BROWN ENVIRONMENTAL, INC.
P.O. BOX 886 PLACITAS, NEW MEXICO 87043

EXTENDED OFF-SITE INVESTIGATION AND GROUNDWATER SAMPLING REPORT 5-16

PRINCE AND COMMERCE SITE
CLOVIS, NEW MEXICO

Submitted To:

Ms. Renee Romero
NMED-PSTB
1914 West 2nd Street
Roswell, New Mexico 88201

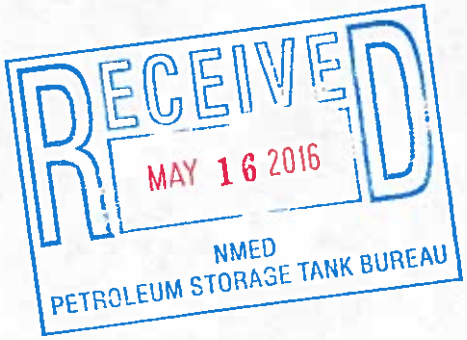
Mr. Jeff Scarbrough
Allsups Petroleum, Inc
2112 Thornton Ave.
Clovis, New Mexico 88102

May 2016

Extended Off-Site Investigation Report

Allsups #320 Vicinity
Prince and Commerce Street Site
Clovis, New Mexico

BEI Job No. 1070
WPID#s 17514 and 17445
DID#s17514-3, 17445-3, and 17445-5
Facility #31013
RID #4623



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1.0 EXECUTIVE SUMMARY

On behalf of Allsups Petroleum, Inc. (Allsups), Brown Environmental, Inc. (BEI) recently conducted an Extended Off-Site Investigation (EOSI) south of the Allsups #320 facility located in Clovis, New Mexico (Figure 1). In November and December 2015, three nested monitor wells (BW-8, BW-9, and BW-10) were installed at the locations highlighted in Figure 2. The EOSI was conducted as a follow-up to an earlier Minimum Site Assessment (MSA) and Off-Site Investigation conducted between 2011 and 2014. The earlier MSA/OSI drilling included installation and sampling of three nested groundwater monitor wells (BW-1, BW-2, and BW-3) and four single completion wells (BW-4, BW-5, BW-6, and BW-7) in the Site vicinity.

In late March 2016, BEI performed a comprehensive groundwater sampling event on all deep monitor wells in the Site vicinity including the three newly installed wells. The results of the recent drilling and groundwater-sampling event are highlighted in this EOSI report. Additionally, in January 2016, BEI conducted a soil vapor survey on all Site vicinity wells, the results of which are included herein.

Retrieved soil samples from boreholes advanced in the Site vicinity by BEI indicate four primary Lithologic Units, which are highlighted in the cross sections shown on Figures 3a and 3b. Lithologic Unit I consists predominantly of clayey sand, silt and very fine sand extending from the land surface to approximately 20 to 30 feet below surface grade (bsg). Minor to moderate stage 1 to 2 discontinuous calcium carbonate (caliche) cemented zones are present towards the bottom of this Unit. Lithologic Unit II consists primarily of silty sand with prominent stage 3 to 4 caliche extending to approximately 67 to 75 feet bsg. Lithologic Unit III extends below Unit II to a depth of between approximately 280 to 348 feet bsg and consists predominantly of very fine sand with low to trace amounts of silt. Lithologic Unit IV extends below Lithologic Unit III to the base of each borehole and consists predominantly of silty sands, sandy silts, and localized thin carbonate-cemented fine sandstone layers and nodules.

Depth to groundwater in deep wells was approximately 323 to 327 feet bsg during the March 2016 sampling and gauging event. A potentiometric surface map using the data collected from this event is presented in Figure 4. Groundwater flow beneath the Site was calculated to be approximately 0.0026 to 0.042 feet/foot to the south and southeast. Regional groundwater levels have reportedly dropped significantly during the past several decades as a result of over pumping of supply wells.

Based on the combined drilling and soil vapor sampling in the Site vicinity, an extensive vapor-phase gasoline plume is present in soils with localized areas of adsorbed-phase soil hydrocarbons extending to the water table. This soil contaminant plume is centered in the vicinity of Commerce and Prince Streets in Clovis. An historical records search and aerial photographic analysis identified the presence of a former Shamrock Service Station located at the south side of this intersection which operated between approximately the late 1950's and 1981.

Results of the March 2016 groundwater-sampling event indicate an extensive dissolved-phase groundwater hydrocarbon contaminant plume is also centered in the vicinity of the former Shamrock Station as shown in Figures 6 through 9. The highest levels of benzene, toluene, ethyl benzene, and total xylenes (BTEX), 1,2 dichloroethane (EDC), 1,2 dibromoethane (EDB), and total naphthalenes (NAPH) were identified in groundwater samples collected from off-site wells BW-5, BW-7 and BW-8. Benzene, at a concentration of 40 parts per billion (ppb) in well BW-1, was the only tested volatile organic compound (VOC) exceeding New Mexico Water Quality Control Commission (WQCC) Standards in wells installed on the Allsups property.

Analysis of available subsurface data including the magnitude and extent of soil vapor, total petroleum hydrocarbons (TPH) in soil, and dissolved-phase hydrocarbons in groundwater indicate the source of the extensive hydrocarbon plume is the former Shamrock station (also known as the "Y Station") located at the intersection of Prince and Commerce Streets. This hydrocarbon plume has contaminated many surrounding properties including the Allsups 320 property and the adjacent Clovis Shopping Center property.

2.0 INTRODUCTION

2.1 BACKGROUND/SITE HISTORY

In early 2011, Allsups demolished and removed the old service station and convenience store and constructed a new larger modern facility at the Site. During the station upgrade, three former 8,000-gallon gasoline-containing petroleum storage tanks (PSTs) including piping and dispensers were removed. Elevated photoionization detector (PID) and soil laboratory readings were observed on select samples collected from immediately beneath the tank excavation (BEI 2011). A release notification was then submitted to the NMED.

BEI, on behalf of Allsups and NMED, subsequently performed drilling activities at the Site as part of a phased site investigation (Figure 2). Initial investigation activities, which included advancement and sampling of 3 soil borings (B-1, B-2, and B-3) and 3 nested multiple completion wells (BW-1; BW-2; and BW-3), focused on the potential release of hydrocarbons from the former PST systems at the Allsups 320 property. However, with the installation of four off-site single completion wells in early 2014 (BW-4d, BW-5d, BW-6d, and BW-7d) it became apparent that significant and previously unknown off-site hydrocarbon source(s) were present south of the Allsups property.

The EOSI documented herein was approved by the NMED in an effort to characterize the extent of off-site contamination and identify its source(s).

2.2 SCOPE OF WORK

BEI's original scope of work for this phase of the project consisted of four primary tasks:

- Install and sample three nested monitor wells.
- Properly dispose of investigative-derived waste (IDW).
- Prepare and submit and summary report to NMED.
- Coordinate groundwater sampling of the newly installed wells with previous NMED-approved groundwater sampling events.

3.0 PHYSICAL SETTING

3.1 PHYSIOGRAPHY/LAND USE

The Allsups 320 facility is located at the intersection of Prince Street and 21st Street in Clovis, New Mexico. The former Shamrock station is located more than 300 feet south at the intersections of Prince and Commerce Streets as highlighted on Figure 2. Site elevation is approximately 4,280 feet above mean sea level. Topography in the site vicinity generally slopes gently to the south and southeast. Several small lakes are located between 0.5 miles and 1 mile from the Site (Figure 1).

In general, the areas immediately surrounding the Site are characterized by commercial and retail use along the primary roads with residential housing located along the smaller side streets. A large shopping mall is located to the east and south. Archival research has identified three former service stations in the immediate site vicinity other than the Allsups facility (Figure 2). Prince Street 66 was located immediately west of Allsups and is now the location of Fast Bucks auto loan. Completion of a MSA by Souder, Miller, and Associates, Inc. (SMA) at this facility in 2002 following tank removal suggested that hydrocarbon releases were minor in nature and not vertically extensive. A second unnamed service station was located on the north side of Commerce Avenue just west of the edge of the map on Figure 2 and north of the Twin Cronies restaurant. The third facility is the former Shamrock station discussed earlier. Also known as the Y-Station, this facility operated between the late 1950's through approximately 1981. The apparent location of the former PSTs at this facility were in the current location of the widened Commerce Street as it enters Prince Street.

3.2 HYDROGEOLOGIC SETTING

During the combined BEI investigations, six nested wells (BW-1, BW-2, BW-3, BW-8, BW-9, and BW-10), and four single completion wells (BW-4d, BW-5d, BW-6d, and BW-7d) were advanced in the Site vicinity at the locations shown in Figure 2. Retrieved soil samples from BEI advanced boreholes identified four primary Lithologic Units in the Site vicinity. These Units are highlighted in the cross sections shown in Figures 3a, and 3b and the corelog/well completion diagrams located in Appendix A.

Lithologic Unit I consists predominantly of clayey sand, silt, and very fine sand. This Unit extends from the land surface to approximately 20 to 30 feet bsg and transitions into the underlying Unit II. Minor to moderate stage 1 to 2 discontinuous caliche intervals are present

towards the bottom of Lithologic Unit I. Lithologic Unit II consists primarily of silty sand with prominent stage 2 to 4 caliche extending from the base of Lithologic Unit I to approximately 67 to 75 feet bsg. The dense cemented carbonate in this interval was locally laminar and also fractured in nature. Lithologic Unit III extends below Unit II to a depth of between approximately 280 to 348 feet bsg and consists of very fine sand with trace to low amounts of silt. Minor disseminated carbonate was observed in this Unit. Bedding surfaces observed in the split spoons appeared at or nearly horizontal in nature when present. Lithologic Unit IV extends below Lithologic Unit III to the base of each borehole and consists predominantly of silty sands, sandy silts, and localized thin carbonate cemented fine sandstone layers and nodules.

Depth to groundwater in deep wells was approximately 323 to 327 feet bsg during the March 2016 sampling and gauging event. A potentiometric surface map using the data collected from this event is presented in Figure 4. Calculated groundwater flow direction is to the south and southeast at a hydraulic gradient of approximately 0.0026 to 0.042 feet/foot. Based on discussions with local water well drillers, the regional groundwater has been falling several feet per year for several decades in the Site vicinity. Between April 2012 and March 2016, water levels declined in well BW-1d by nearly 5 feet.

Multiple high yield City of Clovis municipal wells are located primarily west of the Site, which may affect groundwater flow.

4.0 FIELD AND LABORATORY SAMPLING METHODS AND PROCEDURES

4.1 GENERAL

This section describes the methods and procedures for the following project activities:

- Soil Boring Advancement and Monitor Well Completion
- Subsurface Soil Sampling and Analysis
- Soil Vapor Sampling and Analysis
- Groundwater Sampling and Analysis

As per the requirements of CFR 1910.120, BEI prepared a site-specific Health and Safety Plan prior to initiation of field activities in the Site vicinity.

4.2 SOIL BORING/MONITOR WELL INSTALLATION

Three soil borings (BW-8, BW-9, and BW-10) were advanced in the Site vicinity in November and December 2015 using a Speedstar 50k air-rotary casing hammer (ARCH) drilling rig operated by Yellowjacket Drilling Services, Inc. (Yellowjacket). The Borehole lithologic logs and monitor well completion diagrams are located in Appendix A. In nested well BW-8, the shallow depth well (115 to 175 feet bsg) and the intermediate depth well (200 to 260 feet bsg) were both constructed of 2-inch diameter schedule 80 PVC with 0.02-inch slotted well screens and blank casing. The deep depth well (287 to 347 feet bsg) was constructed of 4-inch diameter schedule 80 PVC with 0.01-inch slotted well screen and blank casing.

In nested well BW-9, the shallow depth well (182 to 217 feet bsg) and the intermediate depth well (227 to 262 feet bsg) were also constructed of 2-inch diameter schedule 80 PVC with 0.02-inch slotted well screens and blank casing. The deep depth well (287 to 347 feet bsg) was constructed of 4-inch diameter schedule 80 PVC with 0.01-inch slotted well screen and blank casing.

In nested well BW-10, the shallow depth well (192 to 232 feet bsg) and the intermediate depth well (247 to 282 feet bsg) were constructed of 2-inch diameter schedule 80 PVC with 0.02-inch slotted well screens and blank casing. The deep depth well (306 to 346 feet bsg) was constructed of 4-inch diameter schedule 80 PVC with 0.01-inch slotted well screen and blank casing. A five-foot long blank sump was put on the bottom of each deep completion well.

In each of the nested wells a 10-20 silica sandpack was emplaced in the borehole across each of the well screens. Hydrated bentonite pellets and a 6%/94% bentonite-cement grout were used to isolate the screened intervals of the wells clusters as shown on the well completion diagrams. Bentonite was hydrated in approximately two-foot lifts by adding water. A 6%/94%bentonite-cement grout was emplaced from the top of the upper bentonite seal to just below the land surface in multiple lifts, followed by an 18-inch diameter manway and concrete apron. A compression plug and lock was inserted in the top of each PVC well casing.

The boreholes were logged by observing drilling cuttings and through the collection of split-spoon samples in discrete locations. Split-spoon samplers were decontaminated between sample runs using an alconox and tap water rinse. Retrieved sediments were logged by a BEI Geologist using the Unified Soil Classification System (USCS) method.

Drill cuttings were temporarily stored on-site in a 20-yard^3 plastic-lined rolloff container for later removal by Gandy Marley, Inc. to their permitted landfarm in Tatum, New Mexico for final disposition. Waste disposal manifests are included in Appendix B.

4.3 SOIL SAMPLING AND ANALYSIS

During drilling activities, retrieved sediment samples were collected from the borehole and analyzed in the field for total ionizable volatile compounds (TIVC) using a RAE-2000 photoionization detector (PID) utilizing a 10.6 eV lamp. 100 ppm/v isobutylene span gas and ambient air were used to calibrate the PID prior to use.

Results of the field headspace analysis are presented on the borehole logs in Appendix A. In addition, sediment samples were also collected using the PSTR Methanol Extraction Method at discrete locations in each borehole. Results of the laboratory analyses are presented in Table 2 and Appendix C. These samples were hand delivered on ice to Hall Environmental Laboratory Inc. (HEAL) in Albuquerque, New Mexico for laboratory analyses. Laboratory soil samples were analyzed for one or more of the following parameters:

- Total petroleum hydrocarbons $(TPH)_{gasoline\ range}$ using EPA Method 8015 modified.
- BTEX, tri-methyl benzenes (TMBs), and methyl tertiary butyl ether (MTBE) using EPA Method 8021.

During the Investigation, all samples were handled using strict chain-of-custody procedures.

Laboratory reports including chain-of-custody documentation are presented in Appendix C.

4.4 WELLHEAD SOIL VAPOR SAMPLING AND ANALYSIS

During prior activities at the Site, monitor wells were observed to occasionally vent under positive pressure as a result of changes in local atmospheric conditions. After discussions with NMED, it was decided to collect tedlar bag samples for laboratory analysis of the off-gas vapors should conditions be favorable.

During an inspection of the Site on the evening of January 19, 2016, all wells were found to be venting under positive pressure. The well caps were removed and the wells were allowed to purge to obtain representative vapor samples. Between 17:20 and 18:45 vapor samples were collected from each of the shallow, intermediate, and deep wells in the Site vicinity (22 well casings total). Results of the laboratory analysis are summarized in Table 3.

