM
	3/13/2014						--	--	1344.00
	3/18/2014						--	--	1344.00
	3/27/2014						--	--	1343.75

Please refer to notes at end of table.

Table B-1
Groundwater Gauging Data
Andover Colt Court Release Site
Andover, Kansas

Well ID	Measurement Date	Casing Diameter (inches)	Top of Casing Elevation (feet)[1]	Total Depth (feet bgs)	Screen Interval (feet bgs)	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	SPH Thickness (feet)	Groundwater Elevation (feet MSL)
									Pond Stage (feet MSL)
Stormwater Pond (cont.)	4/3/2014	NA	NA	NA	NA	NA	--	--	1344.00
	4/7/2014						--	--	1343.75
	4/17/2014						--	--	1343.50
	4/22/2014						--	--	1343.50
	4/29/2014						--	--	1345.00
	5/8/2014						--	--	Below gauge
	5/13/2014						--	--	Below gauge
	5/20/2014						--	--	Below gauge
	5/29/2014						--	--	1343.75
	6/3/2014						--	--	1344.50
	6/10/2014						--	--	1344.75
	6/18/2014						--	--	1344.50
	6/24/2014						--	--	1344.50
	7/1/2014						--	--	1344.60
	7/10/2014						--	--	1344.75
	7/15/2014						--	--	1344.50
	7/22/2014						--	--	1344.50
	7/31/2014						--	--	1344.50
	8/5/2014						--	--	1344.25
	8/14/2014						--	--	1344.50
	8/20/2014						--	--	1344.50
	8/26/2014						--	--	1344.25
	9/3/2014						--	--	1344.50
	9/10/2014						--	--	1344.25
	9/17/2014						--	--	1344.00
	9/24/2014						--	--	1344.00
	10/1/2014						--	--	1344.00
	10/8/2014						--	--	1344.25
	10/16/2014						--	--	1344.50
	10/21/2014						--	--	1344.50
	10/28/2014						--	--	1344.50
	11/4/2014						--	--	1344.50
	11/11/2014						--	--	1344.25
	11/25/2014						--	--	1344.00
	12/3/2014						--	--	1344.00
	12/9/2014						--	--	1344.25
	12/17/2014						--	--	1344.25
	12/23/2014						--	--	1344.25
	12/23/2014						--	--	1344.25
	12/31/2014						--	--	1344.25
	1/7/2015								NM
	1/14/2015								NM
	1/20/2015								1344.00
	1/28/2015								1343.80
	2/4/2015								1344.15
	2/9/2015								1344.10

Notes:

1. feet MSL = Feet above mean sea level (NAVD88).
2. bgs = below ground surface.
3. -- = No SPH
4. DRY = Well was dry.
5. Pond elevation is measured directly from a staff gauge in the pond (in 0.25-foot increments). The top of the staff gauge is 1347.59 feet above mean sea level.
6. NA = Not applicable.
7. NM = Not measured.

Table B-2
Separate- and Dissolved-Phase Recovery Data – 2006 N Colt Court
June 2012 through June 2013
Andover Colt Court Release Site
Andover, Kansas

Well	Date	Approximate SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	Fluid Removal Technology
Irrigation Well - 2006 N Colt Court	6/14/2012	20	220	Mobile vacuum truck/hand bailer
	6/15/2012	20	220	Mobile vacuum truck/hand bailer
	6/28/2012	10	10	Hand bailer
	7/2/2012	10	10	Hand bailer
	7/3/2012	5	5	Hand bailer
	7/5/2012	8	8	Hand bailer
	7/5/2012	5	80	Mobile vacuum truck
	8/15/2012	15	15	Hand bailer
	8/20/2012	5	5	Hand bailer
	11/8/2012	15	15	Hand bailer
	11/15/2012	15	15	Hand bailer
	11/21/2012	15	15	Hand bailer
	11/30/2012	7	7	Hand bailer
	12/7/2012	4	8	Hand bailer
	12/14/2012	2	4	Hand bailer
	12/21/2012	2	4	Hand bailer
	12/28/2012	1.5	4	Hand bailer
	1/4/2013	1	2	Hand bailer
	1/17/2013	1.5	4	Hand bailer
	2/1/2013	2	4	Hand bailer
	2/13/2013	3	5	Hand bailer
	3/15/2013	10	11	Hand bailer
	3/20/2013	5	5	Hand bailer
	4/5/2013	8	9	Hand bailer
	4/12/2013	1	5	Hand bailer
	4/25/2013	4	6	Hand bailer
	5/10/2013	9	11	Hand bailer
	5/17/2013	4	5	Hand bailer
	5/21/2013	1	3	Hand bailer
	6/5/2013	1	3	Hand bailer
Total Fluids Recovered	--	210	716	--

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interval
3. The volume of SPH removed by hand bailing was measured.
4. NM = Not measured.

Table B-3
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
6/12/2013	42.19	41.38	0.81	8.0	NM	0.00	Mobile vacuum truck and hand bailing
6/21/2013	43.73	43.40	0.33	0.8	NM	0.00	Mobile vacuum truck
6/26/2013	43.59	43.16	0.43	1.1	NM	0.00	Mobile vacuum truck
7/2/2013	49.31	49.01	0.30	0.8	NM	0.00	Mobile vacuum truck
7/12/2013	55.11	54.82	0.29	0.7	NM	0.00	Mobile vacuum truck
7/17/2013	55.10	54.88	0.22	0.5	NM	0.01	Mobile vacuum truck
8/1/2013	46.35	46.15	0.20	0.5	NM	0.01	Mobile vacuum truck
8/8/2013	41.49	--	0.00	0.0	NM	0.00	Mobile vacuum truck
8/13/2013	39.10	--	0.00	0.0	NM	0.00	Mobile vacuum truck
8/20/2013	37.40	--	0.00	0.0	NM	0.00	Mobile vacuum truck
8/28/2013	43.81	--	0.00	0.0	NM	0.0	Mobile vacuum truck
9/5/2013	47.86	--	0.00	0.0	NM	0.0	Mobile vacuum truck
9/11/2013	50.61	--	0.00	0.0	NM	0.0	Mobile vacuum truck
9/17/2013	49.06	--	0.00	0.0	NM	0.0	Mobile vacuum truck
9/23/2013	48.97	--	0.00	0.0	NM	0.0	Mobile vacuum truck
9/30/2013	48.63	--	0.00	0.0	NM	0.0	Mobile vacuum truck
10/10/2013	49.16	49.01	0.15	0.3	NM	0.0	Mobile vacuum truck
10/17/2013	48.40	--	0.00	0.0	NM	0.0	Mobile vacuum truck
10/24/2013	48.71	--	0.00	0.0	NM	0.0	Mobile vacuum truck
10/31/2013	44.86	--	0.00	0.0	NM	0.0	Mobile vacuum truck
11/6/2013	43.66	--	0.00	0.0	NM	0.0	Mobile vacuum truck
11/13/2013	41.82	--	0.00	0.0	NM	0.0	Mobile vacuum truck
11/20/2013	40.60	--	0.00	0.0	NM	0.0	Mobile vacuum truck
11/26/2013	40.30	40.19	0.11	0.3	NM	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-3
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
12/3/2013	39.44	sheen	0.00	0.0	NM	0.0	Mobile vacuum truck
12/11/2013	39.63	sheen	0.00	0.0	NM	0.0	Mobile vacuum truck
12/19/2013	39.23	--	0.00	0.0	NM	0.0	Mobile vacuum truck
12/27/2013	39.38	39.34	0.04	0.1	NM	0.0	Mobile vacuum truck
1/3/2014	NM	NM	NM	--	50.0	NM	Mobile vacuum truck
1/10/2014	39.89	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
1/16/2014	39.83	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
1/21/2014	39.34	--	0.00	0.0	75.0	0.0	Mobile vacuum truck
1/30/2014	38.85	--	0.00	0.0	50.0	0.0	Mobile vacuum truck
2/12/2014	39.44	39.43	0.01	0.0	100.0	0.0	Mobile vacuum truck
2/19/2014	39.37	39.36	0.01	0.0	75.0	0.0	Mobile vacuum truck
2/26/2014	39.64	39.60	0.04	0.1	100.0	0.0	Mobile vacuum truck
3/4/2014	39.76	39.73	0.03	0.1	75.0	0.0	Mobile vacuum truck
3/13/2014	39.89	39.86	0.03	0.1	100.0	0.0	Mobile vacuum truck
3/18/2014	39.65	39.61	0.04	0.1	50.0	0.0	Mobile vacuum truck
3/27/2014	39.73	39.69	0.04	0.1	100.0	0.0	Mobile vacuum truck
4/3/2014	40.46	40.42	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/8/2014	41.14	41.11	0.03	0.1	50.0	0.0	Mobile vacuum truck
4/9/2014	41.47	41.43	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/10/2014	41.82	41.76	0.06	0.2	50.0	0.0	Mobile vacuum truck
4/11/2014	43.25	43.21	0.04	0.1	50.0	0.0	Mobile vacuum truck
4/17/2014	43.17	43.13	0.04	0.1	25.0	0.0	Mobile vacuum truck
4/22/2014	44.95	44.90	0.05	0.1	25.0	0.0	Mobile vacuum truck
4/29/2014	46.43	46.36	0.07	0.2	25.0	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-3
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
5/8/2014	51.28	51.15	0.13	0.3	25.0	0.0	Mobile vacuum truck
5/13/2014	51.83	51.66	0.17	0.4	50.0	0.0	Mobile vacuum truck
5/20/2014	54.12	53.94	0.18	0.4	25.0	0.0	Mobile vacuum truck
5/21/2014	55.28	55.11	0.17	0.4	25.0	0.0	Mobile vacuum truck
5/29/2014	52.24	52.06	0.18	0.4	0.0	0.0	Mobile vacuum truck
5/30/2014	53.32	53.13	0.19	0.5	0.0	0.0	Mobile vacuum truck
6/2/2014	52.65	52.50	0.15	0.4	75.0	0.0	Mobile vacuum truck
6/3/2014	52.63	52.49	0.14	0.4	25.0	0.0	Mobile vacuum truck
6/10/2014	48.48	48.31	0.17	0.4	50.0	0.0	Mobile vacuum truck
6/11/2014	49.10	48.95	0.15	0.4	25.0	0.0	Mobile vacuum truck
6/18/2014	46.34	46.20	0.14	0.4	25.0	0.0	Mobile vacuum truck
6/19/2014	47.60	47.43	0.17	0.4	0.0	0.0	Mobile vacuum truck
6/24/2014	47.80	47.67	0.13	0.3	25.0	0.0	Mobile vacuum truck
6/25/2014	46.94	46.81	0.13	0.3	25.0	0.0	Mobile vacuum truck
7/1/2014	44.64	44.50	0.14	0.3	0.0	0.0	Mobile vacuum truck
7/2/2014	44.78	44.64	0.14	0.4	0.0	0.0	Mobile vacuum truck
7/10/2014	46.12	46.03	0.09	0.2	10.0	0.0	Mobile vacuum truck
7/11/2014	47.02	46.91	0.11	0.3	0.0	0.0	Mobile vacuum truck
7/15/2014	46.41	46.33	0.08	0.1	50.0	0.0	Mobile vacuum truck
7/16/2014	47.55	47.41	0.14	0.3	50.0	0.0	Mobile vacuum truck
7/22/2014	48.32	48.21	0.11	0.3	25.0	0.0	Mobile vacuum truck
7/23/2014	49.38	49.27	0.11	0.3	25.0	0.0	Mobile vacuum truck
7/31/2014	49.18	49.06	0.12	0.3	25.0	0.0	Mobile vacuum truck

Please refer to notes at end of table.

Table B-3
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
8/1/2014	51.04	--	0.00	0.0	25.0	0.0	Mobile vacuum truck
8/5/2014	52.05	51.92	0.13	0.1	25.0	0.1	Mobile vacuum truck
8/6/2014	52.92	52.79	0.13	0.3	25.0	sheen	Mobile vacuum truck
8/14/2015	52.94	52.79	0.15	0.2	25.0	0.1	Mobile vacuum truck
8/15/2014	51.40	51.31	0.09	0.2	25.0	0.0	Mobile vacuum truck
8/20/2014	54.23	54.09	0.14	0.3	25.0	0.0	Mobile vacuum truck
8/21/2014	55.02	54.98	0.04	0.1	0.0	0.0	Mobile vacuum truck
8/26/2014	58.27	58.20	0.07	0.1	25.0	0.0	Mobile vacuum truck
8/27/2014	58.57	58.39	0.18	0.4	25.0	0.0	Mobile vacuum truck
9/3/2014	57.48	57.29	0.19	0.4	25.0	0.0	Mobile vacuum truck
9/4/2014	58.28	58.22	0.06	0.2	25.0	0.0	Mobile vacuum truck
9/10/2014	58.12	57.94	0.18	0.4	0.0	0.0	Mobile vacuum truck
9/11/2014	59.15	58.96	0.19	0.4	0.0	0.0	Mobile vacuum truck
9/16/2014	58.14	57.98	0.16	0.4	0.0	0.0	Mobile vacuum truck
9/17/2014	58.95	58.75	0.20	0.5	25.0	0.0	Mobile vacuum truck
9/24/2014	59.17	58.95	0.22	0.5	0.0	sheen	Mobile vacuum truck
9/25/2014	60.58	60.35	0.23	0.6	0.0	0.0	Mobile vacuum truck
10/1/2014	60.51	60.30	0.21	0.4	25.0	0.1	Mobile vacuum truck
10/2/2014	60.53	60.47	0.06	0.2	25.0	0.0	Mobile vacuum truck
10/8/2014 (a.m.)	60.39	60.18	0.21	0.3	25.0	0.1	Mobile vacuum truck
10/8/2014 (p.m.)	60.24	60.12	0.12	0.2	25.0	0.1	Mobile vacuum truck
10/17/2014	--	--	--	--	25.0	--	Mobile vacuum truck

Please refer to notes at end of table.

Table B-3
Separate- and Dissolved-Phase Recovery Data - 2006 N. Colt Court
June 2013 through December 2014
Andover Colt Court Release Site
Andover, Kansas

Date	Depth to Groundwater (feet bgs)	Depth to SPH (feet)	Product Thickness (feet)	Minimum SPH Recovered (gallons)	Total Fluids Recovered (SPH and Water)	SPH Thickness After Removal Event	Fluid Removal Technology
10/18/2014	56.69	56.56	0.13	0.3	25.0	0.0	Mobile vacuum truck
10/21/2014	56.52	56.35	0.17	0.2	25.0	0.1	Mobile vacuum truck
10/22/2014	56.62	56.43	0.19	0.3	25.0	0.1	Mobile vacuum truck
10/30/2014	56.75	56.43	0.32	0.5	25.0	0.1	Mobile vacuum truck
11/4/2014	56.21	56.09	0.12	0.1	25.0	0.1	Mobile vacuum truck
11/11/2014	54.45	54.35	0.10	0.2	25.0	0.0	Mobile vacuum truck
11/18/2014	53.11	53.00	0.11	0.3	25.0	0.0	Mobile vacuum truck
11/25/2014	50.35	50.23	0.12	0.3	25.0	0.0	Mobile vacuum truck
12/3/2014	49.23	49.12	0.11	0.2	50.0	0.0	Mobile vacuum truck
12/3/2014	49.23	49.12	0.11	0.2	50.0	0.01	Mobile vacuum truck
12/9/2014	48.71	48.61	0.10	0.2	50.0	0.03	Mobile vacuum truck
12/17/2014	47.93	47.88	0.05	0.1	25.0	0.01	Mobile vacuum truck
12/23/2014	47.13	47.06	0.07	0.2	25.0	0.00	Mobile vacuum truck
12/31/2014	47.03	46.98	0.05	0.1	50.0	0.00	Mobile vacuum truck
			Total Fluids Recovered	32	2610		

Notes:

1. SPH = Separate-phase hydrocarbons.
2. The SPH volume removed using vacuum technology was calculated by measuring the SPH thicknesses in the well before and after each event and estimating the volume of SPH in the corresponding gravel pack interval
3. NM = Not measured.
4. -- = No SPH.

Appendix C

SPH Skimmer Specifications

Hydro-Skimmer™

GEOTECHNICAL SERVICES

THE EQUIPMENT SOURCE SINCE 1984

Operational Instructions

For

Hydro-Skimmer

U.S. Patent No. 5,322,388

REV 1-2011

Geotechnical Services
2852 Walnut Ave., #E-1
Tustin, CA 92780
Phone: (714)832-5610
Fax: (714)832-8766
Toll Free: (800)524-9111

Hydro-Skimmer™

The Hydro-Skimmer passive recovery device is a patented one piece counterbalanced skimmer used to recover light floating hydrocarbons down to a sheen. The Hydro-Skimmer was designed to provide faster servicing of the hydrophobic element, higher product recovery rates, larger collection volumes which extend the time between servicing, greater ability to operate in wells with large water table fluctuations (entire device follows the water/product interface) or wells with little water. The Hydro-Skimmer design offers a specially designed chamber which prevents hydrostatic forces from forcing water through the hydrophobic element. This vent chamber also has replaced the requirement for an external vent tube. Our skimmers contain no contaminating glues of any kind.

Features:

- No power source required: uses canister collection method
- Hydrophobic skimming element: 10 inch recovery zone, recovers down to a sheen
- One piece counterbalance design: no moving parts, tracks water/product interface up to 48”
- Internal vent chamber prevents hydrostatic forces from forcing water through skimmer element, eliminates external vent tube
- Choice of skimmer housing material: clear or opaque
- 30 Day warranty for manufacture defects. (excluding hydrophobic element)

Specifications:

Well Diameter	***Model #***	***Collection Capacity***	***Overall Length***	***Actual Diameter***	***Minimum Water Depth***	***Dry Weight***
2”	200	.072 gal	34”	1.66”	22”	2 lbs
2”	201	.261 gal	66”	1.66”	51”	5 lbs
2”	202	.430 gal	96”	1.66”	80”	8 lbs
4”	400	.428 gal	36”	3.50”	20”	5 lbs
4”	401	1.147 gal	64”	3.50”	46”	16 lbs
4”	402	2.157 gal	96”	3.50”	80”	24 lbs

Note: Please add a “C” after the model number to designate clear housing.

RULES FOR SAFE OPERATION

1. Slowly lower skimmer into well.
2. Do not squeeze or smash hydrophobic element.
3. Remove separator only when necessary.

Hydro-Skimmer™

Installation Procedure

Please refer to Figure 1 on page 4 for more detail.

1. **Take placement measurements:**
   A. **Total well depth to top of well casing**
   B. **Depth to Water**
   C. **Depth to hydrocarbon product**
   Taking the above measurements is important because when installing the Hydro-Skimmer, the displacement of water may create a false water table and cause the Hydro-Skimmer to be installed at an improper height, impeding collection.

1.2 Attach safety cord to eye bolt at top of Hydro-Skimmer.

1.3 Installation can be accomplished more easily with the use of an interface meter to determine that the water/hydrocarbon interface comes within three inches of the lower slotted area of the Hydro-Skimmer. If interface meter is not available, <u>SLOWLY</u> lower Hydro-Skimmer into well, allowing it to locate its own buoyancy.

1.4 Remove Hydro-Skimmer from well. The Hydro-Skimmer is preweighted to be buoyant with the water/hydrocarbon interface, ideally within three inches of the lower slotted area of the skimmer. If the Hydro-Skimmer is not resting in this position, the following conditions should be considered:

A. **If the hydrocarbon thickness as measured in Step 1..1 exceeds 12", the Hydro-Skimmer will ride above the suggested level but will function properly as it will weight itself when collection of hydrocarbon product begins.**
B. **If the hydrocarbon product in in excess of 6", the Hydro-Skimmer will collect to capacity in approximately 1 hour, thus requiring the collection chamber to be emptied.**
C. **If water salinity does not allow the Hydro-Skimmer to rest within the recommended water/hydrocarbon area, galvanized washers (included in shipment) may need to be threaded onto the safety connector to weight the unit so that EFFECTIVE collection may take place.**

1.5 After above adjustments have been made, reinsert the Hydro-Skimmer into well allowing 4" of slack in safety connector between the two eye bolts when the well cap is in its installed position.

Hydro-Skimmer™

Installation Procedure Cont.

1.6 Removal and collection procedures:

A. Remove Hydro-Skimmer from well.

B. Hold unit upright over recommended hydrocarbon collection container and open valve at base, allowing product to drain into container.

