BROWN ENVIRONMENTAL, INC.
P.O. BOX 886 PLACITAS, NM 87043

COMBINED 1ST QUARTERLY GROUNDWATER AND SOIL VAPOR SAMPLING REPORT

ALLSUPS #320 SITE VICINITY
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

June 2015

Combined 1st Quarterly Groundwater and Soil Vapor Sampling Report

Allsups #320 Site Vicinity
21st Street and Prince Street
Clovis, New Mexico

BEI Job No. 1070
WPID #s17445
DID#17445-1
Facility #31013
RID #4623

Submitted to:

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1.0 INTRODUCTION

1.1 BACKGROUND/SITE HISTORY

On behalf of Allsup Petroleum, Inc. (Allsups), Brown Environmental, Inc. (BEI) performed tasks associated with completion of the 1st quarterly groundwater sampling of monitor wells installed in the vicinity of the Allsups #320 facility (the Site) located south of the intersection of Prince Street and 21st Street in Clovis, New Mexico (Figure 1). Previously, BEI had installed seven monitor wells in the Site vicinity in a series of subsurface investigations conducted between 2011 and 2014 (Figure 2). Additionally, BEI conducted a short-term feasibility study (FS) soil vacuum extraction (SVE) pilot testing event in late 2012.

In early 2011, Allsups completely demolished and removed the old station and constructed a new larger 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 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.

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-4, BW-5, BW-6, and BW-7) it became apparent that significant and previously unknown off-site hydrocarbon source(s) were present south of the Allsups property.

This report documents the first of four quarterly groundwater-sampling events, approved and funded by the New Mexico Environment Department-Petroleum Storage Tank Bureau (NMED). Additionally, BEI collected vapor samples for laboratory analysis from all seven deep wells at the Site, the results of which are reported herein.

1.2 PHYSIOGRAPHY/LAND USE

The Allsups 320 facility is located in Clovis, New Mexico at an 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 area immediately surrounding the Site is characterized by commercial use. A large shopping mall is located to the east and south with an IHOP restaurant located immediately east of the Site. Several businesses are located to the west including New Mexico Bank and Trust, Sonic Restaurant, and Fast Bucks Loans (formerly Prince Street 66 service station). Walgreens and Citizens Bank are located to the north. Residential housing is located further to the east and west of the Site with continued commercial usage extending north and south along Prince Street.

A records search utilizing historical databases found three potential sources in the area—the former Prince Street 66 and the Target Gas/Allsups #320 facilities located on the southwest and southeast corners of the intersection of 21st and Prince Streets, and a long abandoned former service station identified as Leo's Shamrock located on the west side of Prince Street just south of Commerce Way and west of well BW-5 (Figure 2). Recently, a fourth potential source, a former service station, was identified at the intersection of Ross Street and Commerce Way (just west of the map edge on Figure 2).

Based on the combined subsurface data collected to date, one or both of the latter two abandoned stations appears to have been the primary source for soil and groundwater hydrocarbon contamination in the Site vicinity.

1.3 HYDROGEOLOGIC SETTING

During the combined BEI investigations, three boreholes (B-1, B-2, and B-3), three nested wells (BW-1, BW-2, and BW-3), and four single completion wells (BW-4, BW-5, BW-6, and BW-7) were advanced in the Site vicinity at the locations shown in Figure 2. Retrieved soil samples from BEI advanced drillholes identified four primary Lithologic Units at the Site.

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 zones are present towards the bottom of Lithologic Unit I. Lithologic Unit II consists primarily of silty sand with prominent stage 3 to 4 caliche extending from the base of Lithologic Unit I to approximately 67 to 75 feet bsg. Lithologic Unit III extends below Unit II to a depth of between approximately 280 to 335 feet bsg and consists of very fine sand with minor 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 326 feet bsg during the May 2015 sampling and gauging event. Historical water level measurements over time are presented in Table 1. A potentiometric surface map using the data collected from this event is presented in Figure 3. Calculated groundwater flow direction was to the south-southeast at a hydraulic gradient of approximately 0.0025 feet/foot. Based on discussions with local water well drillers, the regional groundwater has been declining up to several feet per year for several decades in the Site vicinity. Between April 2012 and May 2015, water levels have declined in well BW-1d by 4.36 feet.

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

1.4 SCOPE OF WORK

This quarterly report was prepared in accordance with the workplan and budget submitted to NMED on February 11, 2015.

2.0 FIELD AND LABORATORY SAMPLING METHODS AND PROCEDURES

2.1 GENERAL

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

- Wellhead 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 at the Site.