Prior to use, the BEI RAE-2000 photoionization detector (PID), utilizing a 10.6 eV lamp, was calibrated using 100 ppm/v isobutylene span gas and ambient air. A 1.0 response factor was programmed into the PID. Each well was then sampled using the following methodology. Samples were collected using a Model 1060H Xi-Tech, Inc. vacuum bag sampler with an approximately two-foot long clear tygon tube lowered into the well casing. The pump and tubing were purged with actively venting well gases and then used to fill a new unused 1.0-liter tedlar bag supplied by HEAL for laboratory analyses. New tygon tubing was used between each well. As no parts on the vacuum bag sampler came into contact with the extracted well vapors, decontamination of the sampler between wells was not necessary. The collected samples were then stored on-ice and hand-delivered to HEAL and were analyzed for the following parameters:

- Total petroleum hydrocarbons $(TPH)_{gasoline\ range}$ using EPA Method 8015 modified.
- BTEX, and MTBE using EPA Method 8021.

During the sampling event, all samples were handled using strict chain-of-custody procedures. Laboratory reports including chain-of-custody documentation are presented in Appendix C. Results of the laboratory analyses are presented in Table 3 and in Figure 5.

4.5 GROUNDWATER SAMPLING AND ANALYSIS

During the week of March 29, 2016, groundwater samples were collected from all 10 deep monitor wells for laboratory analysis. Groundwater laboratory analytical results are presented on Table 3, Figures 6, 7, 8, and 9, and in Appendix C.

Prior to sampling, the water level in each well was measured and also gauged for the presence of light non-aqueous phase liquids (LNAPL). Temperature, pH, and conductivity measurements were taken during well purging to document well stabilization. Approximately 50 gallons of water and sediment was removed from each of the three new deep wells (BW-8d, BW-9d, and BW-10d) by swabbing and bailing. All ten deep wells were subsequently purged using a Grundfos downhole pump or a 10-foot long stainless steel bailer mounted on a workover rig provided by Yellowjacket. At least 3 well volumes were removed from each well prior to collection of groundwater samples. The downhole pump and the bailer were decontaminated prior to use and between each well by steam cleaning and using an alconox and tap water rinse. Unlike previous sampling events, low flow sampling techniques were used to purge the wells with the pump set near the top of the water column in each well.

Once the wells were purged, groundwater samples were collected from each well using a new unused disposable bailer lowered into the well on the end of a water level probe. Samples were collected from the upper 3 feet of the water column in each well. Additionally, a blind duplicate was collected from well BW-8d during the sampling event for quality assurance/quality control (QA/QC) purposes. Collected samples were stored in 40-milliliter vials preserved with mercuric chloride. Samples were collected using strict chain-of-custody procedures, stored on ice in a cooler, and hand-delivered to HEAL in Albuquerque, New Mexico. Purge water was discharged to an on-site paved surface to allow volatilization of any volatile organic compounds (VOCs) per NMED guidance documents.

Laboratory groundwater samples were analyzed for the following parameters:

- VOCs including BTEX, TMBs), EDC, EDB, NAPH, and MTBE using EPA Method 8260

5.0 RESULTS OF THE COMBINED INVESTIGATIONS

5.1 HYDROCARBON DISTRIBUTION IN SOIL

Estimates on the magnitude and extent of subsurface hydrocarbons in the Site vicinity are based on data collected during the combined MSA, OSI and EOSI drilling events and from the January 2016 soil vapor survey. Table 2 and Appendix A present summaries of field headspace and/or laboratory analytical results for soil samples collected during recent BEI subsurface drilling operations. Soil headspace concentrations measured during drilling and data summarizing extracted gasoline vapor concentrations recovered during the vapor survey are presented in cross-sectional view in Figures 3a and 3b and in plan view in Figure 5.

Thirteen soil borings have been drilled in the Site vicinity during the recent BEI investigations. The initial three borings (B-1, B-2, and B-3) were advanced in March 2011 using hollow-stem auger (HSA) drilling techniques that did not involve significant aeration of VOCs during the sample collection process. As a result, both laboratory and field headspace analysis of retrieved sediments are generally representative of actual subsurface conditions. Although these borings did not reach the water table, they provide important data on site lithology and hydrocarbon distribution in the immediate vicinity of the Allsups property. The subsequent ten soil borings were advanced to below the water table and completed as nested groundwater monitor wells (BW-1, BW-2, BW-3, BW-8, BW-9, and BW-10) and single completion wells (BW-4d, BW-5d, BW-6d, and BW-7d) using air-rotary casing hammer (ARCH) drilling techniques.

Significant aeration of subsurface sediments occurs during the advancement of the boreholes and transport of drill cuttings to the surface using ARCH techniques. Headspace analysis of retrieved cuttings from the ARCH-advanced wells typically did not exceed 3 parts per million/volume (ppm/v) using a PID with the exception of locations BW-5 and BW-8. PID analysis of drill cuttings retrieved from depths between approximately 300 and 328 feet bsg in BW-5 yielded elevated concentrations as high as $\geq$243 ppm/v. PID analysis of drill cuttings retrieved from depths between approximately 305 and 328 feet bsg in BW-8 yielded elevated concentrations as high as $\geq$67 ppm/v.

Headspace analysis was also collected on split-spoon samples at discrete locations during advancement of the ARCH wells. Whenever possible the casing was advanced to the depth of the split spoon sample and the borehole allowed to equilibrate for as long as possible prior to actual collection of the split spoon. This methodology provided a better representation of subsurface hydrocarbon levels and revealed the presence of elevated gasoline hydrocarbons in

the vicinity of wells BW-4d, BW-5d, BW-7d and BW-8, near the groundwater table.

Previous estimates on the magnitude and extent of subsurface soil hydrocarbons in the Site vicinity were based on data collected during the combined drilling events and from the SVE pilot testing event. Unfortunately, these soils data were collected using a variety of sampling techniques over a several year period making comparison between locations and across the site vicinity somewhat problematic.

Soil vapor data collected during the January 2016 soil vapor sampling event provides the most accurate data on hydrocarbon concentrations and distribution in the subsurface. The well soil vapor survey was performed over an 85-minute period using the same sampling methodology on wells of similar construction to accurately characterize shallow, intermediate, and deep zone in-situ subsurface vapor hydrocarbon conditions across the Site vicinity. These data are summarized in Table 3 and Figures 3a, 3b, and 5.

The highest soil vapor TPH concentrations (191,000 micrograms/liter [ug/l], and total BTEX concentrations (5,080 ug/l) were present in deep zone well BW-5d. Nearby deep zone wells BW-7d and BW-8d also exhibited very high levels of soil vapor TPH (82,500 and 85,000 ug/l, respectively) and total BTEX (2,427 and 2,338, ug/l, respectively). TPH and total BTEX levels in samples collected from other deep wells in the site vicinity were substantially lower, especially from BW-2d, BW-3d, and BW-6d on or adjacent to the Allsups property and BW-9d and BW-10d to the far south and west (Figure 5).

The pattern of TPH and BTEX distribution in soil vapors clearly indicate an off-site hydrocarbon source in the immediate vicinity of the former Shamrock station, which mirrors the groundwater quality data presented below. Furthermore, these data suggest that the hydrocarbon release from the former Allsups/Target PSTs was not of significant magnitude to overprint a separate hydrocarbon signature onto the extensive trespassing hydrocarbon release from the south.

5.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER

Historic groundwater flow determined by calculating the potentiometric surface for the gauging events conducted between September 2012 and September 2015 was southerly. During this most recent March 29, 2016 event, groundwater flow was calculated to be south and southeasterly (Figure 4).

Results of the March 2016 groundwater-sampling event are highlighted in Figures 6 through 9

and in Table 4. Combined sampling data indicate the presence of a large dissolved-phase gasoline hydrocarbon groundwater plume centered on the immediate vicinity of the former Shamrock station at the intersection of Prince and Commerce Streets.

Benzene was detected at levels exceeding the 10 ppb WQCC standard in groundwater samples collected from five wells, with the highest concentrations in off-site wells BW-5d (5,000 ppb), BW-7d (8,800 ppb) and BW-8d (3,900 and 4,300 ppb). Only one well (BW-1d) on the Allsups property contained benzene above MDLs at a concentration of 40 ppb. Samples collected from well BW-4d contained benzene at 200 ppb. Groundwater isoconcentration maps highlighting both EDC and total naphthalenes (NAPH) are presented in Figures 7 and 8, respectively. EDC exceeded the 10 ppb WQCC standard in wells BW-5d (230 ppb), BW-7d (580 ppb), and BW-8d (95 and 110 ppb). NAPH exceeded the 30 ppb WQCC standard in wells BW-7d (120 ppb) and BW-8d (<500 and 100 ppb). Total xylenes, EDB, and toluene were also identified in groundwater samples at concentrations above standards in one or more off-site wells.

The compound acetone was found as a distinct chemical signature in the off-site wells immediately surrounding the former Shamrock station: BW-5d (600 ppb), BW-7d (560 ppb), and BW-8d (1,200 and 1,300 ppb). Acetone was not identified in samples collected from any other well in the site vicinity at levels exceeding MDLs during the March 2016 sampling event.

As noted in earlier reports, the presence of the lead scavengers EDB and EDC in groundwater suggest that at least portions of the hydrocarbon release(s) occurred pre-1978 when the sale of leaded gasoline was discontinued in the United States for use in private and commercial vehicles.

In general, discounting lithologic heterogeneities, the highest levels of soil and groundwater contamination at a hydrocarbon release site are typically found in the immediate vicinity of the source area. Additionally, partitioning of individual chemical constituents in a gasoline plume favors migration of more soluble compounds such as benzene vs. less soluble compounds such as NAPH. BW-5, BW-7d, and BW-8 appear to be the closest wells to the primary hydrocarbon source impacting soil and groundwater taking these factors into account.

6.0 CONCLUSIONS

Based on the available data collected during the MSA, OSI, and EOSI drilling events and the soil vapor survey, the following conclusions are presented for the Site vicinity:

- Depth to groundwater is approximately 323 to 327 feet bsg. Groundwater flow is currently to the south and southeast at a hydraulic gradient of approximately 0.0026 to 0.042 feet/foot and has remained relatively consistent since 2012.

- Retrieved soil samples from BEI advanced boreholes identified four primary Lithologic Units at the Site as shown in Figures 3a and 3b.

- Vadose zone gasoline hydrocarbons in the Site vicinity are primarily in the vapor-phase with localized areas of adsorbed-phase contamination. Gasoline vapors are vertically extensive extending to the water table. The horizontal extent of hydrocarbon vapors in the vadose zone is greater than approximately 800 feet long by 600 feet wide (Figure 5).

- The highest levels of dissolved-phase BTEX, EDC, EDB, and NAPH are present in groundwater wells located in the immediate vicinity and south (downgradient) of the former Shamrock station.

- Based on soil and groundwater hydrocarbon plume geometry, the UST systems at or near the former Shamrock station located at Prince and Commerce Streets were the primary source of hydrocarbons in the area.

- The extensive hydrocarbon releases from the former Shamrock station have contaminated many surrounding properties including the Allsups 320 property and the adjacent Clovis Shopping Centers property.

7.0 RECOMENDATIONS

Based on the available data the following recommendations are presented for the Site vicinity:

- Based on the combined data presented above, Allsups has fulfilled its requirements under the NM Petroleum Storage Tank Regulations (PSTR).

- The regular groundwater-monitoring schedule should be continued in the Site vicinity to evaluate plume migration and longer-term groundwater quality trends and protect public heath and the environment.

- Due to the orphan nature of the contaminant plume combined with its large size and complexity, Allsups and BEI believe this site is a good candidate for State-lead remedial actions in the future.

8.0 STATEMENT OF FAMILIARITY

We are personally familiar with the information presented in this report and it is accurate and complete to the best of our knowledge.

Brown Environmental, Inc.

William J. Brown, PG
Vice President

EXPLANATION:

Downloaded from Google Earth Maps,
Image @ 2009 DigitalGlobe @ 2011 Tele Atlas

NORTH

scale

0 0.25 0.5 mile

SITE VICINITY MAP

Allsups #320 Facility Vicinity
Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. BOX 333 PLACITAS, NM 87043

Drawn by:	WJB	5/16	Client: Allsups Petroleum
Drafted by:	EMB	5/16	Job #: 1070
Reviewed by:	WJB	5/16	Figure: 1

TABLE 1 -
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS
ALLSUPS #320 VICINITY - CLOVIS, NEW MEXICO

LOCATION OF WELL	DATE OF MEASUREMENT	TOP OF CASING ELEVATION (in feet msl)	DEPTH TO GROUNDWATER (in feet)	GROUNDWATER ELEVATION (in feet msl)	TOTAL DEPTH OF WELL* (in feet)	WATER COLUMN THICKNESS (in feet)
BW-1d	4/13/12	4279.88	322.49	3957.39	344.48	21.99
	7/27/12	4279.88	322.69	3957.19	344.48	21.79
	9/24/12	4279.88	322.75	3957.13	344.48	21.73
	4/29/14	4279.63	325.75	3953.88	341.50	15.75
	5/8/15	4279.63	326.60	3953.03	341.50	14.90
	9/10/15	4279.63	326.96	3952.67	341.70	14.74
	3/29/16	4279.63	327.12	3952.51	341.50	14.38
BW-2d	10/26/09	4280.53	323.12	3957.41	347.60	24.48
	9/24/12	4280.53	323.21	3957.32	347.60	24.39
	4/29/14	4280.38	326.14	3954.24	345.40	19.26
	5/8/15	4280.38	327.00	3953.38	345.40	18.40
	9/10/15	4280.38	327.33	3953.05	345.40	18.07
	3/29/16	4280.38	327.52	3952.86	345.40	17.88
BW-3d	10/26/09	4280.17	322.36	3957.81	347.20	24.84
	9/24/12	4280.17	322.44	3957.73	347.20	24.76
	4/29/14	4279.98	325.38	3954.60	347.20	21.82
	5/8/15	4279.98	326.20	3953.78	347.20	21.00
	9/10/15	4279.98	326.56	3953.42	347.20	20.64
	3/29/16	4279.98	326.71	3953.27	347.20	20.49
BW-4	4/29/14	4280.20	326.04	3954.16	349.39	23.35
	5/8/15	4280.20	326.80	3953.40	349.39	22.59
	9/10/15	4280.20	327.23	3952.97	349.39	22.16
	3/29/16	4280.20	327.27	3952.93	349.39	22.12
BW-5	4/29/14	4279.06	325.53	3953.53	352.72	27.19
	5/8/15	4279.06	326.27	3952.79	352.72	26.45
	9/10/15	4279.06	326.73	3952.33	352.72	25.99
	3/29/16	4279.06	326.87	3952.19	352.72	25.85
BW-6	4/29/14	4280.34	326.46	3953.88	350.60	24.14
	5/8/15	4280.34	327.27	3953.07	350.60	23.33
	9/10/15	4280.34	327.60	3952.74	350.60	23.00
	3/29/16	4280.34	327.70	3952.64	350.60	22.90
BW-7	4/29/14	4277.55	324.63	3952.92	349.00	24.37
	5/8/15	4277.55	325.42	3952.13	349.00	23.58
	9/10/15	4277.55	325.84	3951.71	332.30	6.46
	3/29/16	4277.55	326.01	3951.54	349.00	22.99
BW-8	3/29/16	4278.78	326.61	3952.17	349.00	22.39
BW-9	3/29/16	4278.44	326.30	3952.14	349.00	22.70
BW-10	3/29/16	4275.16	323.92	3951.24	349.00	25.08