C. Close valve and reinsert Hydro-Skimmer into well following installation procedures as outlined above.

1.7 Maintenance of skimmer element:

The Hydro-Skimmer is designed with a removable hydrophobic element, thus allowing it to be cleaned. Remove hydrophobic element only when necessary. Replacement elements are available if the element becomes damaged.

A. Remove upper vent chamber cap from Hydro-Skimmer. With your fingers, carefully pull up on the inner aluminum tube. This will disengage the hydrophobic element from an O-ring seal in the lower housing.

B. The element may be sprayed or immersed in any EPA approved hydrocarbon cleaning solution. If immersed in a solution, use a gentle rotation action to facilitate cleaning. DO NOT squeeze or mash on the plastic webbing area.

C. To re-install the hydrophobic element, place a non-hydrocarbon lubricant such as soap on the lower two inches of the aluminum tubing. Check bevel on lower edge of tubing to insure it is free of burrs that might cut O-ring in lower housing. Place element in Hydro-Skimmer and align with hole in lower housing. Gently push down on element (approximately one inch) until it is fully engaged in the lower housing. The element is held in place when the upper vent chamber cap is fully screwed onto the top of the Hydro-Skimmer.

Hydro-Skimmer™

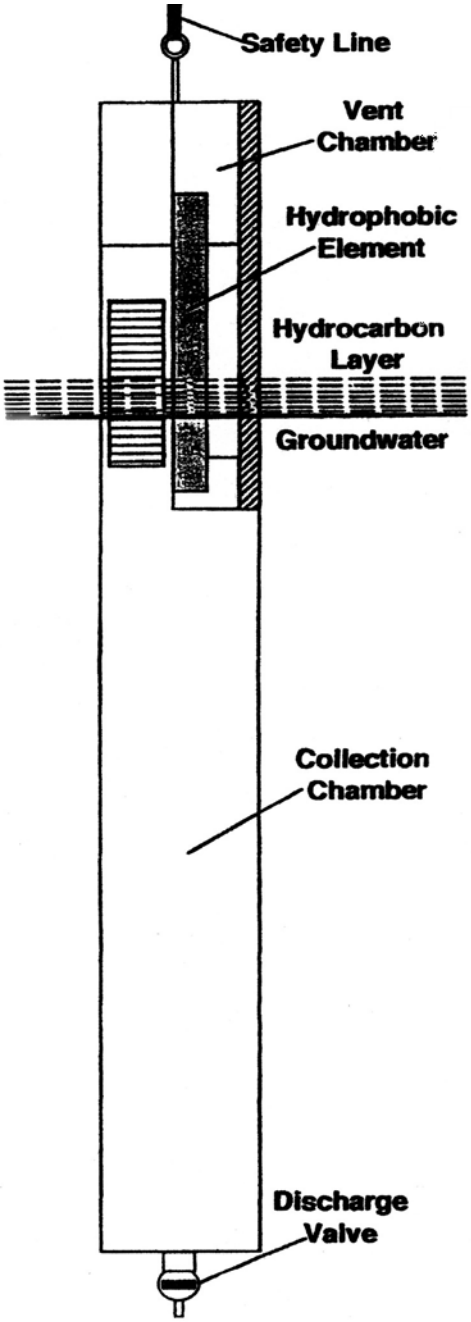
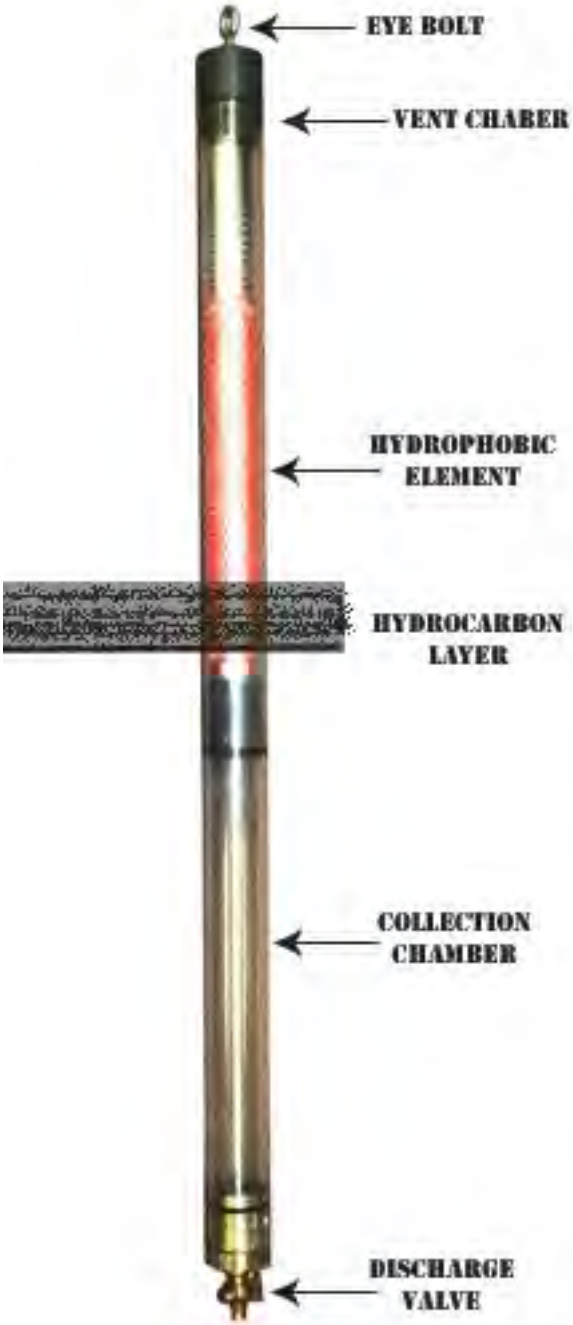


Figure 1

Hydro-Skimmer™



Appendix D

Laboratory Analytical Report and QA/QC Report

Appendix D — Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

1.0 Introduction

This appendix documents the results of a quality assurance (QA) review of the analytical data for groundwater samples that were collected during groundwater monitoring activities that were performed in February 2015 at the Quail Crossing neighborhood (the Neighborhood) in Andover, Kansas (Site).

The data reviewed herein include are representative of: (1) groundwater samples collected from monitoring wells; and (2) groundwater samples collected from Neighborhood irrigation wells. The groundwater samples collected were analyzed by ALS Environmental (ALS) of Houston, Texas.

The QA review outlines the applicable quality control criteria utilized during the data review process, as well as any deviations from those criteria. Examination and validation of the laboratory summary reports include:

- Analytical methods;
- Reporting limits;
- Detection limits and estimated concentrations;
- Sample holding times;
- Custody records and sample receipt;
- Spikes, blanks, and surrogates; and
- Duplicates.

The QA review did not include a review of calibration or raw data. Section 2.0 lists the analytical methods used in sample analysis. Section 3.0 defines the QA terms used in this report. Section 4.0 provides the QA results for each sampling event.

2.0 Analytical Methods

2.1 Groundwater Analyses

Chemical analyses performed on groundwater samples consisted of the following:

- Volatile petroleum hydrocarbons as gasoline (GRO) by IA OA-1; and
- 1,2,4-Trimethylbenzene, 1,2-dichloroethane, 1,3,5-trimethylbenzene, 2-butanone, cyclohexane, isopropylbenzene methylcyclohexane BTEX (benzene, toluene, ethylbenzene, total xylenes), naphthalene, n-butylbenzene, n-propylbenzene by U.S. Environmental Protection Agency (EPA) Method SW846 8260.

Samples were also analyzed for a range of parameters that can be used to evaluate natural attenuation processes. These parameters include:

- Methane by Method RSK-175;
- Ammonia by Method SM4500;
- Nitrate, phosphorus, and sulfate by Method E300; and
- Potassium by EPA Method SW6020.

The natural attenuation parameters will be presented in the forthcoming groundwater pilot test report and are not further discussed herein.

3.0 Quality Assurance Objectives and Review Procedures

The general QA objectives for this project were to develop and implement procedures for obtaining, evaluating, and confirming the usability of environmental data of a specified quality. To collect such information, analytical data must have an appropriate degree of accuracy and reproducibility, samples collected must be representative of actual field conditions, and samples must be collected and analyzed using unbroken chain-of-custody (COC) procedures.

Reporting limits and analytical results were compared to action levels for each parameter. Precision, accuracy, representativeness, completeness, and comparability parameters used to indicate data quality are defined below.

Reporting Limits. Method reporting limits (MRLs) are set by the laboratory and are based on instrumentation abilities, sample matrix, and suggested MRLs by the EPA or KDHE. In some cases, the MRLs are raised due to high concentrations of analytes in the samples or matrix interferences. MRLs are generally consistent with industry standards and below promulgated regulatory standards when possible.

Detection Limits and Estimated Concentrations. The method detection limit (MDL) is the lowest quantity of a substance that can be distinguished from the absence of that substance within a stated confidence limit. The MDL is estimated from the mean of the blank, the standard deviation of the blank and some confidence factor.

Holding Times. Holding times are the length of time a sample can be stored after collection and prior to analysis without significantly affecting the analytical results. Holding times vary by analyte, sample matrix, and analytical methodology.

Custody Records and Sample Receipt. COC refers to the document or paper trail showing the collection, custody, control, transfer, analysis, and disposition of physical materials. The sample receipt identifies the condition of samples upon arrival at the analytical laboratory.

Method Blanks. A method, or laboratory, blank is a sample prepared in the laboratory along with the field samples and analyzed for the same parameters at the same time. It is used to assess for laboratory introduced contamination.

Laboratory Control Sample. A laboratory control sample (LCS) is analyzed by the laboratory to assess the accuracy of the analytical equipment. The sample is prepared from an analyte-free matrix that is then spiked with known levels of the constituents of interest (i.e., a standard). The concentrations are measured and the results compared to the known spiked levels. This comparison is expressed as percent recovery.

Laboratory Control Sample Duplicate. A laboratory control sample duplicate [LCSD]) is prepared and analyzed along with the LCS. The LCS and LCSD data are compared to assess the precision of the analytical method (i.e., the relative percent difference [RPD]).

Matrix Spike Analyses. Matrix spike (MS) analyses are performed on samples submitted to the laboratory that are of the same matrix as the field sample. The MS sample is spiked with known levels of the constituents of interest and analyzed to assess the potential for matrix interference with recovery or detection of the constituents of interest and the accuracy of the determination. The spiked sample results are compared to the expected result (i.e., sample concentration plus spike amount) and reported as percent recovery.

Lab Duplicate. A laboratory duplicate is a second analysis of a QA/QC sample, which serves as an internal check on laboratory quality as well as potential variability of the sample matrix. The laboratory duplicate is analyzed and compared to the primary sample results to assess the precision of the analytical method. This comparison can be expressed by the RPD between the primary and duplicate samples.

Surrogate Recovery. Surrogates are organic compounds that are similar in chemical composition to the analytes of interest and spiked into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference on a sample-specific basis.

Field Duplicate. A field duplicate is a second field sample collected from a sampling location (e.g.., a well or soil core). Field duplicate samples serve as a check on laboratory quality as well as potential variability of the sample matrix. The field duplicate is analyzed and compared to the primary sample to assess the precision of the analytical method. This comparison can be expressed by the RPD between the original and duplicate samples.

Trip Blanks. A trip blank is a sample prepared in the laboratory that is shipped along with the sample bottles to the field, kept with the soil and groundwater samples during collection, and shipped back to the laboratory with the field samples. The trip blank is analyzed for constituents of interest, along with the primary samples, to assess if detected contaminants may have been the result of contamination of the samples during transport or storage.

Equipment Blank. An equipment blank is a sample collected in the field along with the primary samples and analyzed for the same parameters. Equipment blanks are collected by pouring deionized water over or through decontaminated equipment used to collect the samples, into laboratory supplied containers. The equipment blank is used to assess if field samples may have been affected by inadequate decontamination of field equipment.

4.0 QA/QC Review Results

4.1 Groundwater Lab Report HS15020508

The data reviewed includes groundwater samples collected from monitoring wells on February 12, 2015. Samples were analyzed for GRO and volatile organic compounds (VOCs) using the methods listed in Section 2.1. These samples were also analyzed for MNA parameters (alkalinity, iron, methane, ammonia and nitrogen, total organic carbon, potassium, phosphorus, and sulfate); however, those data are not presented in this report and are not reviewed herein. As discussed in Section 2.0, the natural attenuation parameters are not evaluated herein.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within applicable holding times.

Custody Records and Sample Receipt. The samples were received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. The RPD for the MS and MS duplicate (MSD) were within control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicate. A field duplicate was not collected.

Trip Blank. Trip blanks were not analyzed. Target compounds were not detected in primary samples, which act as trip blanks, as sample containers and coolers were delivered together.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

4.2 Groundwater Lab Report HS15020514

The data reviewed includes groundwater samples collected on February 10 and 11, 2015. Samples were analyzed for GRO and VOCs using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within applicable holding times.

Custody Records and Sample Receipt. The samples were received below the required temperature of 4°C and consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. The MS/MSD were within control limits for constituents and samples.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicates. A field duplicate was collected from monitoring wells MW-2 and MW-6. Constituents were not detected in the primary and duplicate samples.

Trip Blank. No trip blank was analyzed. Target compounds were not detected in primary samples, which act as trip blanks, as sample containers and coolers were delivered together.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met and the data are of adequate quality for use in this project.

4.3 Groundwater Lab Report HS15020551

The data reviewed includes groundwater samples collected on February 11 and 12. Samples were analyzed for GRO and VOCs using the methods listed in Section 2.1.

Reporting Limits. MRLs were not elevated for samples. No data are flagged.

Detection Limits and Estimated Concentrations. MDLs and concentrations were not reported as estimates.

Holding Times. The samples were analyzed within all applicable holding times.

Custody Records and Sample Receipt. The samples were received within the required temperature limit of 4°C. The samples were consistent with the accompanying COC.

Method Blanks. No compounds were detected in the method blanks. No data are flagged.

Laboratory Control Sample. Percent recoveries of the LCS were within control limits.

Laboratory Control Sample Duplicate. Percent recoveries of the LCSD were within control limits. LCS/LCSD RPDs were within control limits for reported constituents.

Matrix Spike Analyses. The MS/MSD samples were within control limits.

Lab Duplicate. No lab duplicate was analyzed.

Surrogate Recovery. Surrogate recoveries were within control limits for samples.

Field Duplicate. Field duplicates were analyzed from samples HOA-1 and 2020 N Ruger Court. Constituents were not detected in the primary and duplicate samples.

Trip Blank. Trip blanks were not analyzed. Target compounds were not detected in several primary samples, which acts as a trip blank, as sample containers and coolers were delivered together.

Equipment Blank. No reusable equipment was utilized during this sampling event; therefore, an equipment blank was not collected.

Conclusion. In conclusion, the overall QA objectives have been met for the GRO and VOC analyses and the data are of adequate quality for use in this project.

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

February 20, 2015

Samuel Jackson
Apex Companies
3015 SW First Avenue
Portland, OR 97201

Work Order: **HS15020508**

Laboratory Results for: **E3CE-0065 Andover Release Site**

Dear Samuel,

ALS Environmental received 4 sample(s) on Feb 13, 2015 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,

Generated By: Jumoke.Lawal

Ana L. Spencer

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020508

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15020508-01	MW-14	Water		12-Feb-2015 12:35	13-Feb-2015 16:25	☐
HS15020508-02	MW-1	Water		12-Feb-2015 13:30	13-Feb-2015 16:25	☐
HS15020508-03	MW-12	Water		12-Feb-2015 14:15	13-Feb-2015 16:25	☐
HS15020508-04	Trip blank - 012315-80	Water		12-Feb-2015 00:00	13-Feb-2015 16:25	☐

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020508

CASE NARRATIVE

GC Semivolatiles by Method RSK-175

Batch ID: R249843

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

GC Volatiles by Method IA OA-1

Batch ID: R249750

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

GCMS Volatiles by Method SW8260

Batch ID: R249749

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

Batch ID: R249845

Sample ID: **MW-1 (HS15020508-02)**
- Lowest piratical dilution due to matrix.

Batch ID: R249939

Sample ID: **HS15020654-06**
- MSD was analyzed out of tune time due to auto sampler malfunction.

Metals by Method SW6020

Batch ID: 90569

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

Batch ID: 90592

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

WetChemistry by Method SM2320B

Batch ID: R249833

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

WetChemistry by Method E415.1

Batch ID: R249983

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

WetChemistry by Method SM4500 NH3-D

Batch ID: R249777

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

WetChemistry by Method E300

Batch ID: R249685

Sample ID: **HS15020509-05**
- MS and MSD are for an unrelated sample

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-14	Lab ID:HS15020508-01
Collection Date:	12-Feb-2015 12:35	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 09:12
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 09:12
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 09:12
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 09:12
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 09:12
Surr: 1,2-Dichloroethane-d4	*108*		*71-125*	*%REC*	*1*	*17-Feb-2015 09:12*
Surr: 4-Bromofluorobenzene	*106*		*70-125*	*%REC*	*1*	*17-Feb-2015 09:12*
Surr: Dibromofluoromethane	*95.8*		*74-125*	*%REC*	*1*	*17-Feb-2015 09:12*
Surr: Toluene-d8	*113*		*75-125*	*%REC*	*1*	*17-Feb-2015 09:12*
ALKALINITY BY SM2320B		**Method:SM2320B**				Analyst: MJC
Alkalinity, Bicarbonate (As CaCO3)	**308**		**5.00**	**mg/L**	1	18-Feb-2015 10:36
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:36
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:36
Alkalinity, Total (As CaCO3)	**308**		**5.00**	**mg/L**	1	18-Feb-2015 10:36
DISSOLVED METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 17-Feb-2015		Analyst: JDE
Iron	ND		0.200	mg/L	1	18-Feb-2015 15:18
DISSOLVED GASES BY RSK-175		**Method:RSK-175**				Analyst: MYA
Methane	**1.81**		**0.500**	**ug/L**	1	17-Feb-2015 11:56
AMMONIA AS N BY SM4500 NH3-D (ISE)		**Method:SM4500 NH3-D**				Analyst: KMU
Nitrogen, Ammonia (as N)	ND		0.20	mg/L	1	17-Feb-2015 12:00
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**				Analyst: KMU
Organic Carbon, Total	ND		1.00	mg/L	1	20-Feb-2015 12:31
ICP-MS METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 16-Feb-2015		Analyst: RPM
Potassium	**3.08**		**0.200**	**mg/L**	1	17-Feb-2015 11:07
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 10:57
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 10:57*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-14	Lab ID:HS15020508-01
Collection Date:	12-Feb-2015 12:35	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Nitrogen, Nitrate (As N)	**4.50**		**0.100**	**mg/L**	1	14-Feb-2015 00:34
Phosphorus, Orthophosphate (As P)	ND		0.100	mg/L	1	14-Feb-2015 00:34
Sulfate	**29.8**		**0.500**	**mg/L**	1	14-Feb-2015 00:34