2.2 WELLHEAD SOIL VAPOR SAMPLING AND ANALYSIS

During prior activities at the Site, monitor wells were observed to 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 any of the four NMED-approved groundwater sampling events.

During the first of these sampling events, groundwater levels were measured in each of the deep wells on the morning of May 7, 2015. Upon initial access to each well, photoionization detector (PID) readings were collected on well vapors, however conditions were not favorable and wells were not observed to be under positive pressure. As the day proceeded an impending change in the weather was observed and the caps were left off each well. By late in the afternoon, active venting was observed at each wellhead. The wells were allowed to purge to obtain representative vapor samples and periodically monitored for stabilization. Between 16:55 and 17:55 vapor samples were collected from each of the seven deep wells in the Site vicinity (BW-1d through BW-7d). Results of the laboratory analysis and field screening are summarized in Table 2.

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 hand vacuum pump with an approximately three-foot long tygon tube lowered into the well. 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 Hall Environmental

Laboratory Inc. (HEAL) in Albuquerque, New Mexico for laboratory analyses. New tygon tubing was used between each well and the sample pump purged between wells. These 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.
- Benzene, toluene, ethyl benzene, and total xylenes (BTEX), and methyl tertiary butyl ether (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 A. Results of the laboratory analyses are presented in Table 2 and in Figures 4 and 5.

2.3 GROUNDWATER SAMPLING AND ANALYSIS

During the week of May 7, 2015, groundwater samples were collected from all seven deep monitor wells for laboratory analysis. Groundwater laboratory analytical results are presented on Table 3, Figures 6, 7, and 8, and in Appendix A.

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. Wells were purged using either a Grundfos downhole pump submersible pump or a 10-foot long stainless steel bailer mounted on a workover rig provided by Yellow Jacket Drilling Services (YJDS). Approximately 4 well volumes were removed from each well prior to collection of groundwater samples. The downhole pump was decontaminated prior to use and between each well by steam cleaning and using an alconox and tap water rinse.

Groundwater samples were collected from each well using anew 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-7 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, tri-methyl benzenes (TMBs), 1,2 dichloroethane (EDC), 1,2 dibromoethane (EDB), total naphthalenes (NAPH), and MTBE using EPA Method 8260.

3.0 SAMPLING RESULTS

3.1 SOIL VAPOR SAMPLING RESULTS

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.

The well soil vapor survey conducted during this event was performed over a one-hour period using the same sampling methodology on wells of similar construction to accurately characterize deep zone in-situ subsurface vapor hydrocarbon conditions across the Site vicinity. These data are summarized in Table 2 and Figures 4 and 5.

A clear pattern is present which mirrors the groundwater quality data presented below. The highest soil vapor TPH concentrations (126,000 micrograms/liter [ug/l], and total BTEX concentrations (5,810 ug/l) were present in deep zone well BW-5. Surrounding deep wells BW-1, BW-4, and BW-7 had lesser but still high levels of TPH (between 26,000 and 39,700 ug/l) and total BTEX (between 605 and 1,149 ug/l). TPH and total BTEX levels in samples collected from deep wells BW-2, BW-3, and BW-6 were substantially lower, especially from BW-6 on the shopping center parking lot.

Figures 4 and 5 highlight TPH and toluene vapor levels, respectively, in deep wells at the Site. The pattern of TPH and especially toluene distribution clearly indicate an off-site hydrocarbon source to the south of the Allsups property. Furthermore, these data suggest that a hydrocarbon release from the former Allsups/Target PSTs of significant magnitude to overprint a separate hydrocarbon signature onto the deep zone hydrocarbon release to the south has not occurred.

3.2 GROUNDWATER SAMPLING RESULTS

Results of the May 2015 and April 2014 groundwater-sampling events are highlighted in Figures 6, 7, and 8 and in Table 3. Combined sampling data indicate the presence of a large dissolved-phase gasoline hydrocarbon groundwater plume in the Site vicinity. In comparison to the earlier 2014 sampling event, dissolved-phase hydrocarbon levels increased, especially in off-site wells BW-4, BW-5, and BW-7. The reason for these observed increases is likely due to additional

equilibration time following air-rotary casing hammer (ARCH) drilling of the wells.