TABLE 2
SUMMARY OF SOIL LABORATORY ANALYTICAL DATA ALLSUPS #320 FACILITY
CLOVIS, NEW MEXICO

LOCATION OF SAMPLE	SAMPLE DATE	LABORATORY ANAYLTICAL METHOD	TPH GASOLINE RANGE ORGANICS (GRO) (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	METHYL TERTIARY BUTYL ETHER (MTBE) (mg/kg)
Tank #1 North 15'	1/11	8015/8021	2770	4.5	85	46	470	<5.0
Tank #1 South 13'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
Tank #2 North 15'	1/11	8015/8021	27.7	0.076	0.33	0.57	3.2	<0.10
Tank #2 South 13'	1/11	8015/8021	10.1	<0.050	<0.050	<0.050	0.28	<0.10
Tank #3 North 12'	1/11	8015/8021	19.4	<0.050	<0.050	0.081	1.0	<0.10
Tank #3 South 13'	1/11	8015/8021	381	0.82	19	11	56	<1.0
Product Line #1 4'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
SW Dispenser 3'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
NW Dispenser 3'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
NE Dispenser 3'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
SE Dispenser 3'	1/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-1-37' (Caliche)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-1-63' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-2-40' (Caliche)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-2-69' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-3-54' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-3-73-74' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	0.12	<0.10
B-3-104' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
B-3-159' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	0.10
B-3-189' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	0.15	0.11
B-3-209' (SM)	3/11	8015/8021	<5.0	<0.050	<0.050	<0.050	<0.050	<0.10
BW-1-219' (SM)	2/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	0.21*
BW-1-239' (SM/ML)	2/12	8015/8021	25.6*	<0.050*	0.17*	0.16*	2.0*	<0.10*
BW-1-289' (SM)	2/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-1-309' (SM)	2/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-2-78' (SM/ML)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-2-158' (SM)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-2-278' (SM)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-2-320' (SM/ML)	7/12	8015/8021	9.35*	0.099*	<0.050*	0.081*	0.40*	<0.10*
BW-3-78.5' (SM/ML)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-3-158' (SM)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-3-239' (SM/ML)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-3-319' (SM/ML)	7/12	8015/8021	<5.0*	<0.050*	<0.050*	<0.050*	<0.10*	<0.10*
BW-4-202' (SM)	2/14	8015/8021	<3.2*	<0.032*	<0.032*	<0.032*	<0.064*	<0.064*
BW-4-282' (SM)	2/14	8015/8021	<2.9*	<0.029*	0.046*	<0.029*	<0.058*	<0.058*
BW-4-322' (SM)	2/14	8015/8021	<2.8*	<0.028*	<0.028*	<0.028*	<0.055*	<0.055*
BW-5-122' (SM/ML)	2/14	8015/8021	<3.5*	<0.035*	<0.035*	<0.035*	<0.070*	<0.070*
BW-5-242' (SM/ML)	2/14	8015/8021	<2.4*	<0.024*	<0.024*	<0.024*	<0.048*	<0.048*
BW-5-282' (SM)	2/14	8015/8021	4.08*	0.17*	0.45*	0.072*	0.50*	<0.046*
BW-5-322' (SM)#1	2/14	8015/8021	<2.9*	<0.029*	<0.029*	<0.029*	<0.058*	<0.058*
BW-5-322' (SM)#2	2/14	8015/8021	121*	<0.33*	<0.33*	0.42*	5.8*	<0.65*
BW-6-122' (SM)	2/14	8015/8021	<3.4*	<0.034*	<0.034*	<0.034*	<0.069*	<0.069*
BW-6-242' (SM)	2/14	8015/8021	<3.3*	<0.033*	<0.033*	<0.033*	<0.067*	<0.067*
BW-6-281.5' (SM)	2/14	8015/8021	<3.6*	<0.036*	<0.036*	<0.036*	<0.071*	<0.071*
BW-6-323.5' (SM)	2/14	8015/8021	<2.9*	<0.029*	<0.029*	<0.029*	<0.058*	<0.058*
BW-7-122' (SM)	2/14	8015/8021	<3.0*	<0.030*	<0.030*	<0.030*	<0.060*	<0.060*
BW-7-202' (SM/ML)	2/14	8015/8021	<2.8*	<0.028*	<0.028*	<0.028*	<0.055*	<0.055*
BW-7-282' (SM)	2/14	8015/8021	<2.7*	0.037*	0.040*	<0.027*	<0.055*	<0.055*
BW-7-322' (SM)	2/14	8015/8021	<2.8*	0.13*	0.16*	<0.028*	0.082*	<0.057*
BW-8-81' (SM)	11/15	8015/8021	<3.3*	<0.033*	<0.033*	<0.033*	<0.066*	<0.066*
BW-8-141' (SM)	11/15	8015/8021	<3.2*	<0.032*	<0.032*	<0.032*	<0.064*	<0.064*
BW-8-241' (SM/ML)	11/15	8015/8021	<3.2*	<0.032*	0.072*	<0.032*	0.14*	<0.063*
BW-8-281' (SM)	11/15	8015/8021	<3.0*	<0.030*	<0.030*	<0.030*	<0.061*	<0.061*
BW-8-321' (SM/ML)	11/15	8015/8021	<3.5*	<0.035*	<0.035*	<0.035*	<0.070*	<0.070*
BW-9-141' (SM)	11/15	8015/8021	<4.2*	<0.042*	<0.042*	<0.042*	<0.084*	<0.084*
BW-9-241' (SM/ML)	11/15	8015/8021	<3.3*	<0.033*	<0.033*	<0.033*	<0.065*	<0.065*
BW-9-281' (SM/ML)	11/15	8015/8021	<3.6*	<0.036*	<0.036*	<0.036*	<0.072*	<0.072*
BW-9-321' (SM/ML)	11/15	8015/8021	<3.4*	<0.034*	<0.034*	<0.034*	<0.068*	<0.068*
BW-10-141' (SM/ML)	12/15	8015/8021	<4.1*	<0.041*	<0.041*	<0.041*	<0.083*	<0.083*
BW-10-201' (SM)	12/15	8015/8021	<2.8*	<0.028*	<0.028*	<0.028*	<0.056*	<0.056*
BW-10-261' (SM)	12/15	8015/8021	<2.9*	<0.029*	<0.029*	<0.029*	<0.059*	<0.059*
BW-10-323' (SM/ML)	12/15	8015/8021	<2.7*	<0.027*	<0.027*	<0.027*	<0.053*	<0.053*

*=sample collected from split spoon during ARCH drilling and may have been aerated

TABLE 3
SUMMARY OF MONITOR WELL OFF-GAS VAPOR ANALYTICAL DATA 1/14/16
ALLSUPS #320 FACILITY CLOVIS, NEW MEXICO

SAMPLE ID		BTEX/TPH LABORATORY RESULTS					
TEST WELL	DATE	BENZENE (ug/l)	TOLUENE (ug/l)	ETHYL BENZENE (ug/l)	TOTAL XYLENES (ug/l)	BTEX (total) (ug/l)	TPH GRO C5-C14 (ug/l)
BW-1s	1/14/16	0.6	0.4	<0.10	0.6	1.7	155
BW-1i	1/14/16	30	2.9	<2.5	14	47	8,260
BW-1d	1/14/16	180	<5.0	<5.0	<10	180	23,400
BW-2s	1/14/16	0.17	0.21	<0.10	0.37	0.75	29.1
BW-2i	1/14/16	3.4	2.0	<0.20	3.9	9.3	255
BW-2d	1/14/16	<0.10	<0.10	<0.10	<0.20	<0.50	231
BW-3s	1/14/16	15	4.7	<1.0	6.9	27	607
BW-3i	1/14/16	79	94	10	62	245	2,890
BW-3d	1/14/16	10	11	1.4	12	34	591
BW-4d	1/14/16	240	160	12	51	463	23,600
BW-5d	1/14/16	2,400	2,100	120	460	5,080	191,000
BW-6d	1/14/16	8.6	1.9	<0.50	<1.0	10.5	1,910
BW-7d	1/14/16	840	1,100	77	410	2,427	82,500
BW-8s	1/14/16	72	140	12	52	276	5,100
BW-8i	1/14/16	830	1,200	81.0	340.0	2,451	53,300
BW-8d	1/14/16	830	1,100	78	330	2,338	85,000
BW-9s	1/14/16	7.7	1.9	<0.20	0.7	10.3	485
BW-9i	1/14/16	7.4	2.1	<0.50	<1.0	9.5	591
BW-9d	1/14/16	1.6	0.4	<10	0.2	2.2	150
BW-10s	1/14/16	<0.10	0.24	<0.10	<0.20	0.24	6.22
BW-10i	1/14/16	<0.10	0.20	<0.10	<0.20	0.20	8.36
BW-10d	1/14/16	<0.10	<0.10	<0.10	<0.20	<0.50	<5.0

TABLE 4
SUMMARY OF ORGANIC GROUNDWATER LABORATORY ANALYTICAL DATA-
ALLSUPS #320 VICINITY, CLOVIS, NM

LOCATION OF WELL	SAMPLE DATE	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	TOTAL XYLENES ug/l	METHYL-TERTIARY BUTYL ETHER ug/l	TRI-METHYL BENZENES ug/l	1,2-DICHLORO-ETHANE (EDC) ug/l	1,2-DIBROMO-ETHANE (EDB) ug/l	NAPHTH + MONO-METHYL NAPHTH ug/l
WQCC/PSTR STANDARDS		10	750	750	620	100		10	0.1	30
BW-1d	04/13/12	240	61	4.5	20	1.6	6.3	3.5	<1.0	<10
	09/25/12	290	29	4.9	34	<1.0	11.3	5.2	<1.0	<10
(duplicate)	09/25/12	200	46	7.8	45	<1.0	13.5	6.2	<1.0	<10
	04/30/14	50	6.0	<1.0	1.6	<1.0	2.5	1.4	<1.0	<10
	05/07/15	130	5.5	<1.0	5.6	1.1	8.9	2.6	<1.0	<10
	09/11/15	13	55	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	03/30/16	40	130	<1.0	<1.5	<1.0	<2.0	1.3	<1.0	<10
BW-2d	09/25/12	21	15	<1.0	6.2	<1.0	2.5	1.0	<1.0	<10
	04/29/14	<1.0	5.6	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	05/07/15	<1.0	18	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	09/10/15	7.2	21	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	03/29/16	<1.0	97	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
BW-3d	09/25/12	1.4	56	<1.0	6.1	<1.0	1.9	<1.0	<1.0	<10
	04/29/14	<1.0	14	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	05/07/15	2.6	5.0	<1.0	3.5	<1.0	<2.0	<1.0	<1.0	<10
	09/10/15	<1.0	46	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	03/29/16	<1.0	180	<1.0	2.2	<1.0	<2.0	<1.0	<1.0	<10
BW-4	04/30/14	<1.0	11	<1.0	<1.5	<1.0	<2.0	1.8	<1.0	<10
	05/07/15	1,100	1,100	61	600	<1.0	67	32	<1.0	<10
	09/10/15	1.9	43	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	03/30/16	200	200	5.1	33	<1.0	4.4	6.9	<1.0	<10
BW-5	04/29/14	2,100	1,800	200	990	<1.0	138	100	29	59.9
	05/08/15	3,700	2,800	300	1,700	<5.0	256	180	51	83
	09/11/15	2,000	1,400	220	900	<5.0	216	100	18	80
duplicate	09/11/15	1,900	1,300	230	960	<5.0	228	100	20	64
	03/30/16	5,000	4,200	500	2,000	<5.0	381	230	54	<500
BW-6	04/29/14	<1.0	10	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	05/07/15	<1.0	8.4	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	09/10/15	<1.0	36	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	03/29/16	<1.0	130	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
BW-7	04/30/14	990	3.4	67	260	<1.0	51	75	2.6	21.1
duplicate	04/30/14	1,100	4.4	74	300	<1.0	55	75	2.9	20.1
	05/08/15	3,200	1,200	210	920	<1.0	128	230	9.6	45.5
	09/11/15	9,400	5,000	750	2,600	<1.0	488	590	36	204
	03/31/16	8,800	2,900	650	2,100	<1.0	464	580	<50	120
BW-8d	03/31/16	3,900	5,400	440	2,400	<1.0	347	210	95	<500
duplicate	03/31/16	4,300	5,900	500	2,700	<1.0	384	230	110	100
BW-9d	03/30/16	<1.0	190	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
BW-10d	03/29/16	<1.0	280	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
trip blank	4/13/12	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	9/25/12	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	5/7/15	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	9/14/15	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10
	3/29/16	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<1.0	<1.0	<10

ALL CONCENTRATIONS REPORTED IN micrograms/liter (ug/l)

NAPHTH: naphthalene
ug/l: micrograms/liter

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 25, 2015

Bill Brown
Brown Environmental Inc.
P. O. Box 886
Placitas, NM 87043
TEL: (505) 934-7707
FAX (505) 858-0707

RE: Allsups 320 OrderNo.: 1511994

Dear Bill Brown:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/23/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1511994**
Date Reported: **11/25/2015**

CLIENT: Brown Environmental Inc.
Project: Allsups 320
Lab ID: 1511994-001

Client Sample ID: BW-8-81' (SM)
Collection Date: 11/11/2015 11:40:00 AM
Matrix: MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Surr: BFB	78.8	66.2-112		%REC	1	11/24/2015 11:52:48 AM	22473
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.066		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Benzene	ND	0.033		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Toluene	ND	0.033		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Ethylbenzene	ND	0.033		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Xylenes, Total	ND	0.066		mg/Kg	1	11/24/2015 11:52:48 AM	22473
Surr: 4-Bromofluorobenzene	98.4	80-120		%REC	1	11/24/2015 11:52:48 AM	22473

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8-141' (SM)
Project: Allsups 320 **Collection Date:** 11/11/2015 3:10:00 PM
Lab ID: 1511994-002 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Surr: BFB	82.7	66.2-112		%REC	1	11/24/2015 12:17:29 PM	22473
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.064		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Benzene	ND	0.032		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Toluene	ND	0.032		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Ethylbenzene	ND	0.032		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Xylenes, Total	ND	0.064		mg/Kg	1	11/24/2015 12:17:29 PM	22473
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	11/24/2015 12:17:29 PM	22473

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8-241'(SM/ML)
Project: Allsups 320 **Collection Date:** 11/12/2015 2:00:00 PM
Lab ID: 1511994-003 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Surr: BFB	87.3	66.2-112		%REC	1	11/24/2015 12:42:09 PM	22473
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.063		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Benzene	ND	0.032		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Toluene	0.072	0.032		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Ethylbenzene	ND	0.032		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Xylenes, Total	0.14	0.063		mg/Kg	1	11/24/2015 12:42:09 PM	22473
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	11/24/2015 12:42:09 PM	22473

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8-281'(SM)
Project: Allsups 320 **Collection Date:** 11/12/2015 4:48:00 PM
Lab ID: 1511994-004 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Surr: BFB	81.2	66.2-112		%REC	1	11/24/2015 1:06:48 PM	22473
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.061		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Benzene	ND	0.030		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Toluene	ND	0.030		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Ethylbenzene	ND	0.030		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Xylenes, Total	ND	0.061		mg/Kg	1	11/24/2015 1:06:48 PM	22473
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	11/24/2015 1:06:48 PM	22473