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-1	Lab ID:HS15020508-02
Collection Date:	12-Feb-2015 13:30	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.010	mg/L	10	18-Feb-2015 23:10
1,2-Dichloroethane	ND		0.010	mg/L	10	18-Feb-2015 23:10
1,3,5-Trimethylbenzene	ND		0.010	mg/L	10	18-Feb-2015 23:10
2-Butanone	ND		0.020	mg/L	10	18-Feb-2015 23:10
Benzene	**0.26**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
Cyclohexane	ND		0.010	mg/L	10	18-Feb-2015 23:10
Ethylbenzene	**0.077**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
Isopropylbenzene	ND		0.010	mg/L	10	18-Feb-2015 23:10
m,p-Xylene	**0.64**		**0.020**	**mg/L**	10	18-Feb-2015 23:10
Methylcyclohexane	**0.016**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
Naphthalene	**0.022**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
n-Butylbenzene	ND		0.010	mg/L	10	18-Feb-2015 23:10
n-Propylbenzene	ND		0.010	mg/L	10	18-Feb-2015 23:10
o-Xylene	**0.36**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
Toluene	**0.99**		**0.010**	**mg/L**	10	18-Feb-2015 23:10
Xylenes, Total	**0.99**		**0.030**	**mg/L**	10	18-Feb-2015 23:10
Surr: 1,2-Dichloroethane-d4	*105*		*71-125*	*%REC*	*10*	*18-Feb-2015 23:10*
Surr: 4-Bromofluorobenzene	*98.9*		*70-125*	*%REC*	*10*	*18-Feb-2015 23:10*
Surr: Dibromofluoromethane	*99.4*		*74-125*	*%REC*	*10*	*18-Feb-2015 23:10*
Surr: Toluene-d8	*102*		*75-125*	*%REC*	*10*	*18-Feb-2015 23:10*
ALKALINITY BY SM2320B		**Method:SM2320B**				Analyst: MJC
Alkalinity, Bicarbonate (As CaCO3)	**484**		**5.00**	**mg/L**	1	18-Feb-2015 10:53
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:53
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:53
Alkalinity, Total (As CaCO3)	**484**		**5.00**	**mg/L**	1	18-Feb-2015 10:53
DISSOLVED METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 17-Feb-2015		Analyst: JDE
Iron	ND		0.200	mg/L	1	18-Feb-2015 15:22
DISSOLVED GASES BY RSK-175		**Method:RSK-175**				Analyst: MYA
Methane	**17.6**		**0.500**	**ug/L**	1	17-Feb-2015 12:13
AMMONIA AS N BY SM4500 NH3-D (ISE)		**Method:SM4500 NH3-D**				Analyst: KMU
Nitrogen, Ammonia (as N)	ND		0.20	mg/L	1	17-Feb-2015 12:00
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**				Analyst: KMU
Organic Carbon, Total	**10.9**		**1.00**	**mg/L**	1	20-Feb-2015 12:45
ICP-MS METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 16-Feb-2015		Analyst: RPM
Potassium	**0.662**		**0.200**	**mg/L**	1	17-Feb-2015 10:45
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**5.8**		**0.050**	**mg/L**	1	16-Feb-2015 11:13
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	*1*	*16-Feb-2015 11:13*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-1	Lab ID:HS15020508-02
Collection Date:	12-Feb-2015 13:30	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Nitrogen, Nitrate (As N)	**0.128**		**0.100**	**mg/L**	1	14-Feb-2015 01:18
Phosphorus, Orthophosphate (As P)	**0.183**		**0.100**	**mg/L**	1	14-Feb-2015 01:18
Sulfate	**1.98**		**0.500**	**mg/L**	1	14-Feb-2015 01:18

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-12	Lab ID:HS15020508-03
Collection Date:	12-Feb-2015 14:15	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
1,2-Dichloroethane	ND		0.0010	mg/L	1	19-Feb-2015 16:30
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
2-Butanone	ND		0.0020	mg/L	1	19-Feb-2015 16:30
Benzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
Cyclohexane	ND		0.0010	mg/L	1	19-Feb-2015 16:30
Ethylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
Isopropylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
m,p-Xylene	**0.0054**		**0.0020**	**mg/L**	1	19-Feb-2015 16:30
Methylcyclohexane	ND		0.0010	mg/L	1	19-Feb-2015 16:30
Naphthalene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
n-Butylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
n-Propylbenzene	ND		0.0010	mg/L	1	19-Feb-2015 16:30
o-Xylene	**0.0029**		**0.0010**	**mg/L**	1	19-Feb-2015 16:30
Toluene	**0.0064**		**0.0010**	**mg/L**	1	19-Feb-2015 16:30
Xylenes, Total	**0.0083**		**0.0030**	**mg/L**	1	19-Feb-2015 16:30
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*19-Feb-2015 16:30*
Surr: 4-Bromofluorobenzene	*100*		*70-125*	*%REC*	*1*	*19-Feb-2015 16:30*
Surr: Dibromofluoromethane	*99.3*		*74-125*	*%REC*	*1*	*19-Feb-2015 16:30*
Surr: Toluene-d8	*98.7*		*75-125*	*%REC*	*1*	*19-Feb-2015 16:30*
ALKALINITY BY SM2320B		**Method:SM2320B**				Analyst: MJC
Alkalinity, Bicarbonate (As CaCO3)	**370**		**5.00**	**mg/L**	1	18-Feb-2015 10:58
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:58
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	18-Feb-2015 10:58
Alkalinity, Total (As CaCO3)	**370**		**5.00**	**mg/L**	1	18-Feb-2015 10:58
DISSOLVED METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 17-Feb-2015		Analyst: JDE
Iron	ND		0.200	mg/L	1	18-Feb-2015 15:48
DISSOLVED GASES BY RSK-175		**Method:RSK-175**				Analyst: MYA
Methane	**2.60**		**0.500**	**ug/L**	1	17-Feb-2015 12:25
AMMONIA AS N BY SM4500 NH3-D (ISE)		**Method:SM4500 NH3-D**				Analyst: KMU
Nitrogen, Ammonia (as N)	ND		0.20	mg/L	1	17-Feb-2015 12:00
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**				Analyst: KMU
Organic Carbon, Total	**1.56**		**1.00**	**mg/L**	1	20-Feb-2015 12:59
ICP-MS METALS BY SW6020A		**Method:SW6020**		Prep:SW3010A / 16-Feb-2015		Analyst: RPM
Potassium	**2.52**		**0.200**	**mg/L**	1	17-Feb-2015 11:10
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 11:29
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*1*	*16-Feb-2015 11:29*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020508
Sample ID:	MW-12	Lab ID:HS15020508-03
Collection Date:	12-Feb-2015 14:15	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Nitrogen, Nitrate (As N)	**0.421**		**0.100**	**mg/L**	1	14-Feb-2015 02:44
Phosphorus, Orthophosphate (As P)	ND		0.100	mg/L	1	14-Feb-2015 02:44
Sulfate	**56.4**		**0.500**	**mg/L**	1	14-Feb-2015 02:44

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 90569	**Test Name :** ICP-MS METALS BY SW6020A			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35		16 Feb 2015 15:43	17 Feb 2015 11:07	1
HS15020508-02	MW-1	12 Feb 2015 13:30		16 Feb 2015 15:43	17 Feb 2015 10:45	1
HS15020508-03	MW-12	12 Feb 2015 14:15		16 Feb 2015 15:43	17 Feb 2015 11:10	1
Batch ID 90592	**Test Name :** DISSOLVED METALS BY SW6020A			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35		17 Feb 2015 10:45	18 Feb 2015 15:18	1
HS15020508-02	MW-1	12 Feb 2015 13:30		17 Feb 2015 10:45	18 Feb 2015 15:22	1
HS15020508-03	MW-12	12 Feb 2015 14:15		17 Feb 2015 10:45	18 Feb 2015 15:48	1
Batch ID R249685	**Test Name :** ANIONS BY E300.0			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			14 Feb 2015 00:34	1
HS15020508-02	MW-1	12 Feb 2015 13:30			14 Feb 2015 01:18	1
HS15020508-03	MW-12	12 Feb 2015 14:15			14 Feb 2015 02:44	1
Batch ID R249749	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			17 Feb 2015 09:12	1
Batch ID R249750	**Test Name :** VPH - IOWA OA-1			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			16 Feb 2015 10:57	1
HS15020508-02	MW-1	12 Feb 2015 13:30			16 Feb 2015 11:13	1
HS15020508-03	MW-12	12 Feb 2015 14:15			16 Feb 2015 11:29	1
Batch ID R249777	**Test Name :** AMMONIA AS N BY SM4500 NH3-D (ISE)			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			17 Feb 2015 12:00	1
HS15020508-02	MW-1	12 Feb 2015 13:30			17 Feb 2015 12:00	1
HS15020508-03	MW-12	12 Feb 2015 14:15			17 Feb 2015 12:00	1
Batch ID R249833	**Test Name :** ALKALINITY BY SM2320B			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			18 Feb 2015 10:36	1
HS15020508-02	MW-1	12 Feb 2015 13:30			18 Feb 2015 10:53	1
HS15020508-03	MW-12	12 Feb 2015 14:15			18 Feb 2015 10:58	1
Batch ID R249843	**Test Name :** DISSOLVED GASES BY RSK-175			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			17 Feb 2015 11:56	1
HS15020508-02	MW-1	12 Feb 2015 13:30			17 Feb 2015 12:13	1
HS15020508-03	MW-12	12 Feb 2015 14:15			17 Feb 2015 12:25	1
Batch ID R249845	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS15020508-02	MW-1	12 Feb 2015 13:30			18 Feb 2015 23:10	10
Batch ID R249939	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS15020508-03	MW-12	12 Feb 2015 14:15			19 Feb 2015 16:30	1
Batch ID R249983	**Test Name :** TOTAL ORGANIC CARBON BY E415.1			**Matrix:** Water		
HS15020508-01	MW-14	12 Feb 2015 12:35			20 Feb 2015 12:31	1
HS15020508-02	MW-1	12 Feb 2015 13:30			20 Feb 2015 12:45	1
HS15020508-03	MW-12	12 Feb 2015 14:15			20 Feb 2015 12:59	1

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249843 **Instrument: FID-4** **Method: RSK-175**

MBLK Sample ID: **GBLKW1-150217** Units: **ug/L** Analysis Date: **17-Feb-2015 10:21**
Client ID: Run ID: **FID-4_249843** SeqNo: **3190653** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methane	ND	0.500								

LCS Sample ID: **GLCSW1-150217** Units: **ug/L** Analysis Date: **17-Feb-2015 09:43**
Client ID: Run ID: **FID-4_249843** SeqNo: **3190651** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methane	10.03	0.500	9.647	0	104	75 - 125				

LCSD Sample ID: **GLCSDW1-150217** Units: **ug/L** Analysis Date: **17-Feb-2015 10:02**
Client ID: Run ID: **FID-4_249843** SeqNo: **3190652** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methane	9.201	0.500	9.647	0	95.4	75 - 125	10.03	8.61	30	

DUP Sample ID: **HS15020400-01DUP** Units: **ug/L** Analysis Date: **17-Feb-2015 12:35**
Client ID: Run ID: **FID-4_249843** SeqNo: **3190661** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methane	3.085	0.500					2.917	5.58	30	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249750 **Instrument: FID-14** **Method: IA OA-1**

MBLK Sample ID: **GBLKW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:42**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189153** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.09639*	*0.0050*	*0.1*	*0*	*96.4*	*70 - 130*				

LCS Sample ID: **GLCSW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:10**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189152** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.009	0.050	1	0	101	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1102*	*0.0050*	*0.1*	*0*	*110*	*70 - 130*				

MS Sample ID: **HS15020514-15MS** Units: **mg/L** Analysis Date: **16-Feb-2015 16:13**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189173** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	0.9317	0.050	1	0	93.2	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1044*	*0.0050*	*0.1*	*0*	*104*	*70 - 130*				

MSD Sample ID: **HS15020514-15MSD** Units: **mg/L** Analysis Date: **16-Feb-2015 16:28**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189174** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.199	0.050	1	0	120	70 - 130	0.9317	25.1	30	
Surr: 4-Bromofluorobenzene	*0.1051*	*0.0050*	*0.1*	*0*	*105*	*70 - 130*	*0.1044*	*0.644*	*30*	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: 90569 **Instrument: ICPMS05** **Method: SW6020**

MBLK Sample ID: **MBLK-90569** Units: **mg/L** Analysis Date: **17-Feb-2015 10:32**
Client ID: Run ID: **ICPMS05_249747** SeqNo: **3189208** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	ND	0.200								

LCS Sample ID: **MLCS-90569** Units: **mg/L** Analysis Date: **17-Feb-2015 10:35**
Client ID: Run ID: **ICPMS05_249747** SeqNo: **3189209** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	4.86	0.200	5	0	97.2	80 - 120				

MS Sample ID: **HS15020508-02MS** Units: **mg/L** Analysis Date: **17-Feb-2015 10:53**
Client ID: **MW-1** Run ID: **ICPMS05_249747** SeqNo: **3189216** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	5.308	0.200	5	0.6625	92.9	80 - 120				

MSD Sample ID: **HS15020508-02MSD** Units: **mg/L** Analysis Date: **17-Feb-2015 11:02**
Client ID: **MW-1** Run ID: **ICPMS05_249747** SeqNo: **3189219** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	5.149	0.200	5	0.6625	89.7	80 - 120	5.308	3.03	20	

DUP Sample ID: **HS15020508-02DUP** Units: **mg/L** Analysis Date: **17-Feb-2015 10:48**
Client ID: **MW-1** Run ID: **ICPMS05_249747** SeqNo: **3189214** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	0.7109	0.200					0.6625	7.05	20	

PDS Sample ID: **HS15020508-02BS** Units: **mg/L** Analysis Date: **17-Feb-2015 11:05**
Client ID: **MW-1** Run ID: **ICPMS05_249747** SeqNo: **3189220** PrepDate: **16-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	11.77	0.200	10	0.6625	111	75 - 125				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: 90569 **Instrument: ICPMS05** **Method: SW6020**

SD Sample ID: **HS15020508-02 DIL SX** Units: **mg/L** Analysis Date: **17-Feb-2015 10:51**
Client ID: **MW-1** Run ID: **ICPMS05_249747** SeqNo: **3189215** PrepDate: **16-Feb-2015** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	0.5206	1.00					0.6625	0	10	J

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: 90592 **Instrument: ICPMS04** **Method: SW6020 (DISSOLVED)**

MBLK Sample ID: **MBLK-90592** Units: **mg/L** Analysis Date: **18-Feb-2015 15:09**
Client ID: Run ID: **ICPMS04_249824** SeqNo: **3191097** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	ND	0.200								

LCS Sample ID: **MLCS-90592** Units: **mg/L** Analysis Date: **18-Feb-2015 15:14**
Client ID: Run ID: **ICPMS04_249824** SeqNo: **3191098** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.93	0.200	5	0	98.6	80 - 120				

MS Sample ID: **HS15020508-02MS** Units: **mg/L** Analysis Date: **18-Feb-2015 15:36**
Client ID: **MW-1** Run ID: **ICPMS04_249824** SeqNo: **3191103** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.834	0.200	5	0.05747	95.5	75 - 125				

MSD Sample ID: **HS15020508-02MSD** Units: **mg/L** Analysis Date: **18-Feb-2015 15:40**
Client ID: **MW-1** Run ID: **ICPMS04_249824** SeqNo: **3191104** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.997	0.200	5	0.05747	98.8	75 - 125	4.834	3.31	20	

DUP Sample ID: **HS15020508-02DUP** Units: **mg/L** Analysis Date: **18-Feb-2015 15:27**
Client ID: **MW-1** Run ID: **ICPMS04_249824** SeqNo: **3191101** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	ND	0.200					0.05747	0	20	

PDS Sample ID: **HS15020508-02BS** Units: **mg/L** Analysis Date: **18-Feb-2015 15:44**
Client ID: **MW-1** Run ID: **ICPMS04_249824** SeqNo: **3191105** PrepDate: **17-Feb-2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	9.463	0.200	10	0.05747	94.1	75 - 125				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: **90592** **Instrument:** **ICPMS04** **Method:** **SW6020 (DISSOLVED)**

SD Sample ID: **HS15020508-02 DIL SX** Units: **mg/L** Analysis Date: **18-Feb-2015 15:31**
Client ID: **MW-1** Run ID: **ICPMS04_249824** SeqNo: **3191102** PrepDate: **17-Feb-2015** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	ND	1.00					0.05747	0	10	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: **R249749** **Instrument:** **VOA4** **Method:** **SW8260**

MBLK Sample ID: **VBLKW-150216** Units: **ug/L** Analysis Date: **16-Feb-2015 23:35**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189032** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
2-Butanone	ND	2.0								
Benzene	ND	1.0								
Cyclohexane	ND	1.0								
Ethylbenzene	ND	1.0								
Isopropylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylcyclohexane	ND	1.0								
Naphthalene	ND	1.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*50.42*	*1.0*	*50*	*0*	*101*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.26*	*1.0*	*50*	*0*	*96.5*	*70 - 125*				
Surr: Dibromofluoromethane	*44.46*	*1.0*	*50*	*0*	*88.9*	*74 - 125*				
Surr: Toluene-d8	*51.72*	*1.0*	*50*	*0*	*103*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249749 **Instrument: VOA4** **Method: SW8260**

LCS Sample ID: **VLCSW-150216** Units: **ug/L** Analysis Date: **16-Feb-2015 22:46**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189031** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	53.33	1.0	50	0	107	70 - 125				
1,2-Dichloroethane	51.87	1.0	50	0	104	76 - 120				
1,3,5-Trimethylbenzene	53.45	1.0	50	0	107	80 - 123				
2-Butanone	105.7	2.0	100	0	106	60 - 140				
Benzene	43.12	1.0	50	0	86.2	80 - 120				
Cyclohexane	44.73	1.0	50	0	89.5	70 - 130				
Ethylbenzene	48.92	1.0	50	0	97.8	80 - 120				
Isopropylbenzene	50.88	1.0	50	0	102	75 - 130				
m,p-Xylene	96.57	2.0	100	0	96.6	80 - 120				
Methylcyclohexane	42.1	1.0	50	0	84.2	70 - 126				
Naphthalene	57.6	1.0	50	0	115	65 - 135				
n-Butylbenzene	56.39	1.0	50	0	113	75 - 128				
n-Propylbenzene	51.71	1.0	50	0	103	75 - 130				
o-Xylene	48.33	1.0	50	0	96.7	80 - 120				
Toluene	48.35	1.0	50	0	96.7	75 - 121				
Xylenes, Total	144.9	3.0	150	0	96.6	79 - 124				
Surr: 1,2-Dichloroethane-d4	*49.44*	*1.0*	*50*	*0*	*98.9*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*51.92*	*1.0*	*50*	*0*	*104*	*70 - 125*				
Surr: Dibromofluoromethane	*47.5*	*1.0*	*50*	*0*	*95.0*	*74 - 125*				
Surr: Toluene-d8	*52.29*	*1.0*	*50*	*0*	*105*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249749 **Instrument: VOA4** **Method: SW8260**

MS Sample ID: **HS15020551-01MS** Units: **ug/L** Analysis Date: **17-Feb-2015 00:51**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189035** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	50.84	1.0	50	0	102	70 - 125				
1,2-Dichloroethane	49.15	1.0	50	0	98.3	76 - 120				
1,3,5-Trimethylbenzene	51.59	1.0	50	0	103	80 - 123				
2-Butanone	86.79	2.0	100	0	86.8	60 - 140				
Benzene	43.18	1.0	50	0	86.4	80 - 120				
Cyclohexane	44.44	1.0	50	0	88.9	70 - 130				
Ethylbenzene	48.86	1.0	50	0	97.7	80 - 120				
Isopropylbenzene	50.94	1.0	50	0	102	75 - 130				
m,p-Xylene	95.28	2.0	100	0	95.3	80 - 120				
Methylcyclohexane	44.51	1.0	50	0	89.0	70 - 126				
Naphthalene	46	1.0	50	0	92.0	65 - 135				
n-Butylbenzene	55.74	1.0	50	0	111	75 - 128				
n-Propylbenzene	51.28	1.0	50	0	103	75 - 130				
o-Xylene	47.68	1.0	50	0	95.4	80 - 120				
Toluene	47.56	1.0	50	0	95.1	75 - 121				
Xylenes, Total	143	3.0	150	0	95.3	80 - 124				
Surr: 1,2-Dichloroethane-d4	*48.39*	*1.0*	*50*	*0*	*96.8*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.52*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*47.14*	*1.0*	*50*	*0*	*94.3*	*74 - 125*				
Surr: Toluene-d8	*50.88*	*1.0*	*50*	*0*	*102*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249749 **Instrument: VOA4** **Method: SW8260**

MSD Sample ID: **HS15020551-01MSD** Units: **ug/L** Analysis Date: **17-Feb-2015 01:15**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189036** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	52.83	1.0	50	0	106	70 - 125	50.84	3.84	20	
1,2-Dichloroethane	49.28	1.0	50	0	98.6	76 - 120	49.15	0.265	20	
1,3,5-Trimethylbenzene	53.25	1.0	50	0	106	80 - 123	51.59	3.16	20	
2-Butanone	93.59	2.0	100	0	93.6	60 - 140	86.79	7.53	20	
Benzene	43.56	1.0	50	0	87.1	80 - 120	43.18	0.877	20	
Cyclohexane	45.43	1.0	50	0	90.9	70 - 130	44.44	2.2	20	
Ethylbenzene	49.29	1.0	50	0	98.6	80 - 120	48.86	0.885	20	
Isopropylbenzene	51.4	1.0	50	0	103	75 - 130	50.94	0.903	20	
m,p-Xylene	97.63	2.0	100	0	97.6	80 - 120	95.28	2.44	20	
Methylcyclohexane	44.98	1.0	50	0	90.0	70 - 126	44.51	1.06	20	
Naphthalene	54.49	1.0	50	0	109	65 - 135	46	16.9	20	
n-Butylbenzene	56.88	1.0	50	0	114	75 - 128	55.74	2.02	20	
n-Propylbenzene	52.66	1.0	50	0	105	75 - 130	51.28	2.65	20	
o-Xylene	48.16	1.0	50	0	96.3	80 - 120	47.68	1	20	
Toluene	47.98	1.0	50	0	96.0	75 - 121	47.56	0.89	20	
Xylenes, Total	145.8	3.0	150	0	97.2	80 - 124	143	1.96	20	
Surr: 1,2-Dichloroethane-d4	*48.32*	*1.0*	*50*	*0*	*96.6*	*71 - 125*	*48.39*	*0.15*	*20*	
Surr: 4-Bromofluorobenzene	*50.98*	*1.0*	*50*	*0*	*102*	*70 - 125*	*50.52*	*0.906*	*20*	
Surr: Dibromofluoromethane	*45.93*	*1.0*	*50*	*0*	*91.9*	*74 - 125*	*47.14*	*2.6*	*20*	
Surr: Toluene-d8	*51.11*	*1.0*	*50*	*0*	*102*	*75 - 125*	*50.88*	*0.439*	*20*	

The following samples were anayzed in this batch: HS15020508-01

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: **R249845** **Instrument:** **VOA2** **Method:** **SW8260**

MBLK Sample ID: **VBLKW-150218** Units: **ug/L** Analysis Date: **18-Feb-2015 14:19**
Client ID: Run ID: **VOA2_249845** SeqNo: **3190667** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
2-Butanone	ND	2.0								
Benzene	ND	1.0								
Cyclohexane	ND	1.0								
Ethylbenzene	ND	1.0								
Isopropylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylcyclohexane	ND	1.0								
Naphthalene	ND	1.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*49.72*	*1.0*	*50*	*0*	*99.4*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.77*	*1.0*	*50*	*0*	*99.5*	*70 - 125*				
Surr: Dibromofluoromethane	*50.99*	*1.0*	*50*	*0*	*102*	*74 - 125*				
Surr: Toluene-d8	*50.02*	*1.0*	*50*	*0*	*100*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249845 **Instrument: VOA2** **Method: SW8260**

LCS Sample ID: **VLCSW-150218** Units: **ug/L** Analysis Date: **18-Feb-2015 13:29**
Client ID: Run ID: **VOA2_249845** SeqNo: **3190666** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	46.76	1.0	50	0	93.5	70 - 125				
1,2-Dichloroethane	50.77	1.0	50	0	102	76 - 120				
1,3,5-Trimethylbenzene	46.76	1.0	50	0	93.5	80 - 123				
2-Butanone	94.04	2.0	100	0	94.0	60 - 140				
Benzene	48.55	1.0	50	0	97.1	80 - 120				
Cyclohexane	44.77	1.0	50	0	89.5	70 - 130				
Ethylbenzene	47.47	1.0	50	0	94.9	80 - 120				
Isopropylbenzene	48.28	1.0	50	0	96.6	75 - 130				
m,p-Xylene	92.57	2.0	100	0	92.6	80 - 120				
Methylcyclohexane	44.7	1.0	50	0	89.4	70 - 126				
Naphthalene	54.35	1.0	50	0	109	65 - 135				
n-Butylbenzene	45.34	1.0	50	0	90.7	75 - 128				
n-Propylbenzene	46.33	1.0	50	0	92.7	75 - 130				
o-Xylene	47.1	1.0	50	0	94.2	80 - 120				
Toluene	49.2	1.0	50	0	98.4	75 - 121				
Xylenes, Total	139.7	3.0	150	0	93.1	79 - 124				
Surr: 1,2-Dichloroethane-d4	*48.77*	*1.0*	*50*	*0*	*97.5*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.94*	*1.0*	*50*	*0*	*102*	*70 - 125*				
Surr: Dibromofluoromethane	*50.68*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*50.07*	*1.0*	*50*	*0*	*100*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249845 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS15020563-16MS** Units: **ug/L** Analysis Date: **18-Feb-2015 17:39**
Client ID: Run ID: **VOA2_249845** SeqNo: **3191066** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	47.97	1.0	50	0	95.9	70 - 125				
1,2-Dichloroethane	48.27	1.0	50	0	96.5	76 - 120				
1,3,5-Trimethylbenzene	47.97	1.0	50	0	95.9	80 - 123				
2-Butanone	93.9	2.0	100	0	93.9	60 - 140				
Benzene	48.62	1.0	50	0	97.2	80 - 120				
Cyclohexane	50.83	1.0	50	0	102	70 - 130				
Ethylbenzene	48.07	1.0	50	0	96.1	80 - 120				
Isopropylbenzene	49.58	1.0	50	0	99.2	75 - 130				
m,p-Xylene	94.47	2.0	100	0	94.5	80 - 120				
Methylcyclohexane	46.56	1.0	50	0	93.1	70 - 126				
Naphthalene	53.4	1.0	50	0	107	65 - 135				
n-Butylbenzene	44.91	1.0	50	0	89.8	75 - 128				
n-Propylbenzene	46.48	1.0	50	0	93.0	75 - 130				
o-Xylene	47.56	1.0	50	0	95.1	80 - 120				
Toluene	49.83	1.0	50	0	99.7	75 - 121				
Xylenes, Total	142	3.0	150	0	94.7	80 - 124				
Surr: 1,2-Dichloroethane-d4	*50.72*	*1.0*	*50*	*0*	*101*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.37*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*51.28*	*1.0*	*50*	*0*	*103*	*74 - 125*				
Surr: Toluene-d8	*50.33*	*1.0*	*50*	*0*	*101*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249845 **Instrument: VOA2** **Method: SW8260**

MSD Sample ID: **HS15020563-16MSD** Units: **ug/L** Analysis Date: **18-Feb-2015 18:04**
Client ID: Run ID: **VOA2_249845** SeqNo: **3191067** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	47.29	1.0	50	0	94.6	70 - 125	47.97	1.43	20	
1,2-Dichloroethane	47.81	1.0	50	0	95.6	76 - 120	48.27	0.958	20	
1,3,5-Trimethylbenzene	47.29	1.0	50	0	94.6	80 - 123	47.97	1.43	20	
2-Butanone	86.85	2.0	100	0	86.9	60 - 140	93.9	7.8	20	
Benzene	47.36	1.0	50	0	94.7	80 - 120	48.62	2.64	20	
Cyclohexane	47.23	1.0	50	0	94.5	70 - 130	50.83	7.34	20	
Ethylbenzene	46.53	1.0	50	0	93.1	80 - 120	48.07	3.26	20	
Isopropylbenzene	47.19	1.0	50	0	94.4	75 - 130	49.58	4.94	20	
m,p-Xylene	91.12	2.0	100	0	91.1	80 - 120	94.47	3.62	20	
Methylcyclohexane	46.87	1.0	50	0	93.7	70 - 126	46.56	0.682	20	
Naphthalene	53.1	1.0	50	0	106	65 - 135	53.4	0.564	20	
n-Butylbenzene	44.6	1.0	50	0	89.2	75 - 128	44.91	0.688	20	
n-Propylbenzene	45.53	1.0	50	0	91.1	75 - 130	46.48	2.06	20	
o-Xylene	45	1.0	50	0	90.0	80 - 120	47.56	5.53	20	
Toluene	46.66	1.0	50	0	93.3	75 - 121	49.83	6.57	20	
Xylenes, Total	136.1	3.0	150	0	90.7	80 - 124	142	4.26	20	
Surr: 1,2-Dichloroethane-d4	*50.21*	*1.0*	*50*	*0*	*100*	*71 - 125*	*50.72*	*1.01*	*20*	
Surr: 4-Bromofluorobenzene	*50.87*	*1.0*	*50*	*0*	*102*	*70 - 125*	*50.37*	*0.992*	*20*	
Surr: Dibromofluoromethane	*50.53*	*1.0*	*50*	*0*	*101*	*74 - 125*	*51.28*	*1.47*	*20*	
Surr: Toluene-d8	*49.18*	*1.0*	*50*	*0*	*98.4*	*75 - 125*	*50.33*	*2.32*	*20*	

The following samples were anayzed in this batch: HS15020508-02

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: **R249939** **Instrument:** **VOA2** **Method:** **SW8260**

MBLK Sample ID: **VBLKW-150219** Units: **ug/L** Analysis Date: **19-Feb-2015 10:39**
Client ID: Run ID: **VOA2_249939** SeqNo: **3192580** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
2-Butanone	ND	2.0								
Benzene	ND	1.0								
Cyclohexane	ND	1.0								
Ethylbenzene	ND	1.0								
Isopropylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylcyclohexane	ND	1.0								
Naphthalene	ND	1.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*51.15*	*1.0*	*50*	*0*	*102*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49*	*1.0*	*50*	*0*	*98.0*	*70 - 125*				
Surr: Dibromofluoromethane	*49.17*	*1.0*	*50*	*0*	*98.3*	*74 - 125*				
Surr: Toluene-d8	*49.92*	*1.0*	*50*	*0*	*99.8*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: **R249939** **Instrument:** **VOA2** **Method:** **SW8260**

LCS Sample ID: **VLCSW-150219** Units: **ug/L** Analysis Date: **19-Feb-2015 09:49**
Client ID: Run ID: **VOA2_249939** SeqNo: **3192579** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	43.96	1.0	50	0	87.9	70 - 125				
1,2-Dichloroethane	49.45	1.0	50	0	98.9	76 - 120				
1,3,5-Trimethylbenzene	43.96	1.0	50	0	87.9	80 - 123				
2-Butanone	99.15	2.0	100	0	99.2	60 - 140				
Benzene	45.27	1.0	50	0	90.5	80 - 120				
Cyclohexane	46.15	1.0	50	0	92.3	70 - 130				
Ethylbenzene	46.38	1.0	50	0	92.8	80 - 120				
Isopropylbenzene	46.54	1.0	50	0	93.1	75 - 130				
m,p-Xylene	90	2.0	100	0	90.0	80 - 120				
Methylcyclohexane	41.76	1.0	50	0	83.5	70 - 126				
Naphthalene	52.9	1.0	50	0	106	65 - 135				
n-Butylbenzene	42.06	1.0	50	0	84.1	75 - 128				
n-Propylbenzene	44.16	1.0	50	0	88.3	75 - 130				
o-Xylene	45.42	1.0	50	0	90.8	80 - 120				
Toluene	46.15	1.0	50	0	92.3	75 - 121				
Xylenes, Total	135.4	3.0	150	0	90.3	79 - 124				
Surr: 1,2-Dichloroethane-d4	*49.83*	*1.0*	*50*	*0*	*99.7*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.82*	*1.0*	*50*	*0*	*99.6*	*70 - 125*				
Surr: Dibromofluoromethane	*51.75*	*1.0*	*50*	*0*	*103*	*74 - 125*				
Surr: Toluene-d8	*49.63*	*1.0*	*50*	*0*	*99.3*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249939 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS15020654-06MS** Units: **ug/L** Analysis Date: **19-Feb-2015 14:50**
Client ID: Run ID: **VOA2_249939** SeqNo: **3192590** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	47.56	1.0	50	0	95.1	70 - 125				
1,2-Dichloroethane	48.66	1.0	50	0	97.3	76 - 120				
1,3,5-Trimethylbenzene	47.56	1.0	50	0	95.1	80 - 123				
2-Butanone	89.2	2.0	100	0	89.2	60 - 140				
Benzene	47.41	1.0	50	0	94.8	80 - 120				
Cyclohexane	49.28	1.0	50	0	98.6	70 - 130				
Ethylbenzene	48.17	1.0	50	0	96.3	80 - 120				
Isopropylbenzene	48.92	1.0	50	0	97.8	75 - 130				
m,p-Xylene	93	2.0	100	0	93.0	80 - 120				
Methylcyclohexane	48.37	1.0	50	0	96.7	70 - 126				
Naphthalene	52	1.0	50	0	104	65 - 135				
n-Butylbenzene	43.42	1.0	50	0	86.8	75 - 128				
n-Propylbenzene	45.56	1.0	50	0	91.1	75 - 130				
o-Xylene	46.76	1.0	50	0	93.5	80 - 120				
Toluene	48.52	1.0	50	0	97.0	75 - 121				
Xylenes, Total	139.8	3.0	150	0	93.2	80 - 124				
Surr: 1,2-Dichloroethane-d4	*50.44*	*1.0*	*50*	*0*	*101*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.76*	*1.0*	*50*	*0*	*102*	*70 - 125*				
Surr: Dibromofluoromethane	*51.47*	*1.0*	*50*	*0*	*103*	*74 - 125*				
Surr: Toluene-d8	*50.72*	*1.0*	*50*	*0*	*101*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249939 **Instrument: VOA2** **Method: SW8260**

MSD Sample ID: **HS15020654-06MSD** Units: **ug/L** Analysis Date: **20-Feb-2015 09:51**
Client ID: Run ID: **VOA2_249939** SeqNo: **3192641** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	46.9	1.0	50	0	93.8	70 - 125	47.56	1.4	20	
1,2-Dichloroethane	49.08	1.0	50	0	98.2	76 - 120	48.66	0.866	20	
1,3,5-Trimethylbenzene	46.9	1.0	50	0	93.8	80 - 123	47.56	1.4	20	
2-Butanone	97.88	2.0	100	0	97.9	60 - 140	89.2	9.28	20	
Benzene	48.17	1.0	50	0	96.3	80 - 120	47.41	1.58	20	
Cyclohexane	48.26	1.0	50	0	96.5	70 - 130	49.28	2.08	20	
Ethylbenzene	47.99	1.0	50	0	96.0	80 - 120	48.17	0.379	20	
Isopropylbenzene	48.34	1.0	50	0	96.7	75 - 130	48.92	1.19	20	
m,p-Xylene	93.15	2.0	100	0	93.2	80 - 120	93	0.166	20	
Methylcyclohexane	47.33	1.0	50	0	94.7	70 - 126	48.37	2.17	20	
Naphthalene	53.72	1.0	50	0	107	65 - 135	52	3.24	20	
n-Butylbenzene	44.1	1.0	50	0	88.2	75 - 128	43.42	1.56	20	
n-Propylbenzene	45.58	1.0	50	0	91.2	75 - 130	45.56	0.0433	20	
o-Xylene	47.95	1.0	50	0	95.9	80 - 120	46.76	2.53	20	
Toluene	48.42	1.0	50	0	96.8	75 - 121	48.52	0.208	20	
Xylenes, Total	141.1	3.0	150	0	94.1	80 - 124	139.8	0.962	20	
Surr: 1,2-Dichloroethane-d4	*47.8*	*1.0*	*50*	*0*	*95.6*	*71 - 125*	*50.44*	*5.38*	*20*	
Surr: 4-Bromofluorobenzene	*51.56*	*1.0*	*50*	*0*	*103*	*70 - 125*	*50.76*	*1.56*	*20*	
Surr: Dibromofluoromethane	*51.62*	*1.0*	*50*	*0*	*103*	*74 - 125*	*51.47*	*0.288*	*20*	
Surr: Toluene-d8	*50.07*	*1.0*	*50*	*0*	*100*	*75 - 125*	*50.72*	*1.29*	*20*	

The following samples were anayzed in this batch: HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249685 **Instrument: ICS3K2** **Method: E300**

MBLK Sample ID: **WBLKW1-021315** Units: **mg/L** Analysis Date: **13-Feb-2015 11:21**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187471** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	ND	0.100								
Phosphorus, Orthophosphate (As P)	ND	0.100								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW1-021315** Units: **mg/L** Analysis Date: **13-Feb-2015 11:42**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187472** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.865	0.100	4	0	96.6	90 - 110				
Phosphorus, Orthophosphate (As P)	3.754	0.100	4	0	93.8	90 - 110				
Sulfate	19.03	0.500	20	0	95.2	90 - 110				

LCSD Sample ID: **WLCSDW1-021315** Units: **mg/L** Analysis Date: **13-Feb-2015 12:04**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187473** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.874	0.100	4	0	96.8	90 - 110	3.865	0.233	20	
Phosphorus, Orthophosphate (As P)	3.714	0.100	4	0	92.8	90 - 110	3.754	1.07	20	
Sulfate	19.18	0.500	20	0	95.9	90 - 110	19.03	0.764	20	

MS Sample ID: **HS15020509-05MS** Units: **mg/L** Analysis Date: **14-Feb-2015 07:27**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187520** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	2.154	0.100	2	0.132	101	80 - 120				
Phosphorus, Orthophosphate (As P)	1.562	0.100	2	0.296	63.3	80 - 120				S
Sulfate	1015	0.500	10	1035	-199	80 - 120				SEO

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249685 **Instrument: ICS3K2** **Method: E300**

MS Sample ID: **HS15020409-04MS** Units: **mg/L** Analysis Date: **13-Feb-2015 13:09**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187476** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	20.66	1.00	20	1.431	96.1	80 - 120				
Phosphorus, Orthophosphate (As P)	18.05	1.00	20	1.487	82.8	80 - 120				
Sulfate	158.3	5.00	100	56.71	102	80 - 120				

MSD Sample ID: **HS15020509-05MSD** Units: **mg/L** Analysis Date: **14-Feb-2015 07:48**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187521** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	2.173	0.100	2	0.132	102	80 - 120	2.154	0.878	20	
Phosphorus, Orthophosphate (As P)	1.435	0.100	2	0.296	57.0	80 - 120	1.562	8.48	20	S
Sulfate	1023	0.500	10	1035	-119	80 - 120	1015	0.788	20	SEO

MSD Sample ID: **HS15020409-04MSD** Units: **mg/L** Analysis Date: **13-Feb-2015 13:31**
Client ID: Run ID: **ICS3K2_249685** SeqNo: **3187477** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	20.64	1.00	20	1.431	96.1	80 - 120	20.66	0.0726	20	
Phosphorus, Orthophosphate (As P)	18.23	1.00	20	1.487	83.7	80 - 120	18.05	1	20	
Sulfate	158.8	5.00	100	56.71	102	80 - 120	158.3	0.308	20	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249777 **Instrument: WetChem_HS** **Method: SM4500 NH3-D**

MBLK Sample ID: **MBLK-249777** Units: **mg/L** Analysis Date: **17-Feb-2015 12:00**
Client ID: Run ID: **WetChem_HS_249777** SeqNo: **3189586** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (as N)	ND	0.20								

LCS Sample ID: **LCS-249777** Units: **mg/L** Analysis Date: **17-Feb-2015 12:00**
Client ID: Run ID: **WetChem_HS_249777** SeqNo: **3189587** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (as N)	10.3	0.20	10	0	103	80 - 120				

MS Sample ID: **HS15020334-01MS** Units: **mg/L** Analysis Date: **17-Feb-2015 12:00**
Client ID: Run ID: **WetChem_HS_249777** SeqNo: **3189591** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (as N)	9.51	0.20	10	0.218	92.9	80 - 120				

MSD Sample ID: **HS15020334-01MSD** Units: **mg/L** Analysis Date: **17-Feb-2015 12:00**
Client ID: Run ID: **WetChem_HS_249777** SeqNo: **3189592** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (as N)	9.79	0.20	10	0.218	95.7	80 - 120	9.51	2.9	20	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249833 **Instrument: ManTech01** **Method: SM2320B**

MBLK Sample ID: **WBLKW1-150218** Units: **mg/L** Analysis Date: **18-Feb-2015 09:02**
Client ID: Run ID: **ManTech01_249833** SeqNo: **3190475** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.00								
Alkalinity, Carbonate (As CaCO3)	ND	5.00								
Alkalinity, Hydroxide (As CaCO3)	ND	5.00								
Alkalinity, Total (As CaCO3)	ND	5.00								

LCS Sample ID: **LCS-ALK-150218** Units: **mg/L** Analysis Date: **18-Feb-2015 09:08**
Client ID: Run ID: **ManTech01_249833** SeqNo: **3190476** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	980.7	5.00	1000	0	98.1	80 - 120				

LCSD Sample ID: **LCSD-ALK-150218** Units: **mg/L** Analysis Date: **18-Feb-2015 09:14**
Client ID: Run ID: **ManTech01_249833** SeqNo: **3190477** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	981.2	5.00	1000	0	98.1	80 - 120	980.7	0.0591	20	