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8-321'(SM/ML)
Project: Allsups 320 **Collection Date:** 11/12/2015 7:02:00 PM
Lab ID: 1511994-005 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/24/2015 1:31:26 PM	A30448
Surr: BFB	82.2	66.2-112		%REC	1	11/24/2015 1:31:26 PM	A30448
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.070		mg/Kg	1	11/24/2015 1:31:26 PM	B30448
Benzene	ND	0.035		mg/Kg	1	11/24/2015 1:31:26 PM	B30448
Toluene	ND	0.035		mg/Kg	1	11/24/2015 1:31:26 PM	B30448
Ethylbenzene	ND	0.035		mg/Kg	1	11/24/2015 1:31:26 PM	B30448
Xylenes, Total	ND	0.070		mg/Kg	1	11/24/2015 1:31:26 PM	B30448
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	11/24/2015 1:31:26 PM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9-141'(SM/ML)
Project: Allsups 320 **Collection Date:** 11/19/2015 8:10:00 AM
Lab ID: 1511994-006 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	11/25/2015 3:23:46 AM	A30448
Surr: BFB	74.4	66.2-112		%REC	1	11/25/2015 3:23:46 AM	A30448
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.084		mg/Kg	1	11/25/2015 3:23:46 AM	B30448
Benzene	ND	0.042		mg/Kg	1	11/25/2015 3:23:46 AM	B30448
Toluene	ND	0.042		mg/Kg	1	11/25/2015 3:23:46 AM	B30448
Ethylbenzene	ND	0.042		mg/Kg	1	11/25/2015 3:23:46 AM	B30448
Xylenes, Total	ND	0.084		mg/Kg	1	11/25/2015 3:23:46 AM	B30448
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	11/25/2015 3:23:46 AM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9-241'(SM/ML)
Project: Allsups 320 **Collection Date:** 11/19/2015 1:30:00 PM
Lab ID: 1511994-007 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	11/25/2015 3:48:02 AM	A30448
Surr: BFB	77.3	66.2-112		%REC	1	11/25/2015 3:48:02 AM	A30448
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.065		mg/Kg	1	11/25/2015 3:48:02 AM	B30448
Benzene	ND	0.033		mg/Kg	1	11/25/2015 3:48:02 AM	B30448
Toluene	ND	0.033		mg/Kg	1	11/25/2015 3:48:02 AM	B30448
Ethylbenzene	ND	0.033		mg/Kg	1	11/25/2015 3:48:02 AM	B30448
Xylenes, Total	ND	0.065		mg/Kg	1	11/25/2015 3:48:02 AM	B30448
Surr: 4-Bromofluorobenzene	97.2	80-120		%REC	1	11/25/2015 3:48:02 AM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9-281'(SM/ML)
Project: Allsups 320 **Collection Date:** 11/19/2015 3:26:00 PM
Lab ID: 1511994-008 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	11/25/2015 4:12:14 AM	A30448
Surr: BFB	74.7	66.2-112		%REC	1	11/25/2015 4:12:14 AM	A30448
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.072		mg/Kg	1	11/25/2015 4:12:14 AM	B30448
Benzene	ND	0.036		mg/Kg	1	11/25/2015 4:12:14 AM	B30448
Toluene	ND	0.036		mg/Kg	1	11/25/2015 4:12:14 AM	B30448
Ethylbenzene	ND	0.036		mg/Kg	1	11/25/2015 4:12:14 AM	B30448
Xylenes, Total	ND	0.072		mg/Kg	1	11/25/2015 4:12:14 AM	B30448
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	11/25/2015 4:12:14 AM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9-321' (SM/ML)
Project: Allsups 320 **Collection Date:** 11/20/2015 8:30:00 AM
Lab ID: 1511994-009 **Matrix:** MEOH (SOIL) **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/25/2015 4:36:25 AM	A30448
Surr: BFB	78.0	66.2-112		%REC	1	11/25/2015 4:36:25 AM	A30448
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.068		mg/Kg	1	11/25/2015 4:36:25 AM	B30448
Benzene	ND	0.034		mg/Kg	1	11/25/2015 4:36:25 AM	B30448
Toluene	ND	0.034		mg/Kg	1	11/25/2015 4:36:25 AM	B30448
Ethylbenzene	ND	0.034		mg/Kg	1	11/25/2015 4:36:25 AM	B30448
Xylenes, Total	ND	0.068		mg/Kg	1	11/25/2015 4:36:25 AM	B30448
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	11/25/2015 4:36:25 AM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** MeOH Blank
Project: Allsups 320 **Collection Date:**
Lab ID: 1511994-010 **Matrix:** MEOH BLAN **Received Date:** 11/23/2015 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/25/2015 5:00:50 AM	A30448
Surr: BFB	77.2	66.2-112		%REC	1	11/25/2015 5:00:50 AM	A30448
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/25/2015 5:00:50 AM	B30448
Benzene	ND	0.050		mg/Kg	1	11/25/2015 5:00:50 AM	B30448
Toluene	ND	0.050		mg/Kg	1	11/25/2015 5:00:50 AM	B30448
Ethylbenzene	ND	0.050		mg/Kg	1	11/25/2015 5:00:50 AM	B30448
Xylenes, Total	ND	0.10		mg/Kg	1	11/25/2015 5:00:50 AM	B30448
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	11/25/2015 5:00:50 AM	B30448

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511994

25-Nov-15

Client: Brown Environmental Inc.

Project: Allsups 320

Sample ID MB-22473	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 22473	RunNo: 30448							
Prep Date: 11/23/2015	Analysis Date: 11/24/2015	SeqNo: 929762	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.8	66.2	112			

Sample ID LCS-22473	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 22473	RunNo: 30448							
Prep Date: 11/23/2015	Analysis Date: 11/24/2015	SeqNo: 929763	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	79.6	122			
Surr: BFB	1000		1000		104	66.2	112			

Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: A30448	RunNo: 30448							
Prep Date:	Analysis Date: 11/24/2015	SeqNo: 929783	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	760		1000		76.4	66.2	112			

Sample ID 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: A30448	RunNo: 30448							
Prep Date:	Analysis Date: 11/24/2015	SeqNo: 929784	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.0	79.6	122			
Surr: BFB	1000		1000		100	66.2	112			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511994

25-Nov-15

Client: Brown Environmental Inc.

Project: Allsups 320

Sample ID MB-22473	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBS	Batch ID: 22473	RunNo: 30448
Prep Date: 11/23/2015	Analysis Date: 11/24/2015	SeqNo: 929804 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID LCS-22473	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSS	Batch ID: 22473	RunNo: 30448
Prep Date: 11/23/2015	Analysis Date: 11/24/2015	SeqNo: 929816 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.1	0.10	1.000	0	107	67.2	121			
Benzene	0.98	0.050	1.000	0	98.2	80	120			
Toluene	0.93	0.050	1.000	0	93.1	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	1.4		1.000		137	80	120			S

Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBS	Batch ID: B30448	RunNo: 30448
Prep Date:	Analysis Date: 11/24/2015	SeqNo: 929827 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.4	80	120			

Sample ID 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSS	Batch ID: B30448	RunNo: 30448
Prep Date:	Analysis Date: 11/24/2015	SeqNo: 929828 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.1	0.10	1.000	0	106	67.2	121			
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	0.94	0.050	1.000	0	93.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.5	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511994

25-Nov-15

Client: Brown Environmental Inc.

Project: Allsups 320

Sample ID	100NG BTEX LCS	SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS	Batch ID:	B30448		RunNo:	30448				
Prep Date:		Analysis Date:	11/24/2015		SeqNo:	929828	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	2.8	0.10	3.000	0	92.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	80	120			S

Sample ID	1511994-005AMS	SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BW-8-321'(SM/ML)	Batch ID:	B30448		RunNo:	30448				
Prep Date:		Analysis Date:	11/24/2015		SeqNo:	929830	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.73	0.070	0.7022	0	103	53.6	133			
Benzene	0.71	0.035	0.7022	0.01868	98.9	69.6	136			
Toluene	0.69	0.035	0.7022	0.03434	93.3	76.2	134			
Ethylbenzene	0.67	0.035	0.7022	0.004564	95.1	75.8	137			
Xylenes, Total	2.0	0.070	2.107	0.03820	91.8	78.9	133			
Surr: 4-Bromofluorobenzene	0.80		0.7022		115	80	120			

Sample ID	1511994-005AMSD	SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BW-8-321'(SM/ML)	Batch ID:	B30448		RunNo:	30448				
Prep Date:		Analysis Date:	11/24/2015		SeqNo:	929831	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.74	0.070	0.7022	0	106	53.6	133	1.98	20	
Benzene	0.72	0.035	0.7022	0.01868	99.5	69.6	136	0.579	20	
Toluene	0.71	0.035	0.7022	0.03434	96.7	76.2	134	3.39	20	
Ethylbenzene	0.72	0.035	0.7022	0.004564	102	75.8	137	6.68	20	
Xylenes, Total	2.1	0.070	2.107	0.03820	97.6	78.9	133	6.00	20	
Surr: 4-Bromofluorobenzene	0.92		0.7022		132	80	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Brown Env | Work Order Number: 1511994 | RcptNo: 1

Received by/date: 11/23/15

Logged By: Ashley Gallegos 11/23/2015 10:04:00 AM

Completed By: Ashley Gallegos 11/23/2015 10:15:32 AM

Reviewed By: 11/23/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good	Not Present			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Client: BROWN ENVIRONMENTAL INC.

Mailing Address: P.O. BOX 886
PLACITAS, NM 87043

Phone #: 505 934-7707

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: AUSWS 320

Project #: 1070

Project Manager: WILLIAM BROWN

Sampler: W. BROWN

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.9

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1511994	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)						Air Bubbles (Y or N)
1/15	11:40	SOIL	BW-8-81' (SM)	2x20 ml 1x4oz	METHANOL NONE	-001		X															
1/15	15:10	SOIL	BW-8-141' (SM)	" "	" "	-002		X															
12/15	14:00	SOIL	BW-8-241' (SM/ML)	" "	" "	-003		X															
12/15	16:48	SOIL	BW-8-281' (SM)	" "	" "	-004		X															
2/15	19:22	SOIL	BW-8-321' (SM/ML)	"	" "	-005		X															
9/15	8:10	SOIL	BW-9-141' (SM/ML)	"	"	-006		X															
9/15	13:30	SOIL	BW-9-241' (SM/ML)	"	"	-007		X	OK														
19/15	15:26	SOIL	BW-9-281' (SM/ML)	"	"	-0078		X															
20/15	8:30	SOIL	BW-9-321 (SM/ML)	"	"	-0089		X															
			MeOH Blank CS 11/23/15			-010	CS 11/23/15 per Bill																

Date: /15 Time: 10:04 Relinquished by: [signature]
Received by: [signature] Date 11/23/15 Time 1004

Date: Time: Relinquished by:
Received by: Date Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 11, 2015

Bill Brown
Brown Environmental Inc.
P. O. Box 886
Placitas, NM 87043
TEL: (505) 934-7707
FAX (505) 858-0707

RE: Allsups #320 OrderNo.: 1512277

Dear Bill Brown:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/7/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1512277**
Date Reported: **12/11/2015**

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1512277-001

Client Sample ID: BW-10-141' (SM/ML)
Collection Date: 12/2/2015 8:16:00 AM
Matrix: MEOH (SOIL)
Received Date: 12/7/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Surr: BFB	89.0	66.2-112		%REC	1	12/9/2015 9:11:33 PM	22678
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.083		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Benzene	ND	0.041		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Toluene	ND	0.041		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Ethylbenzene	ND	0.041		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Xylenes, Total	ND	0.083		mg/Kg	1	12/9/2015 9:11:33 PM	22678
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	12/9/2015 9:11:33 PM	22678

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-10-201' (SM)
Project: Allsups #320 **Collection Date:** 12/2/2015 10:50:00 AM
Lab ID: 1512277-002 **Matrix:** MEOH (SOIL) **Received Date:** 12/7/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Surr: BFB	88.7	66.2-112		%REC	1	12/9/2015 9:36:07 PM	22678
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.056		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Benzene	ND	0.028		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Toluene	ND	0.028		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Ethylbenzene	ND	0.028		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Xylenes, Total	ND	0.056		mg/Kg	1	12/9/2015 9:36:07 PM	22678
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	12/9/2015 9:36:07 PM	22678

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-10-261' SM
Project: Allsups #320 **Collection Date:** 12/2/2015 3:02:00 PM
Lab ID: 1512277-003 **Matrix:** MEOH (SOIL) **Received Date:** 12/7/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Surr: BFB	85.2	66.2-112		%REC	1	12/9/2015 10:00:35 PM	22678
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.059		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Benzene	ND	0.029		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Toluene	ND	0.029		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Ethylbenzene	ND	0.029		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Xylenes, Total	ND	0.059		mg/Kg	1	12/9/2015 10:00:35 PM	22678
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	12/9/2015 10:00:35 PM	22678

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1512277-004
Matrix: MEOH (SOIL)
Client Sample ID: BW-10-323' (SM/ML)
Collection Date: 12/3/2015 8:39:00 AM
Received Date: 12/7/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	2.7		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Surr: BFB	86.9	66.2-112		%REC	1	12/9/2015 10:25:14 PM	22678
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.053		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Benzene	ND	0.027		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Toluene	ND	0.027		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Ethylbenzene	ND	0.027		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Xylenes, Total	ND	0.053		mg/Kg	1	12/9/2015 10:25:14 PM	22678
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	12/9/2015 10:25:14 PM	22678

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** MeOH Blank
Project: Allsups #320 **Collection Date:**
Lab ID: 1512277-005 **Matrix:** MEOH BLAN **Received Date:** 12/7/2015 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	12/9/2015 10:49:54 PM	22678
Benzene	ND	0.050		mg/Kg	1	12/9/2015 10:49:54 PM	22678
Toluene	ND	0.050		mg/Kg	1	12/9/2015 10:49:54 PM	22678
Ethylbenzene	ND	0.050		mg/Kg	1	12/9/2015 10:49:54 PM	22678
Xylenes, Total	ND	0.10		mg/Kg	1	12/9/2015 10:49:54 PM	22678
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	12/9/2015 10:49:54 PM	22678

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512277

11-Dec-15

Client: Brown Environmental Inc.

Project: Allsups #320

Sample ID MB-22678	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 22678	RunNo: 30727
Prep Date: 12/8/2015	Analysis Date: 12/9/2015	SeqNo: 938888 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.4	66.2	112			

Sample ID LCS-22678	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 22678	RunNo: 30727
Prep Date: 12/8/2015	Analysis Date: 12/9/2015	SeqNo: 938889 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.6	79.6	122			
Surr: BFB	1100		1000		107	66.2	112			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512277

11-Dec-15

Client: Brown Environmental Inc.

Project: Allsups #320

Sample ID MB-22678	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBS	Batch ID: 22678	RunNo: 30727
Prep Date: 12/8/2015	Analysis Date: 12/9/2015	SeqNo: 938921 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID LCS-22678	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSS	Batch ID: 22678	RunNo: 30727
Prep Date: 12/8/2015	Analysis Date: 12/9/2015	SeqNo: 938922 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.91	0.10	1.000	0	90.5	67.2	121			
Benzene	0.88	0.050	1.000	0	87.8	80	120			
Toluene	0.88	0.050	1.000	0	88.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.1	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.2	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		134	80	120			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Brown Env | Work Order Number: 1512277 | RcptNo: 1

Received by/date: 12/07/15

Logged By: Lindsay Mangin 12/7/2015 12:15:00 PM

Completed By: Lindsay Mangin 12/7/2015 12:41:50 PM

Reviewed By: 12/07/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☑ NA ☐

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Not Present			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: BROWN ENVIRONMENTAL INC.