DUP Sample ID: **HS15020582-01DUP** Units: **mg/L** Analysis Date: **18-Feb-2015 09:27**
Client ID: Run ID: **ManTech01_249833** SeqNo: **3190480** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	155.9	5.00					154.8	0.689	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.00					0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.00					0	0	20	
Alkalinity, Total (As CaCO3)	155.9	5.00					154.8	0.689	20	

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020508

QC BATCH REPORT

Batch ID: R249983 **Instrument: TOC_02** **Method: E415.1**

MBLK Sample ID: **WBLKW1-022015** Units: **mg/L** Analysis Date: **20-Feb-2015 11:24**
Client ID: Run ID: **TOC_02_249983** SeqNo: **3193111** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	ND	1.00								

LCS Sample ID: **WLCSW1-022015** Units: **mg/L** Analysis Date: **20-Feb-2015 11:38**
Client ID: Run ID: **TOC_02_249983** SeqNo: **3193112** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.08	1.00	10	0	101	80 - 120				

LCSD Sample ID: **WLCSDW1-022015** Units: **mg/L** Analysis Date: **20-Feb-2015 11:51**
Client ID: Run ID: **TOC_02_249983** SeqNo: **3193113** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.02	1.00	10	0	100	80 - 120	10.08	0.597	20	

MS Sample ID: **HS15020505-01ZMS** Units: **mg/L** Analysis Date: **20-Feb-2015 13:28**
Client ID: Run ID: **TOC_02_249983** SeqNo: **3193119** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	27.36	1.00	10	18.48	88.8	80 - 120				

The following samples were anayzed in this batch: HS15020508-01 HS15020508-02 HS15020508-03

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: **HS15020508**

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
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 2014-2015	31-Jul-2015
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020508

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	8D
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	8D
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	8D
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	8D
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	VW-3
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	BTEX A1
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	TPH C2
HS15020508-01	MW-14	Login	2/13/2015 4:51:08 PM	PMG	TPH C2
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	VW-3
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	BTEX A1
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	TPH C2
HS15020508-02	MW-1	Login	2/13/2015 5:02:22 PM	PMG	TPH C2
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	8D
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	VW-3
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	BTEX A1
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	TPH C2
HS15020508-03	MW-12	Login	2/13/2015 5:02:22 PM	PMG	TPH C2
HS15020508-04	Trip blank - 012315-80	Login	2/13/2015 5:03:03 PM	PMG	VW-3

Sample Receipt Checklist

Client Name: APEX-PORTLAND
Work Order: HS15020508

Date/Time Received: **13-Feb-2015 16:25**
Received by: **BHH**

Checklist completed by: *Paresh M. Giga* eSignature 13-Feb-2015 Date

Reviewed by: *Ana L. Spencer* eSignature 16-Feb-2015 Date

Matrices: **Water**

Carrier name: **FedEx**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☑	☐	☐
Custody seals intact on sample bottles?	☐	☑	☐
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☐	☑	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	0.6c/0.6c c/U	IR3
Cooler(s)/Kit(s):	5582	
Date/Time sample(s) sent to storage:	2/13/15 17:15	

	Yes	No	No VOA vials submitted
Water - VOA vials have zero headspace?	☑	☐	☐

	Yes	No	N/A
Water - pH acceptable upon receipt?	☑	☐	☐
pH adjusted?	☐	☑	☐

pH adjusted by:

Login Notes: Sampling date does not match for MW-12. Chain - 2/2/15 & Bottles - 2/12/15. Logged in per bottles. Trip Blank not on chain - Logged in with no analysis

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody For

Page 1 of 1

COC ID: 117518

HS15020508

Apex Companies

E3CE-0065 Andover Release Site

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	Andover Release Site
Work Order		Project Number	E3CE-0065
Company Name	Apex Companies	Bill To Company	Apex Companies
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson
Address	3015 SW First Avenue	Address	3015 SW First Avenue
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201
Phone	(503) 924-4704	Phone	(503) 924-4704
Fax		Fax	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com

A	300-Sulfate, ortho-phos, and Nitrate (short hold)
B	RSK175-methane
C	6020-Potassium only
D	Ammonia-4500
E	6020-Dissolved Iron-Lab filtered
F	TOC
G	VOC's (8260) Colt Court GW List
H	GRO - VPH - DA - 1
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-14	2-12	12:35	Water	HCl HNO3 H2SO4	15	X	X	X	X	X	X	X	X			
2	MW-1	2-12	13:30	|	|	|	|	|	|	|	|	|	|	|			
3	MW-12	2-2	14:15	|	|	|	X	X	X	X	X	X	X	X			
4	Nothing follows																
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method:

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 20150212 Time: 16:00

Received by:

Relinquished by: Date: Time:

Received by (Laboratory): 2/13/15 1625

Logged by (Laboratory): Date: Time:

Checked by (Laboratory):

Notes: Andover 3Q GWM-MNA

Cooler ID	Cooler Temp.
5582	0.6°
	#3

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row da
[ ] Level 4 SW846/CLP
[ ] Other/EDD
[ ] TRRP ChkList
[ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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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ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL
Date: 20150212 Time: 16:00
Name: [illegible]
Company: [illegible]

Seal Broken By: BH
Date: 2/13/15

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

CUSTODY SEAL
Date: 20150212 Time: 16:00
Name: [illegible]
Company: [illegible]

Seal Broken By: BH
Date: 2/13/15

5 of 5
MPS# 0681 7802 0569 3144
Mstr# 8033 8132 0687 0215
AB SGRA

FRI – 13 FEB 10:30A
PRIORITY OVERNIGHT
77099
TX-US IAH

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

February 18, 2015

Samuel Jackson
Apex Companies
3015 SW First Avenue
Portland, OR 97201

Work Order: **HS15020514**

Laboratory Results for: **E3CE-0065 Andover Release Site**

Dear Samuel,

ALS Environmental received 16 sample(s) on Feb 13, 2015 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,

Generated By: Dayna.Fisher

Ana L. Spencer

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020514

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15020514-01	MW-2	Water		10-Feb-2015 10:37	13-Feb-2015 09:35	☐
HS15020514-02	MW-13	Water		10-Feb-2015 11:19	13-Feb-2015 09:35	☐
HS15020514-03	MW-8	Water		10-Feb-2015 11:58	13-Feb-2015 09:35	☐
HS15020514-04	MW-5	Water		10-Feb-2015 12:28	13-Feb-2015 09:35	☐
HS15020514-05	MW-4	Water		10-Feb-2015 13:04	13-Feb-2015 09:35	☐
HS15020514-06	MW-11	Water		10-Feb-2015 13:33	13-Feb-2015 09:35	☐
HS15020514-07	MW-15	Water		10-Feb-2015 14:54	13-Feb-2015 09:35	☐
HS15020514-08	MW-16	Water		10-Feb-2015 15:40	13-Feb-2015 09:35	☐
HS15020514-09	MW-3	Water		10-Feb-2015 16:11	13-Feb-2015 09:35	☐
HS15020514-10	MW-9	Water		11-Feb-2015 08:59	13-Feb-2015 09:35	☐
HS15020514-11	MW-10	Water		11-Feb-2015 09:58	13-Feb-2015 09:35	☐
HS15020514-12	MW-6	Water		11-Feb-2015 13:10	13-Feb-2015 09:35	☐
HS15020514-13	MW-7	Water		11-Feb-2015 12:57	13-Feb-2015 09:35	☐
HS15020514-14	DUP 1	Water		10-Feb-2015 00:00	13-Feb-2015 09:35	☐
HS15020514-15	DUP 2	Water		11-Feb-2015 00:00	13-Feb-2015 09:35	☐
HS15020514-16	Trip Blank 012315-77	Water		10-Feb-2015 00:00	13-Feb-2015 09:35	☐

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020514

CASE NARRATIVE

GC Volatiles by Method IA OA-1

Batch ID: R249750

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

GCMS Volatiles by Method SW8260

Batch ID: R249820

Sample ID: **MW-3 (HS15020514-09)**

- Lowest practical dilution for sample hs15020514-09 due to high concentartionof non-target compounds.

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-2	Lab ID:HS15020514-01
Collection Date:	10-Feb-2015 10:37	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 02:44
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 02:44
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 02:44
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 02:44
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 02:44
Surr: 1,2-Dichloroethane-d4	*95.6*		*71-125*	*%REC*	*1*	*18-Feb-2015 02:44*
Surr: 4-Bromofluorobenzene	*91.9*		*70-125*	*%REC*	*1*	*18-Feb-2015 02:44*
Surr: Dibromofluoromethane	*99.9*		*74-125*	*%REC*	*1*	*18-Feb-2015 02:44*
Surr: Toluene-d8	*96.8*		*75-125*	*%REC*	*1*	*18-Feb-2015 02:44*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 11:44
Surr: 4-Bromofluorobenzene	*99.6*		*70-130*	*%REC*	*1*	*16-Feb-2015 11:44*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-13	Lab ID:HS15020514-02
Collection Date:	10-Feb-2015 11:19	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 03:08
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 03:08
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 03:08
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 03:08
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 03:08
Surr: 1,2-Dichloroethane-d4	*95.5*		*71-125*	*%REC*	*1*	*18-Feb-2015 03:08*
Surr: 4-Bromofluorobenzene	*92.2*		*70-125*	*%REC*	*1*	*18-Feb-2015 03:08*
Surr: Dibromofluoromethane	*99.0*		*74-125*	*%REC*	*1*	*18-Feb-2015 03:08*
Surr: Toluene-d8	*99.5*		*75-125*	*%REC*	*1*	*18-Feb-2015 03:08*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 12:00
Surr: 4-Bromofluorobenzene	*99.9*		*70-130*	*%REC*	*1*	*16-Feb-2015 12:00*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-8	Lab ID:HS15020514-03
Collection Date:	10-Feb-2015 11:58	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 03:32
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 03:32
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 03:32
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 03:32
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 03:32
Surr: 1,2-Dichloroethane-d4	*94.6*		*71-125*	*%REC*	*1*	*18-Feb-2015 03:32*
Surr: 4-Bromofluorobenzene	*92.3*		*70-125*	*%REC*	*1*	*18-Feb-2015 03:32*
Surr: Dibromofluoromethane	*97.1*		*74-125*	*%REC*	*1*	*18-Feb-2015 03:32*
Surr: Toluene-d8	*99.4*		*75-125*	*%REC*	*1*	*18-Feb-2015 03:32*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 12:16
Surr: 4-Bromofluorobenzene	*97.0*		*70-130*	*%REC*	*1*	*16-Feb-2015 12:16*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-5	Lab ID:HS15020514-04
Collection Date:	10-Feb-2015 12:28	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	**0.0092**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 07:33
1,3,5-Trimethylbenzene	**0.0024**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 07:33
Benzene	**0.040**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Cyclohexane	**0.016**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Ethylbenzene	**0.0071**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Isopropylbenzene	**0.0020**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
m,p-Xylene	**0.0068**		**0.0020**	**mg/L**	1	18-Feb-2015 07:33
Methylcyclohexane	**0.0030**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Naphthalene	**0.0069**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
n-Butylbenzene	**0.0016**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
n-Propylbenzene	**0.0021**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
o-Xylene	**0.011**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Toluene	**0.0092**		**0.0010**	**mg/L**	1	18-Feb-2015 07:33
Xylenes, Total	**0.018**		**0.0030**	**mg/L**	1	18-Feb-2015 07:33
Surr: 1,2-Dichloroethane-d4	*97.0*		*71-125*	*%REC*	*1*	*18-Feb-2015 07:33*
Surr: 4-Bromofluorobenzene	*95.5*		*70-125*	*%REC*	*1*	*18-Feb-2015 07:33*
Surr: Dibromofluoromethane	*101*		*74-125*	*%REC*	*1*	*18-Feb-2015 07:33*
Surr: Toluene-d8	*99.9*		*75-125*	*%REC*	*1*	*18-Feb-2015 07:33*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**0.27**		**0.050**	**mg/L**	1	16-Feb-2015 12:32
Surr: 4-Bromofluorobenzene	*95.6*		*70-130*	*%REC*	*1*	*16-Feb-2015 12:32*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-4	Lab ID:HS15020514-05
Collection Date:	10-Feb-2015 13:04	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	**0.12**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 07:57
1,3,5-Trimethylbenzene	**0.058**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 07:57
Benzene	**0.17**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Cyclohexane	**0.052**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Ethylbenzene	**0.12**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Isopropylbenzene	**0.0042**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
m,p-Xylene	**0.022**		**0.0020**	**mg/L**	1	18-Feb-2015 07:57
Methylcyclohexane	**0.0092**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Naphthalene	**0.019**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
n-Butylbenzene	**0.0058**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
n-Propylbenzene	**0.0077**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
o-Xylene	**0.081**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Toluene	**0.042**		**0.0010**	**mg/L**	1	18-Feb-2015 07:57
Xylenes, Total	**0.10**		**0.0030**	**mg/L**	1	18-Feb-2015 07:57
Surr: 1,2-Dichloroethane-d4	*92.5*		*71-125*	*%REC*	*1*	*18-Feb-2015 07:57*
Surr: 4-Bromofluorobenzene	*102*		*70-125*	*%REC*	*1*	*18-Feb-2015 07:57*
Surr: Dibromofluoromethane	*101*		*74-125*	*%REC*	*1*	*18-Feb-2015 07:57*
Surr: Toluene-d8	*96.2*		*75-125*	*%REC*	*1*	*18-Feb-2015 07:57*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**1.6**		**0.050**	**mg/L**	1	16-Feb-2015 12:47
Surr: 4-Bromofluorobenzene	*98.0*		*70-130*	*%REC*	*1*	*16-Feb-2015 12:47*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-11	Lab ID:HS15020514-06
Collection Date:	10-Feb-2015 13:33	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 03:56
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 03:56
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:56
Ethylbenzene	**0.0010**		**0.0010**	**mg/L**	1	18-Feb-2015 03:56
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 03:56
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 03:56
Naphthalene	**0.0034**		**0.0010**	**mg/L**	1	18-Feb-2015 03:56
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 03:56
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 03:56
Surr: 1,2-Dichloroethane-d4	*98.2*		*71-125*	*%REC*	*1*	*18-Feb-2015 03:56*
Surr: 4-Bromofluorobenzene	*92.1*		*70-125*	*%REC*	*1*	*18-Feb-2015 03:56*
Surr: Dibromofluoromethane	*99.7*		*74-125*	*%REC*	*1*	*18-Feb-2015 03:56*
Surr: Toluene-d8	*98.6*		*75-125*	*%REC*	*1*	*18-Feb-2015 03:56*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 13:36
Surr: 4-Bromofluorobenzene	*96.0*		*70-130*	*%REC*	*1*	*16-Feb-2015 13:36*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-15	Lab ID:HS15020514-07
Collection Date:	10-Feb-2015 14:54	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 04:20
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 04:20
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 04:20
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 04:20
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 04:20
Surr: 1,2-Dichloroethane-d4	*96.7*		*71-125*	*%REC*	*1*	*18-Feb-2015 04:20*
Surr: 4-Bromofluorobenzene	*92.3*		*70-125*	*%REC*	*1*	*18-Feb-2015 04:20*
Surr: Dibromofluoromethane	*100*		*74-125*	*%REC*	*1*	*18-Feb-2015 04:20*
Surr: Toluene-d8	*99.6*		*75-125*	*%REC*	*1*	*18-Feb-2015 04:20*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 13:52
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 13:52*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-16	Lab ID:HS15020514-08
Collection Date:	10-Feb-2015 15:40	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 04:44
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 04:44
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 04:44
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 04:44
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 04:44
Surr: 1,2-Dichloroethane-d4	*96.3*		*71-125*	*%REC*	*1*	*18-Feb-2015 04:44*
Surr: 4-Bromofluorobenzene	*92.4*		*70-125*	*%REC*	*1*	*18-Feb-2015 04:44*
Surr: Dibromofluoromethane	*99.2*		*74-125*	*%REC*	*1*	*18-Feb-2015 04:44*
Surr: Toluene-d8	*99.7*		*75-125*	*%REC*	*1*	*18-Feb-2015 04:44*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 14:07
Surr: 4-Bromofluorobenzene	*97.4*		*70-130*	*%REC*	*1*	*16-Feb-2015 14:07*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-3	Lab ID:HS15020514-09
Collection Date:	10-Feb-2015 16:11	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	**0.19**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
1,2-Dichloroethane	ND		0.010	mg/L	10	18-Feb-2015 08:21
1,3,5-Trimethylbenzene	**0.047**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
2-Butanone	ND		0.020	mg/L	10	18-Feb-2015 08:21
Benzene	**1.4**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Cyclohexane	**0.15**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Ethylbenzene	**0.52**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Isopropylbenzene	**0.014**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
m,p-Xylene	**0.41**		**0.020**	**mg/L**	10	18-Feb-2015 08:21
Methylcyclohexane	**0.034**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Naphthalene	**0.054**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
n-Butylbenzene	ND		0.010	mg/L	10	18-Feb-2015 08:21
n-Propylbenzene	**0.032**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
o-Xylene	**0.32**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Toluene	**0.93**		**0.010**	**mg/L**	10	18-Feb-2015 08:21
Xylenes, Total	**0.73**		**0.030**	**mg/L**	10	18-Feb-2015 08:21
Surr: 1,2-Dichloroethane-d4	*95.6*		*71-125*	*%REC*	*10*	*18-Feb-2015 08:21*
Surr: 4-Bromofluorobenzene	*97.7*		*70-125*	*%REC*	*10*	*18-Feb-2015 08:21*
Surr: Dibromofluoromethane	*102*		*74-125*	*%REC*	*10*	*18-Feb-2015 08:21*
Surr: Toluene-d8	*96.2*		*75-125*	*%REC*	*10*	*18-Feb-2015 08:21*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**7.9**		**0.050**	**mg/L**	1	16-Feb-2015 14:23
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	*1*	*16-Feb-2015 14:23*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-9	Lab ID:HS15020514-10
Collection Date:	11-Feb-2015 08:59	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 05:08
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 05:08
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 05:08
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 05:08
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 05:08
Surr: 1,2-Dichloroethane-d4	*95.8*		*71-125*	*%REC*	*1*	*18-Feb-2015 05:08*
Surr: 4-Bromofluorobenzene	*91.5*		*70-125*	*%REC*	*1*	*18-Feb-2015 05:08*
Surr: Dibromofluoromethane	*102*		*74-125*	*%REC*	*1*	*18-Feb-2015 05:08*
Surr: Toluene-d8	*97.9*		*75-125*	*%REC*	*1*	*18-Feb-2015 05:08*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 14:39
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 14:39*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-10	Lab ID:HS15020514-11
Collection Date:	11-Feb-2015 09:58	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 05:32
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 05:32
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 05:32
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 05:32
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 05:32
Surr: 1,2-Dichloroethane-d4	*97.2*		*71-125*	*%REC*	*1*	*18-Feb-2015 05:32*
Surr: 4-Bromofluorobenzene	*90.4*		*70-125*	*%REC*	*1*	*18-Feb-2015 05:32*
Surr: Dibromofluoromethane	*98.7*		*74-125*	*%REC*	*1*	*18-Feb-2015 05:32*
Surr: Toluene-d8	*98.1*		*75-125*	*%REC*	*1*	*18-Feb-2015 05:32*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 14:54
Surr: 4-Bromofluorobenzene	*96.7*		*70-130*	*%REC*	*1*	*16-Feb-2015 14:54*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-6	Lab ID:HS15020514-12
Collection Date:	11-Feb-2015 13:10	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 05:56
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 05:56
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 05:56
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 05:56
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 05:56
Surr: 1,2-Dichloroethane-d4	*95.5*		*71-125*	*%REC*	*1*	*18-Feb-2015 05:56*
Surr: 4-Bromofluorobenzene	*91.4*		*70-125*	*%REC*	*1*	*18-Feb-2015 05:56*
Surr: Dibromofluoromethane	*99.0*		*74-125*	*%REC*	*1*	*18-Feb-2015 05:56*
Surr: Toluene-d8	*99.3*		*75-125*	*%REC*	*1*	*18-Feb-2015 05:56*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 15:10
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 15:10*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	MW-7	Lab ID:HS15020514-13
Collection Date:	11-Feb-2015 12:57	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 06:21
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 06:21
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 06:21
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 06:21
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 06:21
Surr: 1,2-Dichloroethane-d4	*95.9*		*71-125*	*%REC*	*1*	*18-Feb-2015 06:21*
Surr: 4-Bromofluorobenzene	*90.1*		*70-125*	*%REC*	*1*	*18-Feb-2015 06:21*
Surr: Dibromofluoromethane	*98.4*		*74-125*	*%REC*	*1*	*18-Feb-2015 06:21*
Surr: Toluene-d8	*98.4*		*75-125*	*%REC*	*1*	*18-Feb-2015 06:21*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 15:26
Surr: 4-Bromofluorobenzene	*99.4*		*70-130*	*%REC*	*1*	*16-Feb-2015 15:26*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	DUP 1	Lab ID:HS15020514-14
Collection Date:	10-Feb-2015 00:00	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 06:45
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 06:45
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 06:45
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 06:45
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 06:45
Surr: 1,2-Dichloroethane-d4	*96.7*		*71-125*	*%REC*	*1*	*18-Feb-2015 06:45*
Surr: 4-Bromofluorobenzene	*91.6*		*70-125*	*%REC*	*1*	*18-Feb-2015 06:45*
Surr: Dibromofluoromethane	*99.6*		*74-125*	*%REC*	*1*	*18-Feb-2015 06:45*
Surr: Toluene-d8	*98.4*		*75-125*	*%REC*	*1*	*18-Feb-2015 06:45*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 15:41
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 15:41*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020514
Sample ID:	DUP 2	Lab ID:HS15020514-15
Collection Date:	11-Feb-2015 00:00	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: PC
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
1,2-Dichloroethane	ND		0.0010	mg/L	1	18-Feb-2015 07:09
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
2-Butanone	ND		0.0020	mg/L	1	18-Feb-2015 07:09
Benzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Cyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Ethylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Isopropylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
m,p-Xylene	ND		0.0020	mg/L	1	18-Feb-2015 07:09
Methylcyclohexane	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Naphthalene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
n-Butylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
n-Propylbenzene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
o-Xylene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Toluene	ND		0.0010	mg/L	1	18-Feb-2015 07:09
Xylenes, Total	ND		0.0030	mg/L	1	18-Feb-2015 07:09
Surr: 1,2-Dichloroethane-d4	*97.6*		*71-125*	*%REC*	*1*	*18-Feb-2015 07:09*
Surr: 4-Bromofluorobenzene	*90.8*		*70-125*	*%REC*	*1*	*18-Feb-2015 07:09*
Surr: Dibromofluoromethane	*98.4*		*74-125*	*%REC*	*1*	*18-Feb-2015 07:09*
Surr: Toluene-d8	*98.6*		*75-125*	*%REC*	*1*	*18-Feb-2015 07:09*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 15:57
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 15:57*