Mailing Address: P.O. BOX 886 FLORA VISTA, NM 87043

Phone #: 505 934-7707

email or Fax#:

QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☑ Standard ☐ Rush

Project Name: AUSUPS #320

Project #: 1070

Project Manager: WILLIAM BROWN

Sampler: W. BROWN

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.2

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1512744
12-1-15	8:16	SOIL	BW-10-147' (5m/mL)	1x4oz JAR-UNPRESERVED 2x20mL VIALS-METHANOL		-001
12-1-15	10:50	"	BW-10-201' (5m)	"	"	-002
12-1-15	15:02	"	BW-10-261' 5m	"	"	-003
12-3-15	8:39	"	BW-10-323' (5m/mL)	"	"	-004
			MeOH Blank			

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)						Air Bubbles (Y or N)
	X	X														
	X															
	X															
	X															
	X															

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/7/15	12:15			12/07/15	1215
Date:	Time:	Relinquished by:	Received by:	Date	Time

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 12, 2016

Bill Brown
Brown Environmental Inc.
P. O. Box 886
Placitas, NM 87043
TEL: (505) 934-7707
FAX

RE: Prince and Commerce OrderNo.: 1604058

Dear Bill Brown:

Hall Environmental Analysis Laboratory received 12 sample(s) on 4/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1604058
Date Reported: 4/12/2016

CLIENT: Brown Environmental Inc.
Project: Prince and Commerce
Lab ID: 1604058-001

Client Sample ID: BW-10d
Collection Date: 3/29/2016 3:16:00 PM
Matrix: AQUEOUS
Received Date: 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Toluene	280	10		µg/L	10	4/8/2016 2:33:15 PM	R33419
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 6:17:40 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 6:17:40 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 6:17:40 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-10d
Project: Prince and Commerce **Collection Date:** 3/29/2016 3:16:00 PM
Lab ID: 1604058-001 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 6:17:40 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 6:17:40 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 6:17:40 PM	R33378
Xylenes, Total	ND	1.5		µg/L	1	4/7/2016 6:17:40 PM	R33378
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	4/7/2016 6:17:40 PM	R33378
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/7/2016 6:17:40 PM	R33378
Surr: Dibromofluoromethane	106	70-130		%Rec	1	4/7/2016 6:17:40 PM	R33378
Surr: Toluene-d8	102	70-130		%Rec	1	4/7/2016 6:17:40 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-3d
Project: Prince and Commerce **Collection Date:** 3/29/2016 6:38:00 PM
Lab ID: 1604058-002 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Toluene	180	10		µg/L	10	4/8/2016 3:01:58 PM	R33419
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 6:46:28 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 6:46:28 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 6:46:28 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-3d
Project: Prince and Commerce **Collection Date:** 3/29/2016 6:38:00 PM
Lab ID: 1604058-002 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **AG**	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 6:46:28 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 6:46:28 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 6:46:28 PM	R33378
Xylenes, Total	2.2	1.5		µg/L	1	4/7/2016 6:46:28 PM	R33378
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	1	4/7/2016 6:46:28 PM	R33378
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	4/7/2016 6:46:28 PM	R33378
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/7/2016 6:46:28 PM	R33378
Surr: Toluene-d8	100	70-130		%Rec	1	4/7/2016 6:46:28 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-2d
Project: Prince and Commerce **Collection Date:** 3/30/2016 9:54:00 AM
Lab ID: 1604058-003 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Toluene	97	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 7:15:09 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 7:15:09 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 7:15:09 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Prince and Commerce
Lab ID: 1604058-003 **Matrix:** AQUEOUS

Client Sample ID: BW-2d
Collection Date: 3/30/2016 9:54:00 AM
Received Date: 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 7:15:09 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 7:15:09 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 7:15:09 PM	R33378
Xylenes, Total	ND	1.5		µg/L	1	4/7/2016 7:15:09 PM	R33378
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	4/7/2016 7:15:09 PM	R33378
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/7/2016 7:15:09 PM	R33378
Surr: Dibromofluoromethane	106	70-130		%Rec	1	4/7/2016 7:15:09 PM	R33378
Surr: Toluene-d8	101	70-130		%Rec	1	4/7/2016 7:15:09 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-6d
Project: Prince and Commerce **Collection Date:** 3/30/2016 1:14:00 PM
Lab ID: 1604058-004 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Toluene	130	10		µg/L	10	4/8/2016 3:30:37 PM	R33419
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 7:43:48 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 7:43:48 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 7:43:48 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-6d
Project: Prince and Commerce **Collection Date:** 3/30/2016 1:14:00 PM
Lab ID: 1604058-004 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 7:43:48 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 7:43:48 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 7:43:48 PM	R33378
Xylenes, Total	ND	1.5		µg/L	1	4/7/2016 7:43:48 PM	R33378
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	4/7/2016 7:43:48 PM	R33378
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/7/2016 7:43:48 PM	R33378
Surr: Dibromofluoromethane	112	70-130		%Rec	1	4/7/2016 7:43:48 PM	R33378
Surr: Toluene-d8	100	70-130		%Rec	1	4/7/2016 7:43:48 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-1d
Project: Prince and Commerce **Collection Date:** 3/30/2016 4:09:00 PM
Lab ID: 1604058-005 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	40	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Toluene	130	10		µg/L	10	4/8/2016 3:59:24 PM	R33419
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2-Dichloroethane (EDC)	1.3	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 8:12:42 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 8:12:42 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 8:12:42 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-1d
Project: Prince and Commerce **Collection Date:** 3/30/2016 4:09:00 PM
Lab ID: 1604058-005 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 8:12:42 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 8:12:42 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 8:12:42 PM	R33378
Xylenes, Total	ND	1.5		µg/L	1	4/7/2016 8:12:42 PM	R33378
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%Rec	1	4/7/2016 8:12:42 PM	R33378
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/7/2016 8:12:42 PM	R33378
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/7/2016 8:12:42 PM	R33378
Surr: Toluene-d8	101	70-130		%Rec	1	4/7/2016 8:12:42 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9d
Project: Prince and Commerce **Collection Date:** 3/30/2016 7:04:00 PM
Lab ID: 1604058-006 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Toluene	190	10		µg/L	10	4/8/2016 4:28:19 PM	R33419
Ethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 8:41:22 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 8:41:22 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 8:41:22 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-9d
Project: Prince and Commerce **Collection Date:** 3/30/2016 7:04:00 PM
Lab ID: 1604058-006 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 8:41:22 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 8:41:22 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 8:41:22 PM	R33378
Xylenes, Total	ND	1.5		µg/L	1	4/7/2016 8:41:22 PM	R33378
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	4/7/2016 8:41:22 PM	R33378
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/7/2016 8:41:22 PM	R33378
Surr: Dibromofluoromethane	112	70-130		%Rec	1	4/7/2016 8:41:22 PM	R33378
Surr: Toluene-d8	99.0	70-130		%Rec	1	4/7/2016 8:41:22 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-4d
Project: Prince and Commerce **Collection Date:** 3/30/2016 9:53:00 PM
Lab ID: 1604058-007 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **AG**	
Benzene	200	10		µg/L	10	4/8/2016 4:57:03 PM	R33419
Toluene	200	10		µg/L	10	4/8/2016 4:57:03 PM	R33419
Ethylbenzene	5.1	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2,4-Trimethylbenzene	3.2	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,3,5-Trimethylbenzene	1.2	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2-Dichloroethane (EDC)	6.9	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Naphthalene	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Acetone	ND	10		µg/L	1	4/7/2016 9:10:01 PM	R33378
Bromobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Bromoform	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Bromomethane	ND	3.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
2-Butanone	ND	10		µg/L	1	4/7/2016 9:10:01 PM	R33378
Carbon disulfide	ND	10		µg/L	1	4/7/2016 9:10:01 PM	R33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Chlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Chloroethane	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Chloroform	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Chloromethane	ND	3.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Dibromomethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-4d
Project: Prince and Commerce **Collection Date:** 3/30/2016 9:53:00 PM
Lab ID: 1604058-007 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
2-Hexanone	ND	10		µg/L	1	4/7/2016 9:10:01 PM	R33378
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2016 9:10:01 PM	R33378
Methylene Chloride	ND	3.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Styrene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Vinyl chloride	ND	1.0		µg/L	1	4/7/2016 9:10:01 PM	R33378
Xylenes, Total	33	1.5		µg/L	1	4/7/2016 9:10:01 PM	R33378
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%Rec	1	4/7/2016 9:10:01 PM	R33378
Surr: 4-Bromofluorobenzene	96.7	70-130		%Rec	1	4/7/2016 9:10:01 PM	R33378
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/7/2016 9:10:01 PM	R33378
Surr: Toluene-d8	104	70-130		%Rec	1	4/7/2016 9:10:01 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1604058
Date Reported: 4/12/2016

CLIENT: Brown Environmental Inc.
Project: Prince and Commerce
Lab ID: 1604058-008
Matrix: AQUEOUS
Client Sample ID: BW-5d
Collection Date: 3/31/2016 10:57:00 AM
Received Date: 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	5000	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Toluene	4200	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Ethylbenzene	500	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2,4-Trimethylbenzene	300	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,3,5-Trimethylbenzene	81	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2-Dichloroethane (EDC)	230	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2-Dibromoethane (EDB)	54	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Naphthalene	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378
1-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 9:38:52 PM	R33378
2-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 9:38:52 PM	R33378
Acetone	600	500		µg/L	50	4/7/2016 9:38:52 PM	R33378
Bromobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Bromodichloromethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Bromoform	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Bromomethane	ND	150		µg/L	50	4/7/2016 9:38:52 PM	R33378
2-Butanone	ND	500		µg/L	50	4/7/2016 9:38:52 PM	R33378
Carbon disulfide	ND	500		µg/L	50	4/7/2016 9:38:52 PM	R33378
Carbon Tetrachloride	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Chlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Chloroethane	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378
Chloroform	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Chloromethane	ND	150		µg/L	50	4/7/2016 9:38:52 PM	R33378
2-Chlorotoluene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
4-Chlorotoluene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
cis-1,2-DCE	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
cis-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378
Dibromochloromethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Dibromomethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,3-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,4-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Dichlorodifluoromethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1-Dichloroethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1-Dichloroethene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2-Dichloropropane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,3-Dichloropropane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
2,2-Dichloropropane	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-5d
Project: Prince and Commerce **Collection Date:** 3/31/2016 10:57:00 AM
Lab ID: 1604058-008 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **AG**	
1,1-Dichloropropene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Hexachlorobutadiene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
2-Hexanone	ND	500		µg/L	50	4/7/2016 9:38:52 PM	R33378
Isopropylbenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
4-Isopropyltoluene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
4-Methyl-2-pentanone	ND	500		µg/L	50	4/7/2016 9:38:52 PM	R33378
Methylene Chloride	ND	150		µg/L	50	4/7/2016 9:38:52 PM	R33378
n-Butylbenzene	ND	150		µg/L	50	4/7/2016 9:38:52 PM	R33378
n-Propylbenzene	54	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
sec-Butylbenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Styrene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
tert-Butylbenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378
Tetrachloroethene (PCE)	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
trans-1,2-DCE	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
trans-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2,3-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2,4-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1,1-Trichloroethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,1,2-Trichloroethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Trichloroethene (TCE)	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Trichlorofluoromethane	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
1,2,3-Trichloropropane	ND	100		µg/L	50	4/7/2016 9:38:52 PM	R33378
Vinyl chloride	ND	50		µg/L	50	4/7/2016 9:38:52 PM	R33378
Xylenes, Total	2000	75		µg/L	50	4/7/2016 9:38:52 PM	R33378
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%Rec	50	4/7/2016 9:38:52 PM	R33378
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	50	4/7/2016 9:38:52 PM	R33378
Surr: Dibromofluoromethane	104	70-130		%Rec	50	4/7/2016 9:38:52 PM	R33378
Surr: Toluene-d8	102	70-130		%Rec	50	4/7/2016 9:38:52 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8d
Project: Prince and Commerce **Collection Date:** 3/31/2016 3:29:00 PM
Lab ID: 1604058-009 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	3900	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Toluene	5400	500		µg/L	500	4/8/2016 5:25:43 PM	R33419
Ethylbenzene	440	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2,4-Trimethylbenzene	280	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,3,5-Trimethylbenzene	67	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2-Dichloroethane (EDC)	210	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2-Dibromoethane (EDB)	95	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Naphthalene	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378
1-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 10:07:30 PM	R33378
2-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 10:07:30 PM	R33378
Acetone	1200	500		µg/L	50	4/7/2016 10:07:30 PM	R33378
Bromobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Bromodichloromethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Bromoform	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Bromomethane	ND	150		µg/L	50	4/7/2016 10:07:30 PM	R33378
2-Butanone	740	500		µg/L	50	4/7/2016 10:07:30 PM	R33378
Carbon disulfide	ND	500		µg/L	50	4/7/2016 10:07:30 PM	R33378
Carbon Tetrachloride	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Chlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Chloroethane	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378
Chloroform	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Chloromethane	ND	150		µg/L	50	4/7/2016 10:07:30 PM	R33378
2-Chlorotoluene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
4-Chlorotoluene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
cis-1,2-DCE	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
cis-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378
Dibromochloromethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Dibromomethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,3-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,4-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Dichlorodifluoromethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1-Dichloroethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1-Dichloroethene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2-Dichloropropane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,3-Dichloropropane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
2,2-Dichloropropane	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-8d
Project: Prince and Commerce **Collection Date:** 3/31/2016 3:29:00 PM
Lab ID: 1604058-009 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Hexachlorobutadiene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
2-Hexanone	ND	500		µg/L	50	4/7/2016 10:07:30 PM	R33378
Isopropylbenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
4-Isopropyltoluene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
4-Methyl-2-pentanone	ND	500		µg/L	50	4/7/2016 10:07:30 PM	R33378
Methylene Chloride	ND	150		µg/L	50	4/7/2016 10:07:30 PM	R33378
n-Butylbenzene	ND	150		µg/L	50	4/7/2016 10:07:30 PM	R33378
n-Propylbenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
sec-Butylbenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Styrene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
tert-Butylbenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378
Tetrachloroethene (PCE)	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
trans-1,2-DCE	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
trans-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2,3-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2,4-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1,1-Trichloroethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,1,2-Trichloroethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Trichloroethene (TCE)	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Trichlorofluoromethane	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
1,2,3-Trichloropropane	ND	100		µg/L	50	4/7/2016 10:07:30 PM	R33378
Vinyl chloride	ND	50		µg/L	50	4/7/2016 10:07:30 PM	R33378
Xylenes, Total	2400	75		µg/L	50	4/7/2016 10:07:30 PM	R33378
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	50	4/7/2016 10:07:30 PM	R33378
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	50	4/7/2016 10:07:30 PM	R33378
Surr: Dibromofluoromethane	110	70-130		%Rec	50	4/7/2016 10:07:30 PM	R33378
Surr: Toluene-d8	100	70-130		%Rec	50	4/7/2016 10:07:30 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-11d
Project: Prince and Commerce **Collection Date:** 3/31/2016 3:48:00 PM
Lab ID: 1604058-010 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	4300	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Toluene	5900	500		µg/L	500	4/8/2016 5:54:28 PM	R33419
Ethylbenzene	500	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2,4-Trimethylbenzene	310	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,3,5-Trimethylbenzene	74	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2-Dichloroethane (EDC)	230	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2-Dibromoethane (EDB)	110	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Naphthalene	100	100		µg/L	50	4/7/2016 10:36:05 PM	R33378
1-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 10:36:05 PM	R33378
2-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 10:36:05 PM	R33378
Acetone	1300	500		µg/L	50	4/7/2016 10:36:05 PM	R33378
Bromobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Bromodichloromethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Bromoform	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Bromomethane	ND	150		µg/L	50	4/7/2016 10:36:05 PM	R33378
2-Butanone	750	500		µg/L	50	4/7/2016 10:36:05 PM	R33378
Carbon disulfide	ND	500		µg/L	50	4/7/2016 10:36:05 PM	R33378
Carbon Tetrachloride	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Chlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Chloroethane	ND	100		µg/L	50	4/7/2016 10:36:05 PM	R33378
Chloroform	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Chloromethane	ND	150		µg/L	50	4/7/2016 10:36:05 PM	R33378
2-Chlorotoluene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
4-Chlorotoluene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
cis-1,2-DCE	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
cis-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	4/7/2016 10:36:05 PM	R33378
Dibromochloromethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Dibromomethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,3-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,4-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Dichlorodifluoromethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1-Dichloroethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1-Dichloroethene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2-Dichloropropane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,3-Dichloropropane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
2,2-Dichloropropane	ND	100		µg/L	50	4/7/2016 10:36:05 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-11d
Project: Prince and Commerce **Collection Date:** 3/31/2016 3:48:00 PM
Lab ID: 1604058-010 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Hexachlorobutadiene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
2-Hexanone	ND	500		µg/L	50	4/7/2016 10:36:05 PM	R33378
Isopropylbenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
4-Isopropyltoluene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
4-Methyl-2-pentanone	ND	500		µg/L	50	4/7/2016 10:36:05 PM	R33378
Methylene Chloride	ND	150		µg/L	50	4/7/2016 10:36:05 PM	R33378
n-Butylbenzene	ND	150		µg/L	50	4/7/2016 10:36:05 PM	R33378
n-Propylbenzene	52	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
sec-Butylbenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Styrene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
tert-Butylbenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	4/7/2016 10:36:05 PM	R33378
Tetrachloroethene (PCE)	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
trans-1,2-DCE	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
trans-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2,3-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2,4-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1,1-Trichloroethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,1,2-Trichloroethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Trichloroethene (TCE)	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Trichlorofluoromethane	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
1,2,3-Trichloropropane	ND	100		µg/L	50	4/7/2016 10:36:05 PM	R33378
Vinyl chloride	ND	50		µg/L	50	4/7/2016 10:36:05 PM	R33378
Xylenes, Total	2700	75		µg/L	50	4/7/2016 10:36:05 PM	R33378
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%Rec	50	4/7/2016 10:36:05 PM	R33378
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	50	4/7/2016 10:36:05 PM	R33378
Surr: Dibromofluoromethane	107	70-130		%Rec	50	4/7/2016 10:36:05 PM	R33378
Surr: Toluene-d8	104	70-130		%Rec	50	4/7/2016 10:36:05 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-7d
Project: Prince and Commerce **Collection Date:** 3/31/2016 4:23:00 PM
Lab ID: 1604058-011 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	8800	500		µg/L	500	4/8/2016 6:23:18 PM	R33419
Toluene	2900	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Ethylbenzene	650	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2,4-Trimethylbenzene	370	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,3,5-Trimethylbenzene	94	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2-Dichloroethane (EDC)	580	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Naphthalene	120	100		µg/L	50	4/7/2016 11:04:53 PM	R33378
1-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 11:04:53 PM	R33378
2-Methylnaphthalene	ND	200		µg/L	50	4/7/2016 11:04:53 PM	R33378
Acetone	560	500		µg/L	50	4/7/2016 11:04:53 PM	R33378
Bromobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Bromodichloromethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Bromoform	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Bromomethane	ND	150		µg/L	50	4/7/2016 11:04:53 PM	R33378
2-Butanone	ND	500		µg/L	50	4/7/2016 11:04:53 PM	R33378
Carbon disulfide	ND	500		µg/L	50	4/7/2016 11:04:53 PM	R33378
Carbon Tetrachloride	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Chlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Chloroethane	ND	100		µg/L	50	4/7/2016 11:04:53 PM	R33378
Chloroform	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Chloromethane	ND	150		µg/L	50	4/7/2016 11:04:53 PM	R33378
2-Chlorotoluene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
4-Chlorotoluene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
cis-1,2-DCE	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
cis-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	4/7/2016 11:04:53 PM	R33378
Dibromochloromethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Dibromomethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,3-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,4-Dichlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Dichlorodifluoromethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1-Dichloroethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1-Dichloroethene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2-Dichloropropane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,3-Dichloropropane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
2,2-Dichloropropane	ND	100		µg/L	50	4/7/2016 11:04:53 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** BW-7d
Project: Prince and Commerce **Collection Date:** 3/31/2016 4:23:00 PM
Lab ID: 1604058-011 **Matrix:** AQUEOUS **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
1,1-Dichloropropene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Hexachlorobutadiene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
2-Hexanone	ND	500		µg/L	50	4/7/2016 11:04:53 PM	R33378
Isopropylbenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
4-Isopropyltoluene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
4-Methyl-2-pentanone	ND	500		µg/L	50	4/7/2016 11:04:53 PM	R33378
Methylene Chloride	ND	150		µg/L	50	4/7/2016 11:04:53 PM	R33378
n-Butylbenzene	ND	150		µg/L	50	4/7/2016 11:04:53 PM	R33378
n-Propylbenzene	63	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
sec-Butylbenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Styrene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
tert-Butylbenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	4/7/2016 11:04:53 PM	R33378
Tetrachloroethene (PCE)	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
trans-1,2-DCE	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
trans-1,3-Dichloropropene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2,3-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2,4-Trichlorobenzene	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1,1-Trichloroethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,1,2-Trichloroethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Trichloroethene (TCE)	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Trichlorofluoromethane	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
1,2,3-Trichloropropane	ND	100		µg/L	50	4/7/2016 11:04:53 PM	R33378
Vinyl chloride	ND	50		µg/L	50	4/7/2016 11:04:53 PM	R33378
Xylenes, Total	2100	75		µg/L	50	4/7/2016 11:04:53 PM	R33378
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	50	4/7/2016 11:04:53 PM	R33378
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	50	4/7/2016 11:04:53 PM	R33378
Surr: Dibromofluoromethane	102	70-130		%Rec	50	4/7/2016 11:04:53 PM	R33378
Surr: Toluene-d8	95.0	70-130		%Rec	50	4/7/2016 11:04:53 PM	R33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** TRip Blank
Project: Prince and Commerce **Collection Date:**
Lab ID: 1604058-012 **Matrix:** TRIP BLANK **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: AG	
Benzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Toluene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Ethylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Naphthalene	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1-Methylnaphthalene	ND	4.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
2-Methylnaphthalene	ND	4.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Acetone	ND	10		µg/L	1	4/8/2016 1:28:27 AM	A33378
Bromobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Bromodichloromethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Bromoform	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Bromomethane	ND	3.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
2-Butanone	ND	10		µg/L	1	4/8/2016 1:28:27 AM	A33378
Carbon disulfide	ND	10		µg/L	1	4/8/2016 1:28:27 AM	A33378
Carbon Tetrachloride	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Chlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Chloroethane	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Chloroform	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Chloromethane	ND	3.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
2-Chlorotoluene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
4-Chlorotoluene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
cis-1,2-DCE	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Dibromochloromethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Dibromomethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1-Dichloroethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1-Dichloroethene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2-Dichloropropane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,3-Dichloropropane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
2,2-Dichloropropane	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc. **Client Sample ID:** TRip Blank
Project: Prince and Commerce **Collection Date:**
Lab ID: 1604058-012 **Matrix:** TRIP BLANK **Received Date:** 4/1/2016 4:47:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **AG**	
1,1-Dichloropropene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Hexachlorobutadiene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
2-Hexanone	ND	10		µg/L	1	4/8/2016 1:28:27 AM	A33378
Isopropylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
4-Isopropyltoluene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
4-Methyl-2-pentanone	ND	10		µg/L	1	4/8/2016 1:28:27 AM	A33378
Methylene Chloride	ND	3.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
n-Butylbenzene	ND	3.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
n-Propylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
sec-Butylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Styrene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
tert-Butylbenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
trans-1,2-DCE	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Trichlorofluoromethane	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Vinyl chloride	ND	1.0		µg/L	1	4/8/2016 1:28:27 AM	A33378
Xylenes, Total	ND	1.5		µg/L	1	4/8/2016 1:28:27 AM	A33378
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/8/2016 1:28:27 AM	A33378
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	4/8/2016 1:28:27 AM	A33378
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/8/2016 1:28:27 AM	A33378
Surr: Toluene-d8	103	70-130		%Rec	1	4/8/2016 1:28:27 AM	A33378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.

Project: Prince and Commerce

Sample ID 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/7/2016	SeqNo: 1026175	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	97.6	70	130			
Chlorobenzene	20	1.0	20.00	0	99.0	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID 100ng lcs2	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: A33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1026176	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/7/2016	SeqNo: 1026177	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.
Project: Prince and Commerce

Sample ID rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/7/2016	SeqNo: 1026177	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	1.1	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.

Project: Prince and Commerce

Sample ID rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/7/2016	SeqNo: 1026177	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID rb3	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: A33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1026178	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.
Project: Prince and Commerce

Sample ID rb3	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: A33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1026178	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.

Project: Prince and Commerce

Sample ID rb3	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: A33378	RunNo: 33378							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1026178	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	9.0		10.00		90.3	70	130			

Sample ID 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R33419	RunNo: 33419							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1027647	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		115	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID vsb dell	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R33419	RunNo: 33419							
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1027648	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604058

12-Apr-16

Client: Brown Environmental Inc.

Project: Prince and Commerce

Sample ID vsb deli	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R33419	RunNo: 33419						
Prep Date:	Analysis Date: 4/8/2016	SeqNo: 1027648	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Brown Env | Work Order Number: 1604058 | RcptNo: 1

Received by/date: 04/01/16

Logged By: Lindsay Mangin | 4/1/2016 4:47:00 PM

Completed By: Lindsay Mangin | 4/4/2016 10:14:31 AM

Reviewed By: TO 04/04/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

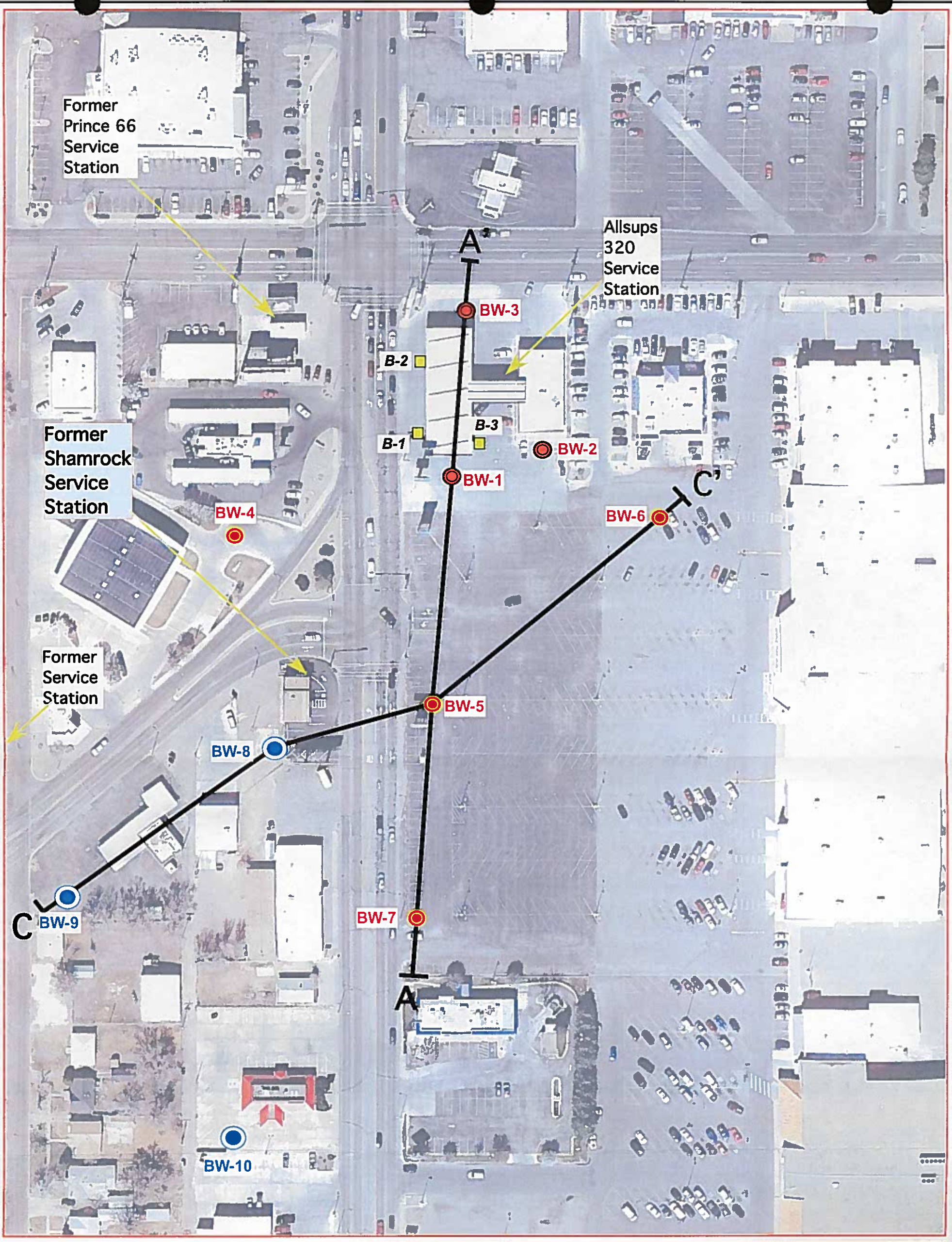
Client: BLAGG ENV. FARMINGTON	Turn-Around Time: ☒ Standard ☐ Rush
Mailing Address: P.O. BOX 886 DURANGO, NM 87043	Project Name: PRICE 3 COMMERCE
Phone #: 505-934-7707	Project #: 1070
Email or Fax#:	Project Manager: WILLIAM BROWN
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: W. BROWN
Accreditation: NELAP ☐ Other	On Ice: ☒ Yes ☐ No
EDD (Type)	Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1604058	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
3/31/16	15:16	H2O	BW-10d	3 VOAs	HgCl2	-001										X		
3/31/16	16:38	"	BW-3d	3 VOAs	HgCl2	-002												
3/31/16	9:54	"	BW-2d	3 VOAs	HgCl2	-003												
3/31/16	13:14	"	BW-6d	3 VOAs	HgCl2	-004												
3/31/16	16:09	"	BW-1d	3 VOAs	HgCl2	-005												
3/31/16	19:00	"	BW-9d	2 VOAs	HgCl2	-006												
3/31/16	21:53	"	BW-4d	3 VOAs	HgCl2	-007												
4/1/16	10:57	"	BW-5d	3 VOAs	HgCl2	-008												
3/31/16	15:29	"	BW-8d	3 VOAs	HgCl2	-009												
3/31/16	15:48	"	BW-11d	3 VOAs	HgCl2	-010												
3/31/16	16:23	"	BW-7d	3 VOAs	HgCl2	-011												
			TRIP BLANK	2 VOAs	HgCl2	-012												