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R249750	**Test Name :** VPH - IOWA OA-1			**Matrix:** Water		
HS15020514-01	MW-2	10 Feb 2015 10:37			16 Feb 2015 11:44	1
HS15020514-02	MW-13	10 Feb 2015 11:19			16 Feb 2015 12:00	1
HS15020514-03	MW-8	10 Feb 2015 11:58			16 Feb 2015 12:16	1
HS15020514-04	MW-5	10 Feb 2015 12:28			16 Feb 2015 12:32	1
HS15020514-05	MW-4	10 Feb 2015 13:04			16 Feb 2015 12:47	1
HS15020514-06	MW-11	10 Feb 2015 13:33			16 Feb 2015 13:36	1
HS15020514-07	MW-15	10 Feb 2015 14:54			16 Feb 2015 13:52	1
HS15020514-08	MW-16	10 Feb 2015 15:40			16 Feb 2015 14:07	1
HS15020514-09	MW-3	10 Feb 2015 16:11			16 Feb 2015 14:23	1
HS15020514-10	MW-9	11 Feb 2015 08:59			16 Feb 2015 14:39	1
HS15020514-11	MW-10	11 Feb 2015 09:58			16 Feb 2015 14:54	1
HS15020514-12	MW-6	11 Feb 2015 13:10			16 Feb 2015 15:10	1
HS15020514-13	MW-7	11 Feb 2015 12:57			16 Feb 2015 15:26	1
HS15020514-14	DUP 1	10 Feb 2015 00:00			16 Feb 2015 15:41	1
HS15020514-15	DUP 2	11 Feb 2015 00:00			16 Feb 2015 15:57	1
Batch ID R249820	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS15020514-01	MW-2	10 Feb 2015 10:37			18 Feb 2015 02:44	1
HS15020514-02	MW-13	10 Feb 2015 11:19			18 Feb 2015 03:08	1
HS15020514-03	MW-8	10 Feb 2015 11:58			18 Feb 2015 03:32	1
HS15020514-04	MW-5	10 Feb 2015 12:28			18 Feb 2015 07:33	1
HS15020514-05	MW-4	10 Feb 2015 13:04			18 Feb 2015 07:57	1
HS15020514-06	MW-11	10 Feb 2015 13:33			18 Feb 2015 03:56	1
HS15020514-07	MW-15	10 Feb 2015 14:54			18 Feb 2015 04:20	1
HS15020514-08	MW-16	10 Feb 2015 15:40			18 Feb 2015 04:44	1
HS15020514-09	MW-3	10 Feb 2015 16:11			18 Feb 2015 08:21	10
HS15020514-10	MW-9	11 Feb 2015 08:59			18 Feb 2015 05:08	1
HS15020514-11	MW-10	11 Feb 2015 09:58			18 Feb 2015 05:32	1
HS15020514-12	MW-6	11 Feb 2015 13:10			18 Feb 2015 05:56	1
HS15020514-13	MW-7	11 Feb 2015 12:57			18 Feb 2015 06:21	1
HS15020514-14	DUP 1	10 Feb 2015 00:00			18 Feb 2015 06:45	1
HS15020514-15	DUP 2	11 Feb 2015 00:00			18 Feb 2015 07:09	1

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

QC BATCH REPORT

Batch ID: R249750 **Instrument: FID-14** **Method: IA OA-1**

MBLK Sample ID: **GBLKW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:42**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189153** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.09639*	*0.0050*	*0.1*	*0*	*96.4*	*70 - 130*				

LCS Sample ID: **GLCSW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:10**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189152** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.009	0.050	1	0	101	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1102*	*0.0050*	*0.1*	*0*	*110*	*70 - 130*				

MS Sample ID: **HS15020514-15MS** Units: **mg/L** Analysis Date: **16-Feb-2015 16:13**
Client ID: **DUP 2** Run ID: **FID-14_249750** SeqNo: **3189173** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	0.9317	0.050	1	0	93.2	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1044*	*0.0050*	*0.1*	*0*	*104*	*70 - 130*				

MSD Sample ID: **HS15020514-15MSD** Units: **mg/L** Analysis Date: **16-Feb-2015 16:28**
Client ID: **DUP 2** Run ID: **FID-14_249750** SeqNo: **3189174** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.199	0.050	1	0	120	70 - 130	0.9317	25.1	30	
Surr: 4-Bromofluorobenzene	*0.1051*	*0.0050*	*0.1*	*0*	*105*	*70 - 130*	*0.1044*	*0.644*	*30*	

The following samples were anayzed in this batch:

HS15020514-01	HS15020514-02	HS15020514-03	HS15020514-04
HS15020514-05	HS15020514-06	HS15020514-07	HS15020514-08
HS15020514-09	HS15020514-10	HS15020514-11	HS15020514-12
HS15020514-13	HS15020514-14	HS15020514-15	

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

QC BATCH REPORT

Batch ID: **R249820** **Instrument:** **VOA6** **Method:** **SW8260**

MBLK Sample ID: **VBLKW-150217** Units: **ug/L** Analysis Date: **17-Feb-2015 23:07**
Client ID: Run ID: **VOA6_249820** SeqNo: **3190248** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
2-Butanone	ND	2.0								
Benzene	ND	1.0								
Cyclohexane	ND	1.0								
Ethylbenzene	ND	1.0								
Isopropylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylcyclohexane	ND	1.0								
Naphthalene	ND	1.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*48.53*	*1.0*	*50*	*0*	*97.1*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*45.92*	*1.0*	*50*	*0*	*91.8*	*70 - 125*				
Surr: Dibromofluoromethane	*50.18*	*1.0*	*50*	*0*	*100*	*74 - 125*				
Surr: Toluene-d8	*49.69*	*1.0*	*50*	*0*	*99.4*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

QC BATCH REPORT

Batch ID: R249820 **Instrument: VOA6** **Method: SW8260**

LCS Sample ID: **VLCSW-150217** Units: **ug/L** Analysis Date: **17-Feb-2015 21:55**
Client ID: Run ID: **VOA6_249820** SeqNo: **3190247** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	43.67	1.0	50	0	87.3	70 - 125				
1,2-Dichloroethane	43.34	1.0	50	0	86.7	76 - 120				
1,3,5-Trimethylbenzene	43.12	1.0	50	0	86.2	80 - 123				
2-Butanone	90.68	2.0	100	0	90.7	60 - 140				
Benzene	47.51	1.0	50	0	95.0	80 - 120				
Cyclohexane	47.43	1.0	50	0	94.9	70 - 130				
Ethylbenzene	46.71	1.0	50	0	93.4	80 - 120				
Isopropylbenzene	46.12	1.0	50	0	92.2	75 - 130				
m,p-Xylene	90.87	2.0	100	0	90.9	80 - 120				
Methylcyclohexane	38.08	1.0	50	0	76.2	70 - 126				
Naphthalene	45.71	1.0	50	0	91.4	65 - 135				
n-Butylbenzene	44.91	1.0	50	0	89.8	75 - 128				
n-Propylbenzene	43.41	1.0	50	0	86.8	75 - 130				
o-Xylene	46.73	1.0	50	0	93.5	80 - 120				
Toluene	45.51	1.0	50	0	91.0	75 - 121				
Xylenes, Total	137.6	3.0	150	0	91.7	79 - 124				
Surr: 1,2-Dichloroethane-d4	*47.13*	*1.0*	*50*	*0*	*94.3*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*51.65*	*1.0*	*50*	*0*	*103*	*70 - 125*				
Surr: Dibromofluoromethane	*50.84*	*1.0*	*50*	*0*	*102*	*74 - 125*				
Surr: Toluene-d8	*48.08*	*1.0*	*50*	*0*	*96.2*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

QC BATCH REPORT

Batch ID: R249820 **Instrument: VOA6** **Method: SW8260**

MS Sample ID: **HS15020560-06MS** Units: **ug/L** Analysis Date: **18-Feb-2015 00:20**
Client ID: Run ID: **VOA6_249820** SeqNo: **3190251** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	42.73	1.0	50	0	85.5	70 - 125				
1,2-Dichloroethane	48.98	1.0	50	0	98.0	76 - 120				
1,3,5-Trimethylbenzene	41.96	1.0	50	0	83.9	80 - 123				
2-Butanone	96.42	2.0	100	0	96.4	60 - 140				
Benzene	48.89	1.0	50	0	97.8	80 - 120				
Cyclohexane	49.96	1.0	50	0	99.9	70 - 130				
Ethylbenzene	47.7	1.0	50	0	95.4	80 - 120				
Isopropylbenzene	47.2	1.0	50	0	94.4	75 - 130				
m,p-Xylene	93.37	2.0	100	0	93.4	80 - 120				
Methylcyclohexane	44.7	1.0	50	0	89.4	70 - 126				
Naphthalene	43.78	1.0	50	0	87.6	65 - 135				
n-Butylbenzene	42.3	1.0	50	0	84.6	75 - 128				
n-Propylbenzene	42.29	1.0	50	0	84.6	75 - 130				
o-Xylene	46.98	1.0	50	0	94.0	80 - 120				
Toluene	45.76	1.0	50	0	91.5	75 - 121				
Xylenes, Total	140.3	3.0	150	0	93.6	80 - 124				
Surr: 1,2-Dichloroethane-d4	*47.9*	*1.0*	*50*	*0*	*95.8*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*51.59*	*1.0*	*50*	*0*	*103*	*70 - 125*				
Surr: Dibromofluoromethane	*50.4*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*48.38*	*1.0*	*50*	*0*	*96.8*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020514

QC BATCH REPORT

Batch ID: R249820 **Instrument: VOA6** **Method: SW8260**

MSD Sample ID: **HS15020560-06MSD** Units: **ug/L** Analysis Date: **18-Feb-2015 00:44**
Client ID: Run ID: **VOA6_249820** SeqNo: **3190252** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	44.43	1.0	50	0	88.9	70 - 125	42.73	3.9	20	
1,2-Dichloroethane	47.48	1.0	50	0	95.0	76 - 120	48.98	3.11	20	
1,3,5-Trimethylbenzene	43.16	1.0	50	0	86.3	80 - 123	41.96	2.82	20	
2-Butanone	101.2	2.0	100	0	101	60 - 140	96.42	4.86	20	
Benzene	48.86	1.0	50	0	97.7	80 - 120	48.89	0.0584	20	
Cyclohexane	50.31	1.0	50	0	101	70 - 130	49.96	0.698	20	
Ethylbenzene	48.28	1.0	50	0	96.6	80 - 120	47.7	1.21	20	
Isopropylbenzene	48.49	1.0	50	0	97.0	75 - 130	47.2	2.7	20	
m,p-Xylene	95.19	2.0	100	0	95.2	80 - 120	93.37	1.93	20	
Methylcyclohexane	44.81	1.0	50	0	89.6	70 - 126	44.7	0.25	20	
Naphthalene	49.81	1.0	50	0	99.6	65 - 135	43.78	12.9	20	
n-Butylbenzene	45.36	1.0	50	0	90.7	75 - 128	42.3	6.99	20	
n-Propylbenzene	43.62	1.0	50	0	87.2	75 - 130	42.29	3.1	20	
o-Xylene	47.46	1.0	50	0	94.9	80 - 120	46.98	1.02	20	
Toluene	46.17	1.0	50	0	92.3	75 - 121	45.76	0.893	20	
Xylenes, Total	142.6	3.0	150	0	95.1	80 - 124	140.3	1.63	20	
Surr: 1,2-Dichloroethane-d4	*47.29*	*1.0*	*50*	*0*	*94.6*	*71 - 125*	*47.9*	*1.27*	*20*	
Surr: 4-Bromofluorobenzene	*51.92*	*1.0*	*50*	*0*	*104*	*70 - 125*	*51.59*	*0.638*	*20*	
Surr: Dibromofluoromethane	*49.44*	*1.0*	*50*	*0*	*98.9*	*74 - 125*	*50.4*	*1.93*	*20*	
Surr: Toluene-d8	*48.26*	*1.0*	*50*	*0*	*96.5*	*75 - 125*	*48.38*	*0.233*	*20*	

The following samples were anayzed in this batch:

HS15020514-01	HS15020514-02	HS15020514-03	HS15020514-04
HS15020514-05	HS15020514-06	HS15020514-07	HS15020514-08
HS15020514-09	HS15020514-10	HS15020514-11	HS15020514-12
HS15020514-13	HS15020514-14	HS15020514-15	

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: **HS15020514**

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
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 2014-2015	31-Jul-2015
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020514

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15020514-01	MW-2	Login	2/13/2015 5:45:16 PM	NDR	VW-3
HS15020514-01	MW-2	Login	2/13/2015 5:45:16 PM	NDR	BTEX A1
HS15020514-02	MW-13	Login	2/13/2015 5:59:16 PM	NDR	VW-3
HS15020514-02	MW-13	Login	2/13/2015 5:59:16 PM	NDR	BTEX A1
HS15020514-03	MW-8	Login	2/13/2015 5:59:16 PM	NDR	VW-3
HS15020514-03	MW-8	Login	2/13/2015 5:59:16 PM	NDR	BTEX A1
HS15020514-04	MW-5	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-04	MW-5	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-05	MW-4	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-05	MW-4	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-06	MW-11	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-06	MW-11	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-07	MW-15	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-07	MW-15	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-08	MW-16	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-08	MW-16	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-09	MW-3	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-09	MW-3	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-10	MW-9	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-10	MW-9	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-11	MW-10	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-11	MW-10	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-12	MW-6	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-12	MW-6	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-13	MW-7	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-13	MW-7	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-14	DUP 1	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-14	DUP 1	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-15	DUP 2	Login	2/13/2015 5:59:17 PM	NDR	VW-3
HS15020514-15	DUP 2	Login	2/13/2015 5:59:17 PM	NDR	BTEX A1
HS15020514-16	Trip Blank 012315-77	Login	2/13/2015 6:00:12 PM	NDR	VW-3

Sample Receipt Checklist

Client Name:	Apex-Portland	Date/Time Received:	**13-Feb-2015 09:35**
Work Order:	HS15020514	Received by:	**KNR**

Checklist completed by: *Nilesh D. Ranchod* (eSignature) 13-Feb-2015 (Date)

Reviewed by: *Ana L. Spencer* (eSignature) 16-Feb-2015 (Date)

Matrices: **Water** Carrier name: **FedEx**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☑	☐	☐
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	2.3c / 2.3c c/u	1
Cooler(s)/Kit(s):	5410	
Date/Time sample(s) sent to storage:	02/13/2015 6:30PM	

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑
pH adjusted by:				

Login Notes: Trip Blank recieved logged in without analysis

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:

ALS Environmental

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 1 of 2

COC ID: 117511

HS15020514

Apex Companies
E3CE-0065 Andover Release Site

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-2	2-10-15	10:37	Water	HCL	6	X	X									
2	MW-13	2-10-15	11:19	Water	HCL	6	X	X									
3	MW-8	2-10-15	11:58	Water	HCL	6	X	X									
4	MW-5	2-10-15	12:28	Water	HCL	6	X	X									
5	MW-4	2-10-15	13:04	Water	HCL	6	X	X									
6	MW-11	2-10-15	13:33	Water	HCL	6	X	X									
7	MW-15	2-10-15	14:54	Water	HCL	6	X	X									
8	MW-16	2-10-15	15:40	Water	HCL	6	X	X									
9	MW-3	2-10-15	16:11	Water	HCL	6	X	X									
10	MW-9	2-11-15	08:59	Water	HCL	6	X	X									

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 20150217 Time: 16:00 Received by:

Relinquished by: Date: 2/13/15 Time: 9:35 Received by (Laboratory): Krystal Renomatko

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: Colt Court 3Q2014 GW Mon Wells

Cooler ID	Cooler Temp.
540	2.3
	#1

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row da
[ ] Level 4 SW846/CLP
[ ] Other/EDD
[ ] TRRP ChkList
[ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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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ALS Environmental

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Holland, MI +1 616 399 6070

Chain of Custody Form

Page 2 of 2

COC ID: 117513

HS15020514

Apex Companies
E3CE-0065 Andover Release Site

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-10	2-11-15	09:58	water	HCL	6	X	X									
2	MW-6	2-11-15	13:10	water	HCL	6	X	X									
3	MW-7	2-11-15	12:57	water	HCL	6	X	X									
4	DUP 1	—	—	water	HCL	6	X	X									
5	DUP 2	—	—	water	HCL	6	X	X									
6	NOTHING FOLLOWS																
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FED EX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 20150212 Time: 16:00

Received by:

Relinquished by: Date: 2/13/15 Time: 9:35

Received by (Laboratory): Krupta Mathis

Logged by (Laboratory): Date: Time:

Checked by (Laboratory):

Notes: Colt Court 3Q 2014 GW Mon Wells

Cooler ID	Cooler Temp.
5410	2.3
	#1

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row da
[ ] Level 4 SW846/CLP
[ ] Other/EDD
[ ] TRRP ChkList
[ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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 [illegible]

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3 of 5

MPS# [0681] 7802 0569 3122

Mstr# 8033 8132 0687

[0215]

FRI – 13 FEB 10:30A
PRIORITY OVERNIGHT

AB SGRA 5410

77099
TX-US IAH

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

5410

CUSTODY SEAL

Date: 2015 02 12 Time: 10:00
Name: [illegible]
Company: ALS

Seal Broken By: KC
Date: 2/13/15

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

5410

CUSTODY SEAL

Date: 2015 02 12 Time: 1606
Name: [illegible]
Company: ALS

Seal Broken By: KC
Date: 2/13/15

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

February 18, 2015

Samuel Jackson
Apex Companies
3015 SW First Avenue
Portland, OR 97201

Work Order: **HS15020551**

Laboratory Results for: **E3CE-0065 Andover Release Site**

Dear Samuel,

ALS Environmental received 19 sample(s) on Feb 14, 2015 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,

Generated By: Dayna.Fisher

Ana L. Spencer

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020551

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15020551-01	1009 W Mountain	Water		11-Feb-2015 13:45	14-Feb-2015 11:55	☐
HS15020551-02	2009 N Mountain Court	Water		11-Feb-2015 14:00	14-Feb-2015 11:55	☐
HS15020551-03	2007 N Mountain Court	Water		11-Feb-2015 14:10	14-Feb-2015 11:55	☐
HS15020551-04	2020 N Ruger Circle	Water		11-Feb-2015 14:30	14-Feb-2015 11:55	☐
HS15020551-05	2019 N Ruger Circle	Water		11-Feb-2015 14:40	14-Feb-2015 11:55	☐
HS15020551-06	2028 N Ruger Circle	Water		11-Feb-2015 14:58	14-Feb-2015 11:55	☐
HS15020551-07	2032 N Ruger Circle	Water		11-Feb-2015 15:02	14-Feb-2015 11:55	☐
HS15020551-08	2025 N Ruger Court	Water		11-Feb-2015 15:14	14-Feb-2015 11:55	☐
HS15020551-09	2021 N Ruger Court	Water		11-Feb-2015 15:32	14-Feb-2015 11:55	☐
HS15020551-10	1211 W Quail Crossing Court	Water		12-Feb-2015 09:46	14-Feb-2015 11:55	☐
HS15020551-11	HOA-1	Water		12-Feb-2015 10:05	14-Feb-2015 11:55	☐
HS15020551-12	HOA-2	Water		12-Feb-2015 10:27	14-Feb-2015 11:55	☐
HS15020551-13	1910 N Quail Crossing	Water		12-Feb-2015 10:40	14-Feb-2015 11:55	☐
HS15020551-14	2002 N Colt Court	Water		12-Feb-2015 11:25	14-Feb-2015 11:55	☐
HS15020551-15	2005 N Colt Court	Water		12-Feb-2015 11:37	14-Feb-2015 11:55	☐
HS15020551-16	2007 N Colt Court	Water		12-Feb-2015 11:50	14-Feb-2015 11:55	☐
HS15020551-17	DUP 1	Water		11-Feb-2015 00:00	14-Feb-2015 11:55	☐
HS15020551-18	DUP 2	Water		12-Feb-2015 00:00	14-Feb-2015 11:55	☐
HS15020551-19	Trip Blank - 012315-69	Water		11-Feb-2015 00:00	14-Feb-2015 11:55	☑

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020551

CASE NARRATIVE

GC Volatiles by Method IA OA-1

Batch ID: R249750,R249751

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

GCMS Volatiles by Method SW8260

Batch ID: R249749

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	1009 W Mountain	Lab ID:HS15020551-01
Collection Date:	11-Feb-2015 13:45	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 00:26
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 00:26
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 00:26
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 00:26
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 00:26
Surr: 1,2-Dichloroethane-d4	*94.3*		*71-125*	*%REC*	*1*	*17-Feb-2015 00:26*
Surr: 4-Bromofluorobenzene	*97.2*		*70-125*	*%REC*	*1*	*17-Feb-2015 00:26*
Surr: Dibromofluoromethane	*88.9*		*74-125*	*%REC*	*1*	*17-Feb-2015 00:26*
Surr: Toluene-d8	*105*		*75-125*	*%REC*	*1*	*17-Feb-2015 00:26*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 17:16
Surr: 4-Bromofluorobenzene	*92.6*		*70-130*	*%REC*	*1*	*16-Feb-2015 17:16*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2009 N Mountain Court	Lab ID:HS15020551-02
Collection Date:	11-Feb-2015 14:00	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 02:06
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 02:06
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 02:06
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 02:06
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 02:06
Surr: 1,2-Dichloroethane-d4	*98.7*		*71-125*	*%REC*	*1*	*17-Feb-2015 02:06*
Surr: 4-Bromofluorobenzene	*99.5*		*70-125*	*%REC*	*1*	*17-Feb-2015 02:06*
Surr: Dibromofluoromethane	*90.6*		*74-125*	*%REC*	*1*	*17-Feb-2015 02:06*
Surr: Toluene-d8	*105*		*75-125*	*%REC*	*1*	*17-Feb-2015 02:06*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 17:31
Surr: 4-Bromofluorobenzene	*98.8*		*70-130*	*%REC*	*1*	*16-Feb-2015 17:31*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2007 N Mountain Court	Lab ID:HS15020551-03
Collection Date:	11-Feb-2015 14:10	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 02:31
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
2-Butanone	**0.014**		**0.0020**	**mg/L**	1	17-Feb-2015 02:31
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 02:31
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 02:31
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 02:31
Surr: 1,2-Dichloroethane-d4	*97.5*		*71-125*	*%REC*	*1*	*17-Feb-2015 02:31*
Surr: 4-Bromofluorobenzene	*97.0*		*70-125*	*%REC*	*1*	*17-Feb-2015 02:31*
Surr: Dibromofluoromethane	*89.8*		*74-125*	*%REC*	*1*	*17-Feb-2015 02:31*
Surr: Toluene-d8	*106*		*75-125*	*%REC*	*1*	*17-Feb-2015 02:31*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 19:21
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*1*	*16-Feb-2015 19:21*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2020 N Ruger Circle	Lab ID:HS15020551-04
Collection Date:	11-Feb-2015 14:30	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 02:55
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 02:55
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 02:55
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 02:55
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 02:55
Surr: 1,2-Dichloroethane-d4	*98.2*		*71-125*	*%REC*	*1*	*17-Feb-2015 02:55*
Surr: 4-Bromofluorobenzene	*98.8*		*70-125*	*%REC*	*1*	*17-Feb-2015 02:55*
Surr: Dibromofluoromethane	*92.9*		*74-125*	*%REC*	*1*	*17-Feb-2015 02:55*
Surr: Toluene-d8	*105*		*75-125*	*%REC*	*1*	*17-Feb-2015 02:55*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 19:37
Surr: 4-Bromofluorobenzene	*99.8*		*70-130*	*%REC*	*1*	*16-Feb-2015 19:37*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2019 N Ruger Circle	Lab ID:HS15020551-05
Collection Date:	11-Feb-2015 14:40	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 03:20
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 03:20
Benzene	**0.053**		**0.0010**	**mg/L**	1	17-Feb-2015 03:20
Cyclohexane	**0.0054**		**0.0010**	**mg/L**	1	17-Feb-2015 03:20
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 03:20
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 03:20
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 03:20
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 03:20
Surr: 1,2-Dichloroethane-d4	*100.0*		*71-125*	*%REC*	*1*	*17-Feb-2015 03:20*
Surr: 4-Bromofluorobenzene	*98.8*		*70-125*	*%REC*	*1*	*17-Feb-2015 03:20*
Surr: Dibromofluoromethane	*90.4*		*74-125*	*%REC*	*1*	*17-Feb-2015 03:20*
Surr: Toluene-d8	*105*		*75-125*	*%REC*	*1*	*17-Feb-2015 03:20*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**0.12**		**0.050**	**mg/L**	1	16-Feb-2015 19:52
Surr: 4-Bromofluorobenzene	*95.4*		*70-130*	*%REC*	*1*	*16-Feb-2015 19:52*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2028 N Ruger Circle	Lab ID:HS15020551-06
Collection Date:	11-Feb-2015 14:58	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 03:46
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 03:46
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 03:46
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 03:46
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 03:46
Surr: 1,2-Dichloroethane-d4	*97.3*		*71-125*	*%REC*	*1*	*17-Feb-2015 03:46*
Surr: 4-Bromofluorobenzene	*95.5*		*70-125*	*%REC*	*1*	*17-Feb-2015 03:46*
Surr: Dibromofluoromethane	*89.5*		*74-125*	*%REC*	*1*	*17-Feb-2015 03:46*
Surr: Toluene-d8	*104*		*75-125*	*%REC*	*1*	*17-Feb-2015 03:46*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 20:08
Surr: 4-Bromofluorobenzene	*98.5*		*70-130*	*%REC*	*1*	*16-Feb-2015 20:08*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2032 N Ruger Circle	Lab ID:HS15020551-07
Collection Date:	11-Feb-2015 15:02	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 04:11
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 04:11
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 04:11
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 04:11
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 04:11
Surr: 1,2-Dichloroethane-d4	*102*		*71-125*	*%REC*	*1*	*17-Feb-2015 04:11*
Surr: 4-Bromofluorobenzene	*104*		*70-125*	*%REC*	*1*	*17-Feb-2015 04:11*
Surr: Dibromofluoromethane	*94.0*		*74-125*	*%REC*	*1*	*17-Feb-2015 04:11*
Surr: Toluene-d8	*111*		*75-125*	*%REC*	*1*	*17-Feb-2015 04:11*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 20:24
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*1*	*16-Feb-2015 20:24*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2025 N Ruger Court	Lab ID:HS15020551-08
Collection Date:	11-Feb-2015 15:14	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 04:36
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 04:36
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 04:36
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 04:36
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 04:36
Surr: 1,2-Dichloroethane-d4	*97.6*		*71-125*	*%REC*	*1*	*17-Feb-2015 04:36*
Surr: 4-Bromofluorobenzene	*99.4*		*70-125*	*%REC*	*1*	*17-Feb-2015 04:36*
Surr: Dibromofluoromethane	*92.5*		*74-125*	*%REC*	*1*	*17-Feb-2015 04:36*
Surr: Toluene-d8	*108*		*75-125*	*%REC*	*1*	*17-Feb-2015 04:36*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 20:39
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Feb-2015 20:39*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2021 N Ruger Court	Lab ID:HS15020551-09
Collection Date:	11-Feb-2015 15:32	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 05:00
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 05:00
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 05:00
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 05:00
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 05:00
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*17-Feb-2015 05:00*
Surr: 4-Bromofluorobenzene	*97.5*		*70-125*	*%REC*	*1*	*17-Feb-2015 05:00*
Surr: Dibromofluoromethane	*90.4*		*74-125*	*%REC*	*1*	*17-Feb-2015 05:00*
Surr: Toluene-d8	*107*		*75-125*	*%REC*	*1*	*17-Feb-2015 05:00*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 20:55
Surr: 4-Bromofluorobenzene	*99.3*		*70-130*	*%REC*	*1*	*16-Feb-2015 20:55*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	1211 W Quail Crossing Court	Lab ID:HS15020551-10
Collection Date:	12-Feb-2015 09:46	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 05:25
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 05:25
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 05:25
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 05:25
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 05:25
Surr: 1,2-Dichloroethane-d4	*107*		*71-125*	*%REC*	*1*	*17-Feb-2015 05:25*
Surr: 4-Bromofluorobenzene	*103*		*70-125*	*%REC*	*1*	*17-Feb-2015 05:25*
Surr: Dibromofluoromethane	*97.3*		*74-125*	*%REC*	*1*	*17-Feb-2015 05:25*
Surr: Toluene-d8	*112*		*75-125*	*%REC*	*1*	*17-Feb-2015 05:25*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 21:42
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*1*	*16-Feb-2015 21:42*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	HOA-1	Lab ID:HS15020551-11
Collection Date:	12-Feb-2015 10:05	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 05:50
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 05:50
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 05:50
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 05:50
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 05:50
Surr: 1,2-Dichloroethane-d4	*102*		*71-125*	*%REC*	*1*	*17-Feb-2015 05:50*
Surr: 4-Bromofluorobenzene	*98.7*		*70-125*	*%REC*	*1*	*17-Feb-2015 05:50*
Surr: Dibromofluoromethane	*90.0*		*74-125*	*%REC*	*1*	*17-Feb-2015 05:50*
Surr: Toluene-d8	*106*		*75-125*	*%REC*	*1*	*17-Feb-2015 05:50*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 21:58
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*1*	*16-Feb-2015 21:58*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	HOA-2	Lab ID:HS15020551-12
Collection Date:	12-Feb-2015 10:27	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 06:15
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 06:15
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 06:15
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 06:15
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 06:15
Surr: 1,2-Dichloroethane-d4	*106*		*71-125*	*%REC*	*1*	*17-Feb-2015 06:15*
Surr: 4-Bromofluorobenzene	*100.0*		*70-125*	*%REC*	*1*	*17-Feb-2015 06:15*
Surr: Dibromofluoromethane	*92.3*		*74-125*	*%REC*	*1*	*17-Feb-2015 06:15*
Surr: Toluene-d8	*107*		*75-125*	*%REC*	*1*	*17-Feb-2015 06:15*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 22:14
Surr: 4-Bromofluorobenzene	*96.9*		*70-130*	*%REC*	*1*	*16-Feb-2015 22:14*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	1910 N Quail Crossing	Lab ID:HS15020551-13
Collection Date:	12-Feb-2015 10:40	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 06:40
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 06:40
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 06:40
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 06:40
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 06:40
Surr: 1,2-Dichloroethane-d4	*97.2*		*71-125*	*%REC*	*1*	*17-Feb-2015 06:40*
Surr: 4-Bromofluorobenzene	*95.4*		*70-125*	*%REC*	*1*	*17-Feb-2015 06:40*
Surr: Dibromofluoromethane	*89.4*		*74-125*	*%REC*	*1*	*17-Feb-2015 06:40*
Surr: Toluene-d8	*103*		*75-125*	*%REC*	*1*	*17-Feb-2015 06:40*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 22:29
Surr: 4-Bromofluorobenzene	*97.9*		*70-130*	*%REC*	*1*	*16-Feb-2015 22:29*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2002 N Colt Court	Lab ID:HS15020551-14
Collection Date:	12-Feb-2015 11:25	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 07:05
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 07:05
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 07:05
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 07:05
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 07:05
Surr: 1,2-Dichloroethane-d4	*96.0*		*71-125*	*%REC*	*1*	*17-Feb-2015 07:05*
Surr: 4-Bromofluorobenzene	*97.3*		*70-125*	*%REC*	*1*	*17-Feb-2015 07:05*
Surr: Dibromofluoromethane	*91.3*		*74-125*	*%REC*	*1*	*17-Feb-2015 07:05*
Surr: Toluene-d8	*104*		*75-125*	*%REC*	*1*	*17-Feb-2015 07:05*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 22:45
Surr: 4-Bromofluorobenzene	*99.7*		*70-130*	*%REC*	*1*	*16-Feb-2015 22:45*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2005 N Colt Court	Lab ID:HS15020551-15
Collection Date:	12-Feb-2015 11:37	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	**0.039**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 07:30
1,3,5-Trimethylbenzene	**0.0091**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 07:30
Benzene	**0.059**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Cyclohexane	**0.022**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Ethylbenzene	**0.041**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Isopropylbenzene	**0.0013**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
m,p-Xylene	**0.053**		**0.0020**	**mg/L**	1	17-Feb-2015 07:30
Methylcyclohexane	**0.0039**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Naphthalene	**0.0045**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:30
n-Propylbenzene	**0.0044**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
o-Xylene	**0.034**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Toluene	**0.11**		**0.0010**	**mg/L**	1	17-Feb-2015 07:30
Xylenes, Total	**0.088**		**0.0030**	**mg/L**	1	17-Feb-2015 07:30
Surr: 1,2-Dichloroethane-d4	*106*		*71-125*	*%REC*	*1*	*17-Feb-2015 07:30*
Surr: 4-Bromofluorobenzene	*109*		*70-125*	*%REC*	*1*	*17-Feb-2015 07:30*
Surr: Dibromofluoromethane	*94.5*		*74-125*	*%REC*	*1*	*17-Feb-2015 07:30*
Surr: Toluene-d8	*115*		*75-125*	*%REC*	*1*	*17-Feb-2015 07:30*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**1.4**		**0.050**	**mg/L**	1	16-Feb-2015 23:01
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*1*	*16-Feb-2015 23:01*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	2007 N Colt Court	Lab ID:HS15020551-16
Collection Date:	12-Feb-2015 11:50	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	**0.025**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 07:56
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:56
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 07:56
Benzene	**0.052**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Cyclohexane	**0.019**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Ethylbenzene	**0.027**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:56
m,p-Xylene	**0.023**		**0.0020**	**mg/L**	1	17-Feb-2015 07:56
Methylcyclohexane	**0.0018**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Naphthalene	**0.0039**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 07:56
n-Propylbenzene	**0.0025**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
o-Xylene	**0.0025**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Toluene	**0.022**		**0.0010**	**mg/L**	1	17-Feb-2015 07:56
Xylenes, Total	**0.025**		**0.0030**	**mg/L**	1	17-Feb-2015 07:56
Surr: 1,2-Dichloroethane-d4	*102*		*71-125*	*%REC*	*1*	*17-Feb-2015 07:56*
Surr: 4-Bromofluorobenzene	*103*		*70-125*	*%REC*	*1*	*17-Feb-2015 07:56*
Surr: Dibromofluoromethane	*94.7*		*74-125*	*%REC*	*1*	*17-Feb-2015 07:56*
Surr: Toluene-d8	*106*		*75-125*	*%REC*	*1*	*17-Feb-2015 07:56*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	**0.40**		**0.050**	**mg/L**	1	16-Feb-2015 23:16
Surr: 4-Bromofluorobenzene	*99.6*		*70-130*	*%REC*	*1*	*16-Feb-2015 23:16*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	DUP 1	Lab ID:HS15020551-17
Collection Date:	11-Feb-2015 00:00	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 08:21
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 08:21
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 08:21
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 08:21
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 08:21
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*17-Feb-2015 08:21*
Surr: 4-Bromofluorobenzene	*98.3*		*70-125*	*%REC*	*1*	*17-Feb-2015 08:21*
Surr: Dibromofluoromethane	*91.3*		*74-125*	*%REC*	*1*	*17-Feb-2015 08:21*
Surr: Toluene-d8	*105*		*75-125*	*%REC*	*1*	*17-Feb-2015 08:21*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 23:32
Surr: 4-Bromofluorobenzene	*99.2*		*70-130*	*%REC*	*1*	*16-Feb-2015 23:32*

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

Client:	Apex Companies	**ANALYTICAL REPORT**
Project:	E3CE-0065 Andover Release Site	WorkOrder:HS15020551
Sample ID:	DUP 2	Lab ID:HS15020551-18
Collection Date:	12-Feb-2015 00:00	Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
1,2,4-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
1,2-Dichloroethane	ND		0.0010	mg/L	1	17-Feb-2015 08:47
1,3,5-Trimethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
2-Butanone	ND		0.0020	mg/L	1	17-Feb-2015 08:47
Benzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Cyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Ethylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Isopropylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
m,p-Xylene	ND		0.0020	mg/L	1	17-Feb-2015 08:47
Methylcyclohexane	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Naphthalene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
n-Butylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
n-Propylbenzene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
o-Xylene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Toluene	ND		0.0010	mg/L	1	17-Feb-2015 08:47
Xylenes, Total	ND		0.0030	mg/L	1	17-Feb-2015 08:47
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*17-Feb-2015 08:47*
Surr: 4-Bromofluorobenzene	*95.4*		*70-125*	*%REC*	*1*	*17-Feb-2015 08:47*
Surr: Dibromofluoromethane	*90.5*		*74-125*	*%REC*	*1*	*17-Feb-2015 08:47*
Surr: Toluene-d8	*103*		*75-125*	*%REC*	*1*	*17-Feb-2015 08:47*
VPH - IOWA OA-1		**Method:IA OA-1**				Analyst: PPM
VPH - Gasoline Range Organics	ND		0.050	mg/L	1	16-Feb-2015 23:48
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	*1*	*16-Feb-2015 23:48*