Date	Time	Relinquished by:	Received by:	Date	Time
4/1/16	16:47			04/01/16	1647
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



EXPLANATION

- BW-6 — Single Completion Monitor Well Location
- BW-3 — Nested Monitor Well Location
- BW-10 — NEWLY INSTALLED MULTIPLE COMPLETION WELL
- Soil Boring Location

0 — 100 ft
Scale

NORTH

A — A'
Cross Section Location

SITE BASE MAP WITH CROSS SECTION LOCATIONS

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 886 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 2

SOUTH

A

Former Shamrock
Y Service Station
(120 feet west)

Allsup
Forme

BW-7d

BW-5d

BW-1
(s,I,d)

Depth in ft

0'

30'

60'

90'

120'

150'

180'

210'

240'

270'

300'

330'

360'

LITHOLOGIC
UNIT I

LITHOLOGIC
UNIT II

LITHOLOGIC
UNIT III

LITHOLOGIC
UNIT IV

B=<0.030
X=<0.060
M=<0.060
TPHg=<3.0

≥0.1 ppm/v

≥4.5 ppm/v

B=<0.028
X=<0.055
M=<0.055
TPHg=<2.8

≥35.1 ppm/v

B=0.037
X=<0.055
M=<0.055
TPHg=<2.7

≥53 ppm/v

82,500 ug/l
well vapors

≥1,100 ppm/v

B=0.13
X=0.082
M=<0.057
TPHg=<2.8

>10,000 ug/l TPH

>50,000 ug/l TPH

>100,000 ug/l TPH

191,000 ug/l
well vapors

TD = 354'
3/14

B=<0.025
X=<0.070
M=<0.070
TPHg=<3.5

≥0.3 ppm/v

≥1.0 ppm/v

155 ug/l
well vapors

≥2.0 ppm/v

B=<0.024
X=<0.048
M=<0.048
TPHg=<2.4

≥3.8 ppm/v

B=<0.017
X=<0.048
M=0.050
TPHg=<4.08

≥362 ppm/v

B=<0.33
X=5.8
M=<0.65
TPHg=121

≥3,300 ppm/v

8,260 ug/l
well vapors

23,400 ug/l
well vapors

TD = 358'
2/14

B=<0.05
X=<0.10
M=0.21
TPHg=<5

≥6.1

≥8.2

B=<0.05
X=<0.10
M=<0.10
TPHg=<5

≥29.6

≥1,182

B=<0.05
X=2.0
M=<0.10
TPHg=26

≥51

≥21.5

B=<0.05
X=<0.10
M=<0.10
TPHg=<5

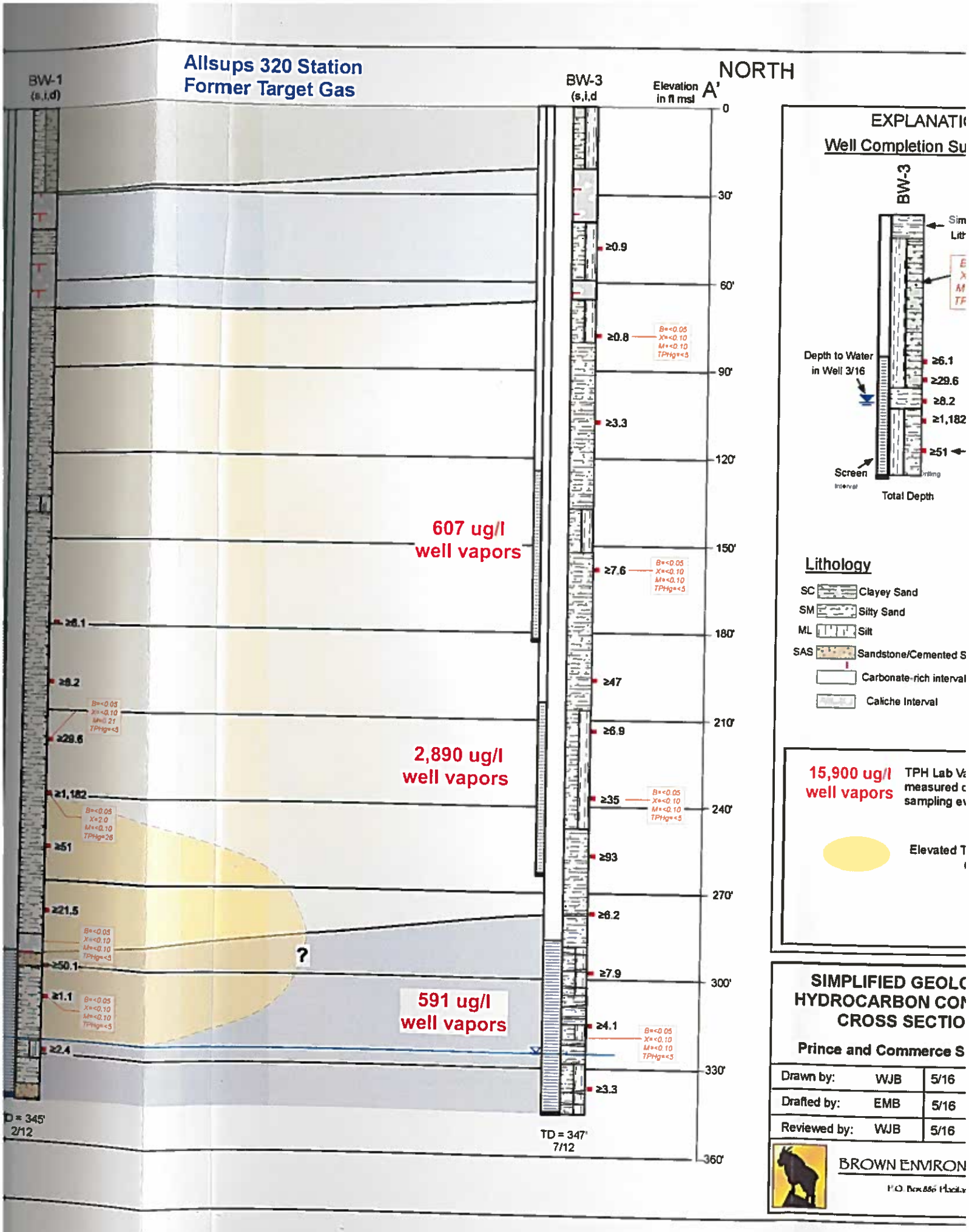
≥50.1

≥1.1

B=<0.05
X=<0.10
M=<0.10
TPHg=<5

≥2.4

TD = 345'
2/12


Allsups 320 Station
Former Target Gas
NORTH
A'
BW-1
(s,i,d)
BW-3
(s,i,d
Elevation
in ft msl
0
30'
60'
90'
120'
150'
180'
210'
240'
270'
300'
330'
360'
≥0.9
≥0.8
B=<0.05
X=<0.10
M=<0.10
TPHg=<5
≥3.3
≥7.6
≥47
≥6.9
≥35
≥93
≥6.2
≥7.9
≥4.1
≥3.3
≥6.1
≥8.2
B=<0.05
X=<0.10
M=0.21
TPHg=<5
≥29.6
≥1,182
B=<0.05
X=2.0
M=<0.10
TPHg=26
≥51
≥21.5
B=<0.05
X=<0.10
M=<0.10
TPHg=<5
≥50.1
≥1.1
B=<0.05
X=<0.10
M=<0.10
TPHg=<5
≥2.4
607 ug/l
well vapors
2,890 ug/l
well vapors
591 ug/l
well vapors
?
TD = 345'
2/12
TD = 347'
7/12
EXPLANATI
Well Completion Su
BW-3
Sim
Lith
Depth to Water
in Well 3/16
≥6.1
≥29.6
≥8.2
≥1,182
≥51
Screen
Interval
Total Depth
Lithology
SC Clayey Sand
SM Silty Sand
ML Silt
SAS Sandstone/Cemented S
Carbonate-rich interval
Caliche Interval
15,900 ug/l
well vapors
TPH Lab Va
measured
sampling ev
Elevated T
SIMPLIFIED GEOLO
HYDROCARBON CON
CROSS SECTIO
Prince and Commerce S
Drawn by: WJB 5/16
Drafted by: EMB 5/16
Reviewed by: WJB 5/16
BROWN ENVIRON
P.O. Box 886 Hobbs

SW

C

Depth in ft

BW-9 (s,i,d)

BW-8 (s,i,d)

Former Shamrock Y Service Station (80 feet northeast)

0'

30'

60'

90'

120'

150'

180'

240'

270'

300'

330'

360'

LITHOLOGIC UNIT I

LITHOLOGIC UNIT II

LITHOLOGIC UNIT III

LITHOLOGIC UNIT IV

B=<0.042 X=<0.084 M=<0.084 TPHgx=<4.2

≥0.1 ppm/v

≥0.0 ppm/v

B=<0.033 X=<0.065 M=<0.065 TPHgx=<3.3

≥0.9 ppm/v

B=<0.036 X=<0.072 M=<0.072 TPHgx=<3.6

≥0.9 ppm/v

B=<0.034 X=<0.068 M=<0.068 TPHgx=<3.4

≥35 ppm/v

TD = 360'
11/15

485 ug/l well vapors

591 ug/l well vapors

150 ug/l well vapors

5,100 ug/l well vapors

53,300 ug/l 69,500 ug/l well vapors

85,000 ug/l well vapors

?

B=<0.033 X=<0.066 M=<0.066 TPHgx=<3.3

≥1.8 ppm/v

B=<0.032 X=<0.064 M=<0.064 TPHgx=<3.2

≥1.9 ppm/v

B=<0.032 X=0.14 M=<0.060 TPHgx=<3.2

≥129 ppm/v

B=<0.030 X=<0.061 M=<0.061 TPHgx=<3.0

≥36.1 ppm/v

B=<0.035 X=<0.070 M=<0.070 TPHgx=<3.5

≥471 ppm/v

TD = 356'
11/15

>10,000 ug/l TPH

>50,000 ug/l TPH

>100,000 ug/l TPH

191,000 ug/l well vapors

BW-5d

Cross Section A-A'
Hinge point

BW-6d

NORTHEAST

C'

Elevation in ft msl

0
30'
60'
90'
120'
150'
180'
210'
240'
270'
300'
330'
360'

B=<0.035
X=<0.070
M=0.070
TPHg=<3.5
≥0.3 ppm/v

≥1.0 ppm/v

B=<0.024
X=<0.048
M=<0.048
TPHg=<2.4
≥2.0 ppm/v

B=<0.017
X=<0.046
M=0.050
TPHg=<4.06
≥3.8 ppm/v

B=<0.33
X=5.8
M=<0.65
TPHg=121
≥362 ppm/v

≥3,300 ppm/v

?

1,000 ug/l well vapors

TD = 358'
2/14

B=<0.034
X=<0.069
M=<0.069
TPHg=<3.4
≥0.1 ppm/v

≥0.6 ppm/v

≥0.2 ppm/v

B=<0.033
X=<0.067
M=<0.067
TPHg=<3.3
≥8.7 ppm/v

B=<0.036
X=<0.071
M=<0.071
TPHg=<3.6
≥0.4 ppm/v

B=<0.029
X=<0.058
M=<0.058
TPHg=<2.9
≥0.9 ppm/v

1,910 ug/l well vapors

TD = 355'
3/14

EXPLANATION
Well Completion Summary

BW-3

Simplified Lithology

B=0.61
X=0.40
M=<0.10
TPHg=<5

Soil Lab Results
B=Benzene
X=Total Xylenes
M=MTBE
TPH=Total Petroleum Hydrocarbons (gas range)

Depth to Water in Well 3/16

≥6.1
≥29.6
≥8.2
≥1,182
≥51 — PID Headspace Reading (in ppm/v)

Screen Interval

Date of Drilling

Total Depth

Lithology

SC Clayey Sand
SM Silty Sand
ML Silt
SAS Sandstone/Cemented Sand

Carbonate-rich interval

Caliche Interval

30'
Scale
No Vertical Exaggeration
0
30'

15,900 ug/l well vapors — TPH Lab Vapor concentrations measured during 1/14/16 sampling event (in ug/l)

Elevated TPH vapor level (ug/l)

SIMPLIFIED GEOLOGIC AND HYDROCARBON CONTAMINANT CROSS SECTION C-C'

Allsups Store #320, Clovis, NM

Drawn by:	WJB	5/16	Client: NMED
Drafted by:	EMB	5/16	Job # 1070
Reviewed by:	WJB	5/16	Figure 3B

BROWN ENVIRONMENTAL, INC
P.O. Box 886 Hobbs, NM 87043

Former Prince 66 Service Station

Allsups 320 Service Station

Former Shamrock Service Station

Former Service Station

BW-1 3,952.51'

BW-2 3,952.86'

BW-3 3,953.27'

BW-4 3,952.93'

BW-5 3,952.19'

BW-6 3,952.64'

BW-7 3,951.54'

BW-8 3,952.17'

BW-9 3,952.14'

BW-10 3,951.24'

3953.00'

3952.50'

3952.00'

3951.50'

EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

Approximate Direction of Groundwater Flow

Groundwater Elevation in Feet Above Mean Sea level

Equipotential Line

3957.20'

6,469.74'

0 100 ft

Scale

NORTH

GROUNDWATER POTENTIOMETRIC SURFACE MAP 3/29/16

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 886 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 4

Former Prince 66 Service Station

SHALLOW	INTERMED.	DEEP
TPH=607	TPH=2,890	TPH=591
B = 15	B = 79	B = 10
T = 4.7	T = 94	T = 11
E = <1.0	E = 10	E = 1.4
X = 6.9	X = 62	X = 12
M = <2.5	M = <2.5	M = <2.5

Allsups 320 Service Station

BW-3

SHALLOW	INTERMED.	DEEP
TPH=29.1	TPH=255	TPH=231
B = 0.17	B = 3.4	B = <0.10
T = 0.21	T = 2.0	T = <0.10
E = <0.10	E = <0.20	E = <0.10
X = 0.37	X = 3.9	X = <0.20
M = <0.25	M = 3.3	M = <0.25

Former Shamrock Service Station

DEEP
TPH=23,600
B = 240
T = 160
E = 12
X = 51
M = <25

BW-2

BW-1

SHALLOW	INTERMED.	DEEP
TPH=155	TPH=8,260	TPH=23,400
B = 0.64	B = 30	B = 180
T = 0.44	T = 2.9	T = <5
E = <0.10	E = <2.5	E = <5
X = 0.60	X = 14	X = <10
M = 2.0	M = <6.2	M = <12

BW-4

BW-6

DEEP
TPH=1910
B = 8.6
T = 1.9
E = <0.50
X = <1.0
M = <1.2

?

>10,000 ug/l TPH

Former Service Station

?

?

>50,000 ug/l TPH

BW-5

DEEP
TPH=191,000
B = 2,400
T = 2,100
E = 120
X = 460
M = <62

SHALLOW	INTERMED.	DEEP
TPH=5,100	TPH=69,500	TPH=85,000
B = 72	B = 610	B = 830
T = 140	T = 930	T = 1,100
E = 12	E = 83	E = 78
X = 52	X = 370	X = 330
M = <5	M = <120	M = <62

BW-8

>100,000 ug/l TPH

?

?

BW-9

BW-7

DEEP
TPH=82,500
B = 840
T = 1,100
E = 77
X = 410
M = <50

SHALLOW	INTERMED.	DEEP
TPH=485	TPH=591	TPH=150
B = 7.7	B = 7.4	B = 1.6
T = 1.9	T = 2.1	T = 0.40
E = <0.20	E = <0.50	E = <0.10
X = 0.70	X = <1.0	X = 0.23
M = <0.50	M = <1.2	M = <0.25

?

?

SHALLOW	INTERMED.	DEEP
TPH=6.22	TPH=8.36	TPH=<5.0
B = <0.10	B = <0.10	B = <0.10
T = 0.24	T = 0.20	T = <0.10
E = <0.10	E = <0.10	E = <0.10
X = <0.20	X = <0.20	X = <0.20
M = <0.25	M = 0.25	M = <0.25

BW-10

EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

10,000 Total Petroleum Hydrocarbon (TPH) Vapor Isoncontour (in micrograms/liter (ug/l)

Laboratory Vapor Results (in micrograms/liter (ug/l)

DEEP	WELL SCREEN LOCATION
TPH=85,000	TPH=total petroleum hydrocarbons
B = 830	B = benzene
T = 1,100	T = toluene
E = 76	E = ethyl benzene
X = 330	X = total xylenes
M = <62	M = MTBE

0 100 ft

Scale

NORTH

DEEP ZONE TPH VAPOR CONCENTRATIONS IN MONITOR WELLS 1/14/16

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 886 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 5

Former Prince 66 Service Station

3/16
B =40
T = 130
E = <1.0
X = <1.5
TB = <2.0
EC = 1.3
EB =<1.0
M =<1.0
N = <10
A = <10

3/16
B =<1.0
T = 180
E = <1.0
X = 2.2
TB = <2.0
EC = <1.0
EB= <1.0
M =<1.0
N = <10
A = <10

Allsups 320 Service Station

3/16
B =<1.0
T = 97
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

3/16
B =<1.0
T = 130
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

BW-3

BW-2

BW-1

BW-4

BW-6

3/16
B =200
T = 200
E = 5.1
X = 33
TB = 4.4
EC = 6.9
EB= <1.0
M =<1.0
N = <10
A = <10

Former Shamrock Service Station

10 ppb Benzene

100 ppb Benzene

1,000 ppb Benzene

Former Service Station

BW-5

3/16
B =5,000
T = 4,200
E = 500
X = 2,000
TB = 381
EC = 230
EB =54
M =<50
N = <500
A = 600

BW-8

3/16
B =3,900/4,300
T = 5,400/5,900
E = 440/500
X = 2,400/2,700
TB = 347/384
EC = 210/230
EB =95/110
M =<50/<50
N = <500/100
A = 1,200/1,300

BW-7

3/16
B =8,800
T = 2,900
E = 650
X = 2,100
TB = 464
EC = 580
EB =<50
M =<50
N = 120
A = 560

BW-9

3/16
B =<1.0
T = 190
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

BW-10

3/16
B =<1.0
T = 280
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

10 ppb Benzene Isoncontour (in parts per billion)

0 100 ft
Scale

NORTH

GROUNDWATER QUALITY DATA

3/16	3/16= date of sampling
B = 240	B = benzene
T = 61	T = toluene
E = 4.5	E = ethyl benzene
X = 20	X = total xylenes
TB = 6.3	TB = tri-methyl benzenes
EC = 3.5	EC = 1,2 dichloroethane
EB = <1.0	EB = 1,2 dibromoethane
M = 1.6	M = methyl tertiary butyl ether
N = <10	N= naphthalenes +mono methyl naphthalenes
A = <10	A=acetone

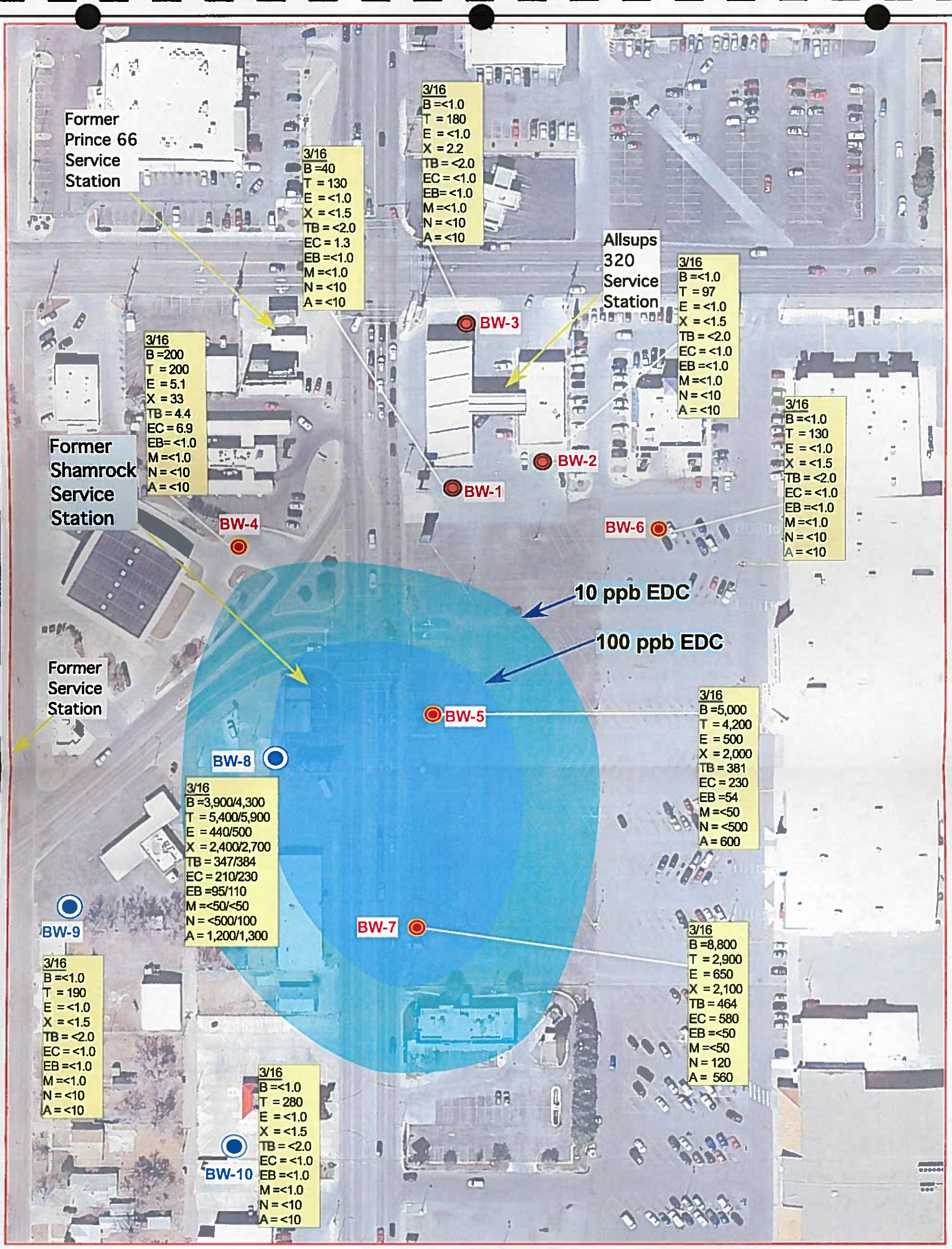
all concentrations in parts per billion (ppb)
NS = Not Sampled

BENZENE GROUNDWATER MAP
3/16 SAMPLING EVENT

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 836 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 6



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

10 ppb EDC Isoncontour (in parts per billion)

0 100 ft Scale

NORTH

GROUNDWATER QUALITY DATA

3/16	3/16= date of sampling
B = 240	B = benzene
T = 61	T = toluene
E = 4.5	E = ethyl benzene
X = 20	X = total xylenes
TB = 6.3	TB = tri-methyl benzenes
EC = 3.5	EC = 1,2 dichloroethane
EB = <1.0	EB = 1,2 dibromoethane
M = 1.6	M = methyl tertiary butyl ether
N = <10	N= naphthalenes +mono methyl naphthalenes
A = <10	A=acetone

all concentrations in parts per billion (ppb)
NS = Not Sampled

1,2 DICHLOROETHANE (EDC) GROUNDWATER QUALITY MAP 3/16 SAMPLING EVENT

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 886 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 7

Former Prince 66 Service Station

3/16
B =40
T = 130
E = <1.0
X = <1.5
TB = <2.0
EC = 1.3
EB =<1.0
M =<1.0
N = <10
A = <10

3/16
B =<1.0
T = 180
E = <1.0
X = 2.2
TB = <2.0
EC = <1.0
EB= <1.0
M =<1.0
N = <10
A = <10

Allsups 320 Service Station

3/16
B =<1.0
T = 97
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

3/16
B =<1.0
T = 130
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

Former Shamrock Service Station

3/16
B =200
T = 200
E = 5.1
X = 33
TB = 4.4
EC = 6.9
EB= <1.0
M =<1.0
N = <10
A = <10

BW-1
BW-2
BW-3
BW-4
BW-5
BW-6
BW-7
BW-8
BW-9
BW-10

30 ppb NAPHTHALENES

?

Former Service Station

3/16
B =5,000
T = 4,200
E = 500
X = 2,000
TB = 381
EC = 230
EB =54
M =<50
N = <500
A = 600

3/16
B =3,900/4,300
T = 5,400/5,900
E = 440/500
X = 2,400/2,700
TB = 347/384
EC = 210/230
EB =95/110
M =<50/<50
N = <500/100
A = 1,200/1,300

3/16
B =8,800
T = 2,900
E = 650
X = 2,100
TB = 464
EC = 580
EB =<50
M =<50
N = 120
A = 560

3/16
B =<1.0
T = 190
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

3/16
B =<1.0
T = 280
E = <1.0
X = <1.5
TB = <2.0
EC = <1.0
EB =<1.0
M =<1.0
N = <10
A = <10

EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

30 ppb Total Naphthalenes Isoncontour (in parts per billion)

0 100 ft
Scale

NORTH

GROUNDWATER QUALITY DATA

3/16	3/16= date of sampling
B = 240	B = benzene
T = 61	T = toluene
E = 4.5	E = ethyl benzene
X = 20	X = total xylenes
TB = 6.3	TB = tri-methyl benzenes
EC = 3.5	EC = 1,2 dichloroethane
EB = <1.0	EB = 1,2 dibromoethane
M = 1.6	M = methyl tertiary butyl ether
N = <10	N= naphthalenes +mono methyl naphthalenes
A = <10	A=acetone

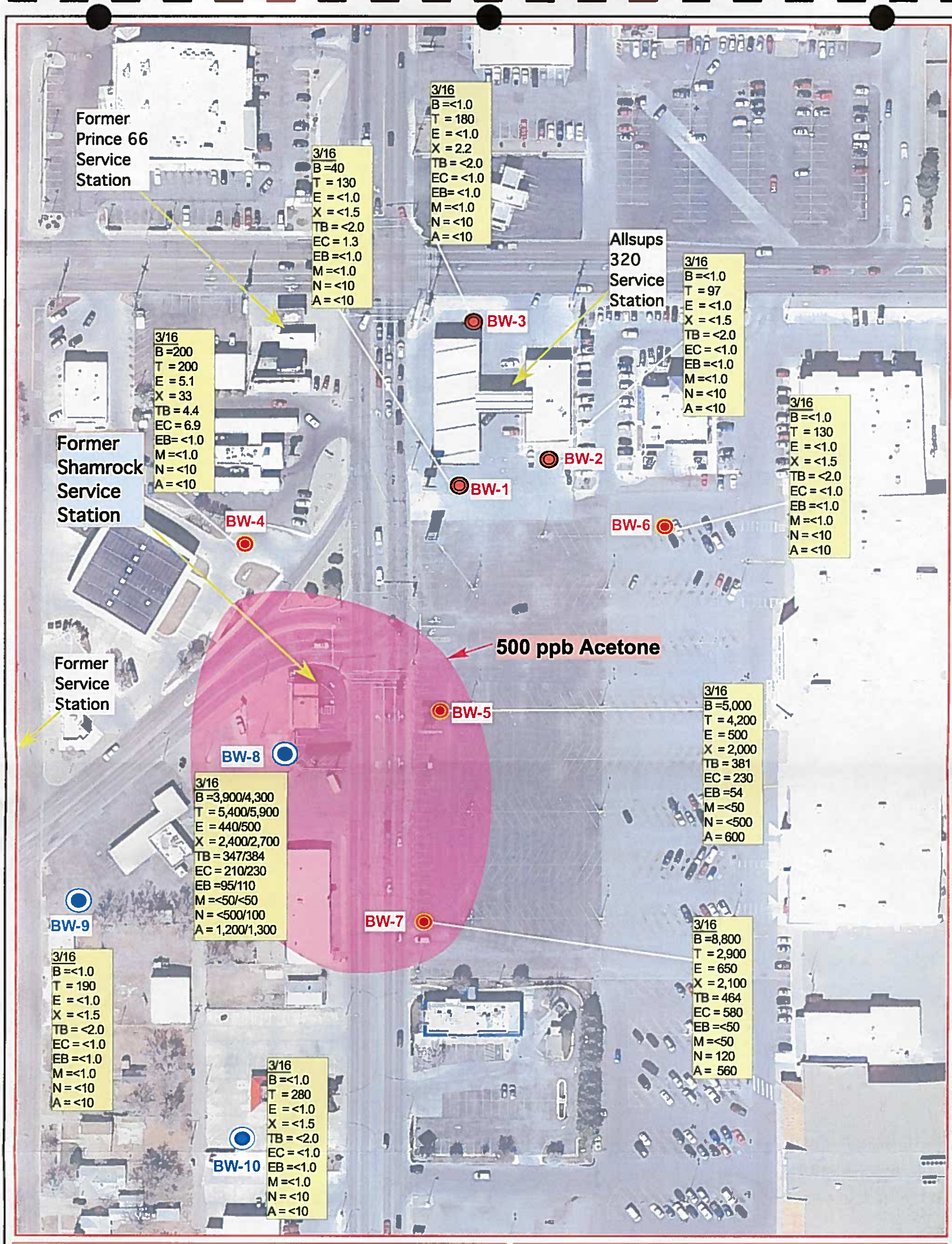
all concentrations in parts per billion (ppb)
NS = Not Sampled

TOTAL NAPHTHALENES GROUNDWATER QUALITY MAP 3/16 SAMPLING EVENT

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 836 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	FIGURE 8



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

BW-10 NEWLY INSTALLED MULTIPLE COMPLETION WELL

0 100 ft
Scale

NORTH

GROUNDWATER QUALITY DATA

3/16	3/16= date of sampling
B = 240	B = benzene
T = 61	T = toluene
E = 4.5	E = ethyl benzene
X = 20	X = total xylenes
TB = 6.3	TB = tri-methyl benzenes
EC = 3.5	EC = 1,2 dichloroethane
EB = <1.0	EB = 1,2 dibromoethane
M = 1.6	M = methyl tertiary butyl ether
N = <10	N= naphthalenes +mono methyl naphthalenes
A = <10	A=acetone

all concentrations in parts per billion (ppb)
NS = Not Sampled

ACETONE GROUNDWATER MAP
3/16 SAMPLING EVENT

Prince and Commerce Site - Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 886 Placitas, NM 87043

Drawn by:	WJB	5/16	Client: Allsups/NMED
Drafted by:	EMB	5/16	Job #1070
Reviewed by:	WJB	5/16	Figure 5