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R249749	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS15020551-01	1009 W Mountain	11 Feb 2015 13:45			17 Feb 2015 00:26	1
HS15020551-02	2009 N Mountain Court	11 Feb 2015 14:00			17 Feb 2015 02:06	1
HS15020551-03	2007 N Mountain Court	11 Feb 2015 14:10			17 Feb 2015 02:31	1
HS15020551-04	2020 N Ruger Circle	11 Feb 2015 14:30			17 Feb 2015 02:55	1
HS15020551-05	2019 N Ruger Circle	11 Feb 2015 14:40			17 Feb 2015 03:20	1
HS15020551-06	2028 N Ruger Circle	11 Feb 2015 14:58			17 Feb 2015 03:46	1
HS15020551-07	2032 N Ruger Circle	11 Feb 2015 15:02			17 Feb 2015 04:11	1
HS15020551-08	2025 N Ruger Court	11 Feb 2015 15:14			17 Feb 2015 04:36	1
HS15020551-09	2021 N Ruger Court	11 Feb 2015 15:32			17 Feb 2015 05:00	1
HS15020551-10	1211 W Quail Crossing Court	12 Feb 2015 09:46			17 Feb 2015 05:25	1
HS15020551-11	HOA-1	12 Feb 2015 10:05			17 Feb 2015 05:50	1
HS15020551-12	HOA-2	12 Feb 2015 10:27			17 Feb 2015 06:15	1
HS15020551-13	1910 N Quail Crossing	12 Feb 2015 10:40			17 Feb 2015 06:40	1
HS15020551-14	2002 N Colt Court	12 Feb 2015 11:25			17 Feb 2015 07:05	1
HS15020551-15	2005 N Colt Court	12 Feb 2015 11:37			17 Feb 2015 07:30	1
HS15020551-16	2007 N Colt Court	12 Feb 2015 11:50			17 Feb 2015 07:56	1
HS15020551-17	DUP 1	11 Feb 2015 00:00			17 Feb 2015 08:21	1
HS15020551-18	DUP 2	12 Feb 2015 00:00			17 Feb 2015 08:47	1
Batch ID R249750	**Test Name :** VPH - IOWA OA-1			**Matrix:** Water		
HS15020551-01	1009 W Mountain	11 Feb 2015 13:45			16 Feb 2015 17:16	1
HS15020551-02	2009 N Mountain Court	11 Feb 2015 14:00			16 Feb 2015 17:31	1
Batch ID R249751	**Test Name :** VPH - IOWA OA-1			**Matrix:** Water		
HS15020551-03	2007 N Mountain Court	11 Feb 2015 14:10			16 Feb 2015 19:21	1
HS15020551-04	2020 N Ruger Circle	11 Feb 2015 14:30			16 Feb 2015 19:37	1
HS15020551-05	2019 N Ruger Circle	11 Feb 2015 14:40			16 Feb 2015 19:52	1
HS15020551-06	2028 N Ruger Circle	11 Feb 2015 14:58			16 Feb 2015 20:08	1
HS15020551-07	2032 N Ruger Circle	11 Feb 2015 15:02			16 Feb 2015 20:24	1
HS15020551-08	2025 N Ruger Court	11 Feb 2015 15:14			16 Feb 2015 20:39	1
HS15020551-09	2021 N Ruger Court	11 Feb 2015 15:32			16 Feb 2015 20:55	1
HS15020551-10	1211 W Quail Crossing Court	12 Feb 2015 09:46			16 Feb 2015 21:42	1
HS15020551-11	HOA-1	12 Feb 2015 10:05			16 Feb 2015 21:58	1
HS15020551-12	HOA-2	12 Feb 2015 10:27			16 Feb 2015 22:14	1
HS15020551-13	1910 N Quail Crossing	12 Feb 2015 10:40			16 Feb 2015 22:29	1
HS15020551-14	2002 N Colt Court	12 Feb 2015 11:25			16 Feb 2015 22:45	1
HS15020551-15	2005 N Colt Court	12 Feb 2015 11:37			16 Feb 2015 23:01	1
HS15020551-16	2007 N Colt Court	12 Feb 2015 11:50			16 Feb 2015 23:16	1
HS15020551-17	DUP 1	11 Feb 2015 00:00			16 Feb 2015 23:32	1
HS15020551-18	DUP 2	12 Feb 2015 00:00			16 Feb 2015 23:48	1

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: R249750 **Instrument: FID-14** **Method: IA OA-1**

MBLK Sample ID: **GBLKW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:42**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189153** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.09639*	*0.0050*	*0.1*	*0*	*96.4*	*70 - 130*				

LCS Sample ID: **GLCSW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 10:10**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189152** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.009	0.050	1	0	101	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1102*	*0.0050*	*0.1*	*0*	*110*	*70 - 130*				

MS Sample ID: **HS15020514-15MS** Units: **mg/L** Analysis Date: **16-Feb-2015 16:13**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189173** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	0.9317	0.050	1	0	93.2	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1044*	*0.0050*	*0.1*	*0*	*104*	*70 - 130*				

MSD Sample ID: **HS15020514-15MSD** Units: **mg/L** Analysis Date: **16-Feb-2015 16:28**
Client ID: Run ID: **FID-14_249750** SeqNo: **3189174** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.199	0.050	1	0	120	70 - 130	0.9317	25.1	30	
Surr: 4-Bromofluorobenzene	*0.1051*	*0.0050*	*0.1*	*0*	*105*	*70 - 130*	*0.1044*	*0.644*	*30*	

The following samples were anayzed in this batch: HS15020551-01 HS15020551-02

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: R249751 **Instrument: FID-14** **Method: IA OA-1**

MBLK Sample ID: **GBLKW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 18:50**
Client ID: Run ID: **FID-14_249751** SeqNo: **3189183** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.1018*	*0.0050*	*0.1*	*0*	*102*	*70 - 130*				

LCS Sample ID: **GLCSW1-150216** Units: **mg/L** Analysis Date: **16-Feb-2015 18:18**
Client ID: Run ID: **FID-14_249751** SeqNo: **3189182** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	0.9736	0.050	1	0	97.4	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1065*	*0.0050*	*0.1*	*0*	*107*	*70 - 130*				

MS Sample ID: **HS15020551-18MS** Units: **mg/L** Analysis Date: **17-Feb-2015 00:03**
Client ID: **DUP 2** Run ID: **FID-14_249751** SeqNo: **3189202** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.091	0.050	1	0	109	70 - 130				
Surr: 4-Bromofluorobenzene	*0.106*	*0.0050*	*0.1*	*0*	*106*	*70 - 130*				

MSD Sample ID: **HS15020551-18MSD** Units: **mg/L** Analysis Date: **17-Feb-2015 00:19**
Client ID: **DUP 2** Run ID: **FID-14_249751** SeqNo: **3189203** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
VPH - Gasoline Range Organics	1.106	0.050	1	0	111	70 - 130	1.091	1.38	30	
Surr: 4-Bromofluorobenzene	*0.1101*	*0.0050*	*0.1*	*0*	*110*	*70 - 130*	*0.106*	*3.77*	*30*	

The following samples were anayzed in this batch:

HS15020551-03	HS15020551-04	HS15020551-05	HS15020551-06
HS15020551-07	HS15020551-08	HS15020551-09	HS15020551-10
HS15020551-11	HS15020551-12	HS15020551-13	HS15020551-14
HS15020551-15	HS15020551-16	HS15020551-17	HS15020551-18

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: **R249749** **Instrument:** **VOA4** **Method:** **SW8260**

MBLK Sample ID: **VBLKW-150216** Units: **ug/L** Analysis Date: **16-Feb-2015 23:35**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189032** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
2-Butanone	ND	2.0								
Benzene	ND	1.0								
Cyclohexane	ND	1.0								
Ethylbenzene	ND	1.0								
Isopropylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylcyclohexane	ND	1.0								
Naphthalene	ND	1.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*50.42*	*1.0*	*50*	*0*	*101*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.26*	*1.0*	*50*	*0*	*96.5*	*70 - 125*				
Surr: Dibromofluoromethane	*44.46*	*1.0*	*50*	*0*	*88.9*	*74 - 125*				
Surr: Toluene-d8	*51.72*	*1.0*	*50*	*0*	*103*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: R249749 **Instrument: VOA4** **Method: SW8260**

LCS Sample ID: **VLCSW-150216** Units: **ug/L** Analysis Date: **16-Feb-2015 22:46**
Client ID: Run ID: **VOA4_249749** SeqNo: **3189031** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	53.33	1.0	50	0	107	70 - 125				
1,2-Dichloroethane	51.87	1.0	50	0	104	76 - 120				
1,3,5-Trimethylbenzene	53.45	1.0	50	0	107	80 - 123				
2-Butanone	105.7	2.0	100	0	106	60 - 140				
Benzene	43.12	1.0	50	0	86.2	80 - 120				
Cyclohexane	44.73	1.0	50	0	89.5	70 - 130				
Ethylbenzene	48.92	1.0	50	0	97.8	80 - 120				
Isopropylbenzene	50.88	1.0	50	0	102	75 - 130				
m,p-Xylene	96.57	2.0	100	0	96.6	80 - 120				
Methylcyclohexane	42.1	1.0	50	0	84.2	70 - 126				
Naphthalene	57.6	1.0	50	0	115	65 - 135				
n-Butylbenzene	56.39	1.0	50	0	113	75 - 128				
n-Propylbenzene	51.71	1.0	50	0	103	75 - 130				
o-Xylene	48.33	1.0	50	0	96.7	80 - 120				
Toluene	48.35	1.0	50	0	96.7	75 - 121				
Xylenes, Total	144.9	3.0	150	0	96.6	79 - 124				
Surr: 1,2-Dichloroethane-d4	*49.44*	*1.0*	*50*	*0*	*98.9*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*51.92*	*1.0*	*50*	*0*	*104*	*70 - 125*				
Surr: Dibromofluoromethane	*47.5*	*1.0*	*50*	*0*	*95.0*	*74 - 125*				
Surr: Toluene-d8	*52.29*	*1.0*	*50*	*0*	*105*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: **R249749** **Instrument:** **VOA4** **Method:** **SW8260**

MS Sample ID: **HS15020551-01MS** Units: **ug/L** Analysis Date: **17-Feb-2015 00:51**
Client ID: **1009 W Mountain** Run ID: **VOA4_249749** SeqNo: **3189035** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	50.84	1.0	50	0	102	70 - 125				
1,2-Dichloroethane	49.15	1.0	50	0	98.3	76 - 120				
1,3,5-Trimethylbenzene	51.59	1.0	50	0	103	80 - 123				
2-Butanone	86.79	2.0	100	0	86.8	60 - 140				
Benzene	43.18	1.0	50	0	86.4	80 - 120				
Cyclohexane	44.44	1.0	50	0	88.9	70 - 130				
Ethylbenzene	48.86	1.0	50	0	97.7	80 - 120				
Isopropylbenzene	50.94	1.0	50	0	102	75 - 130				
m,p-Xylene	95.28	2.0	100	0	95.3	80 - 120				
Methylcyclohexane	44.51	1.0	50	0	89.0	70 - 126				
Naphthalene	46	1.0	50	0	92.0	65 - 135				
n-Butylbenzene	55.74	1.0	50	0	111	75 - 128				
n-Propylbenzene	51.28	1.0	50	0	103	75 - 130				
o-Xylene	47.68	1.0	50	0	95.4	80 - 120				
Toluene	47.56	1.0	50	0	95.1	75 - 121				
Xylenes, Total	143	3.0	150	0	95.3	80 - 124				
Surr: 1,2-Dichloroethane-d4	*48.39*	*1.0*	*50*	*0*	*96.8*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.52*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*47.14*	*1.0*	*50*	*0*	*94.3*	*74 - 125*				
Surr: Toluene-d8	*50.88*	*1.0*	*50*	*0*	*102*	*75 - 125*				

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: HS15020551

QC BATCH REPORT

Batch ID: **R249749** **Instrument:** **VOA4** **Method:** **SW8260**

MSD Sample ID: **HS15020551-01MSD** Units: **ug/L** Analysis Date: **17-Feb-2015 01:15**
Client ID: **1009 W Mountain** Run ID: **VOA4_249749** SeqNo: **3189036** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	52.83	1.0	50	0	106	70 - 125	50.84	3.84	20	
1,2-Dichloroethane	49.28	1.0	50	0	98.6	76 - 120	49.15	0.265	20	
1,3,5-Trimethylbenzene	53.25	1.0	50	0	106	80 - 123	51.59	3.16	20	
2-Butanone	93.59	2.0	100	0	93.6	60 - 140	86.79	7.53	20	
Benzene	43.56	1.0	50	0	87.1	80 - 120	43.18	0.877	20	
Cyclohexane	45.43	1.0	50	0	90.9	70 - 130	44.44	2.2	20	
Ethylbenzene	49.29	1.0	50	0	98.6	80 - 120	48.86	0.885	20	
Isopropylbenzene	51.4	1.0	50	0	103	75 - 130	50.94	0.903	20	
m,p-Xylene	97.63	2.0	100	0	97.6	80 - 120	95.28	2.44	20	
Methylcyclohexane	44.98	1.0	50	0	90.0	70 - 126	44.51	1.06	20	
Naphthalene	54.49	1.0	50	0	109	65 - 135	46	16.9	20	
n-Butylbenzene	56.88	1.0	50	0	114	75 - 128	55.74	2.02	20	
n-Propylbenzene	52.66	1.0	50	0	105	75 - 130	51.28	2.65	20	
o-Xylene	48.16	1.0	50	0	96.3	80 - 120	47.68	1	20	
Toluene	47.98	1.0	50	0	96.0	75 - 121	47.56	0.89	20	
Xylenes, Total	145.8	3.0	150	0	97.2	80 - 124	143	1.96	20	
Surr: 1,2-Dichloroethane-d4	*48.32*	*1.0*	*50*	*0*	*96.6*	*71 - 125*	*48.39*	*0.15*	*20*	
Surr: 4-Bromofluorobenzene	*50.98*	*1.0*	*50*	*0*	*102*	*70 - 125*	*50.52*	*0.906*	*20*	
Surr: Dibromofluoromethane	*45.93*	*1.0*	*50*	*0*	*91.9*	*74 - 125*	*47.14*	*2.6*	*20*	
Surr: Toluene-d8	*51.11*	*1.0*	*50*	*0*	*102*	*75 - 125*	*50.88*	*0.439*	*20*	

The following samples were anayzed in this batch:

HS15020551-01	HS15020551-02	HS15020551-03	HS15020551-04
HS15020551-05	HS15020551-06	HS15020551-07	HS15020551-08
HS15020551-09	HS15020551-10	HS15020551-11	HS15020551-12
HS15020551-13	HS15020551-14	HS15020551-15	HS15020551-16
HS15020551-17	HS15020551-18		

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

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
WorkOrder: **HS15020551**

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 Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
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 2014-2015	31-Jul-2015
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-14-14	30-Apr-2015

Client: Apex Companies
Project: E3CE-0065 Andover Release Site
Work Order: HS15020551

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15020551-01	1009 W Mountain	Login	2/16/2015 10:39:57 AM	PMG	VW-3
HS15020551-01	1009 W Mountain	Login	2/16/2015 10:39:57 AM	PMG	BTEX A1
HS15020551-02	2009 N Mountain Court	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-02	2009 N Mountain Court	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-03	2007 N Mountain Court	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-03	2007 N Mountain Court	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-04	2020 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-04	2020 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-05	2019 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-05	2019 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-06	2028 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-06	2028 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-07	2032 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-07	2032 N Ruger Circle	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-08	2025 N Ruger Court	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-08	2025 N Ruger Court	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-09	2021 N Ruger Court	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-09	2021 N Ruger Court	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-10	1211 W Quail Crossing Court	Login	2/16/2015 10:49:02 AM	PMG	VW-3
HS15020551-10	1211 W Quail Crossing Court	Login	2/16/2015 10:49:02 AM	PMG	BTEX A1
HS15020551-11	HOA-1	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-11	HOA-1	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-12	HOA-2	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-12	HOA-2	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-13	1910 N Quail Crossing	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-13	1910 N Quail Crossing	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-14	2002 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-14	2002 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-15	2005 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-15	2005 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-16	2007 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-16	2007 N Colt Court	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-17	DUP 1	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-17	DUP 1	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-18	DUP 2	Login	2/16/2015 10:51:44 AM	PMG	VW-3
HS15020551-18	DUP 2	Login	2/16/2015 10:51:44 AM	PMG	BTEX A1
HS15020551-19	Trip Blank - 012315-69	Login	2/16/2015 10:52:27 AM	PMG	VW-3

Sample Receipt Checklist

Client Name: APEX-PORTLAND
Work Order: HS15020551

Date/Time Received: **14-Feb-2015 11:55**
Received by: **BHH**

Checklist completed by: *Paresh M. Giga* (eSignature) 16-Feb-2015 (Date)

Reviewed by: *Ana L. Spencer* (eSignature) 16-Feb-2015 (Date)

Matrices: **Water**

Carrier name: **FedEx**

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☑	☐	☐
Custody seals intact on sample bottles?	☐	☑	☐
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s):	2.3c/2.3c c/U	IR3
Cooler(s)/Kit(s):	23505	
Date/Time sample(s) sent to storage:	2/16/15 11:30	

	Yes	No	No VOA vials submitted / N/A
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	☑	☐	N/A ☐
pH adjusted?	☐	☑	N/A ☐

pH adjusted by:

Login Notes: Trip Blank not on chain - Logged in with no analysis

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:

ALS Environmental

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

Chain of Custody Form

Page 1 of 2

COC ID: 117516

HS15020551

, WV

Apex Companies

E3CE-0065 Andover Release Site

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Andover Release Site	A	VOCs (6260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	1009 W. Mountain	2-11-15	13:45	water	HCl	6	X	X									
2	2009 N. Mountain	2-11-15	14:00														
3	2007 N Mountain	2-11-15	14:10														
4	2020 N Ruger CR	2-11-15	14:30														
5	2019 N Ruger CR	2-11-15	14:40														
6	2028 N Ruger CR	2-11-15	14:55														
7	2032 N Ruger CR	2-11-15	15:02														
8	2025 N Ruger Ct	2-11-15	15:14														
9	2021 N Ruger Ct	2-11-15	1532														
10	1211 W. Quail	2-12-15	09:46				X	X									

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 20150212 Time: 16:00 Received by:

Relinquished by: Date: Time: Received by (Laboratory): 2/14/15 1155

Notes: Colt Court 3Q2014 GW Mon Wells

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Cooler ID	Cooler Temp.
23505	2,3
INK	3

QC Package: (Check One Box Below)

[X] Level 2 Std QC [ ] TRRP ChkList
[ ] Level 3 Std QC/Row de [ ] TRRP Level 4
[ ] Level 4 SW846/CLP
[ ] Other/EDD

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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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Chain of Custody For

Page 2 of 2

COC ID: 117515

HS15020551

on, WV
58
80

Apex Companies
E3CE-0065 Andover Release Site

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Andover Release Site	A	VOCs (8260) Colt Court GW List
Work Order		Project Number	E3CE-0065	B	GRO - VPH OA-1
Company Name	Apex Companies	Bill To Company	Apex Companies	C	
Send Report To	Samuel Jackson	Invoice Attn	Samuel Jackson	D	
Address	3015 SW First Avenue	Address	3015 SW First Avenue	E	
				F	
City/State/Zip	Portland, OR 97201	City/State/Zip	Portland, OR 97201	G	
Phone	(503) 924-4704	Phone	(503) 924-4704	H	
Fax		Fax		I	
e-Mail Address	sjackson@apexcos.com	e-Mail Address	sjackson@apexcos.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	HOA 1	2-12-15	10:05	water	HCL	6	X	X									
2	HOA 2	2-12-15	10:27														
3	1910 N. Quail	2-12-15	10:40														
4	2002 N Colt Ct.	2-12-15	11:25														
5	2005 N Colt Ct.	2-12-15	11:37														
6	2007 N. Colt Ct.	2-12-15	11:50														
7	DUP 1	—	—														
8	DUP 2	—	—	water	HCL	6	X	X									
9	→	NOTHING	FOLLOWS														
10																	

Sampler(s) Please Print & Sign: Paul Ward

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Date: 20150212 Time: 16:00 Received by:

Relinquished by: Date: Time: Received by (Laboratory):

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: Colt Court 3Q2014 GW Mon Wells

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row de
[ ] Level 4 SW846/CLP
[ ] Other/EDD
[ ] TRRP ChkList
[ ] TRRP Level 4

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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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ALS Environmental
13450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL
Date: 2/13/2012 Time: 16:00
Name: [illegible]
Company: APEX
Seal Broken By: B.H.
Date: 2/16/15

ALS Environmental
10450 S[illegible] Suite 210
Houston, [illegible]099
Tel. +1 281 [illegible]56
Fax. +1 281 530 [illegible]887

CUSTODY SEAL
Date: 2/13/2012 Time: 16:00
Name: [illegible]
Company: APEX
Seal Broken By: BH
Date: 2/16/15

4 of 5
MPS# 0681 7802 0569 3133
Mstr# 8033 8132 0687
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PRIORITY OVERNIGHT
77099
TX-US IAH