Benzene was detected at levels exceeding the 10 ppb WQCC standard in groundwater samples collected from four wells, with the highest concentrations in off-site wells BW-4, (1,100 ppb), BW-5 (3,700 ppb), and BW-7 (3,200 and 3,400 ppb). Only one well (BW-1d) on the Allsups property contained benzene above WQCC standard at a concentration of 130 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-4 (32 ppb), BW-5 (180 ppb), and BW-7 (230 and 220 ppb). NAPH exceeded the 30 ppb WQCC standard in wells BW-5 (59.9 ppb) and BW-7 (45.5 and 44.7 ppb). Total xylenes, EDB, and toluene were also identified in groundwater samples at concentrations above standards in one or more off-site wells. 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 immediately beneath 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 appears to be the closest well to the primary hydrocarbon source impacting soil and groundwater taking these factors into account.

Historic groundwater flow determined by calculating the potentiometric surface for the September 24, 2012 and April 29, 2014 gauging events was to the south. During this most recent May 8, 2015 event, groundwater flow was calculated to be south and southeasterly (Figure 3). As with the soil vapor data discussed earlier, the current distribution of the dissolved-phase groundwater plume suggests a primary hydrocarbon source area to the south of the Allsups property.

4.0 CONCLUSIONS

Based on the available data collected during the earlier drilling events, the SVE test, and this most recent soil vapor and groundwater sampling event, the following conclusions are presented for the Site vicinity:

- Based on vadose zone and groundwater hydrocarbon plume geometry, the former PST systems at the Allsups property (formerly Target Gas) do not appear to be the primary hydrocarbon source in the Site vicinity. Instead, the data suggest a very large hydrocarbon release to the south, possibly to the west of well BW-5, which has adversely affected many surrounding properties including the Allsups facility. As noted above, two former service stations were located in this immediate area.

- The magnitude and extent of the soil and groundwater hydrocarbon contamination has not been fully characterized in the Site vicinity. NMED has recently approved a workplan and budget for the installation of up to five additional groundwater wells in the Site vicinity. Allsups and BEI are currently negotiating for site access prior to drilling these wells.

5.0 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 886 FLAGSTAFF, NM 87045

Drawn by:	WJB	6/15	Client: Allsups Petroleum
Drafted by:	EMB	6/15	Job #: 1070
Reviewed by:	WJB	6/15	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
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
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
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
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
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
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

TABLE 2
SUMMARY OF MONITOR WELL OFF-GAS VAPOR FIELD AND LABORATORY ANALYTICAL DATA
ALLSUPS #320 FACILITY CLOVIS, NEW MEXICO

SAMPLE ID		BTEX/TPH LAB						PID READINGS		
TEST WELL (SAMPLE I.D.)	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)	5/7/15 A.M. readings (ppm/v)	5/7/15 ~16:35-17:55 readings (ppm/v)	5/7/15 ~18:10-19:00 readings (ppm/v)
BW-1d @17:17	5/7/15	530	47	<10	28.0	605	38,900	0.0	730	752
BW-2d @17:55	5/7/15	5.0	8.3	1.10	6.1	20.5	901	0.1	71	---
BW-3d @ 17:22	5/7/15	22	22	2.3	15.0	61.3	723	0.4	84	110
BW-4d @ 16:55	5/7/15	540	450	29	130	1,149	39,700	0.3	1,050	1,056
BW-5d @ 17:06	5/7/15	2,500	2,400	190	720	5,810	126,000	47	1,300	1,498+
BW-6d @ 17:12	5/7/15	2.0	6.1	0.57	2.7	11.4	61.8	0.0	1.4	2.9
BW-7d @ 17:00	5/7/15	490	420	24	100	1,034	2,330	0.4	1,030	1,020

(+)=instrument lamp fogging

TABLE 3
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
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
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
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
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
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
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
duplicate	05/08/15	3,400	1,200	210	910	<1.0	124	220	9.2	44.7
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

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

May 19, 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.: 1505458

Dear Bill Brown:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/11/2015 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.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-001 **Matrix:** AQUEOUS

Client Sample ID: BW-2d
Collection Date: 5/7/2015 11:12:00 AM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: **cadg**
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
2-Hexanone	ND	10		µg/L	1	5/16/2015 5:54:17 PM	R26239
Isopropylbenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
4-Methyl-2-pentanone	ND	10		µg/L	1	5/16/2015 5:54:17 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
n-Propylbenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 5:54:17 PM	R26239
Xylenes, Total	ND	1.5		µg/L	1	5/16/2015 5:54:17 PM	R26239
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	5/16/2015 5:54:17 PM	R26239
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	5/16/2015 5:54:17 PM	R26239
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	5/16/2015 5:54:17 PM	R26239
Surr: Toluene-d8	98.4	70-130		%REC	1	5/16/2015 5:54:17 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-002 **Matrix:** AQUEOUS

Client Sample ID: BW-6
Collection Date: 5/7/2015 1:15:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
2-Hexanone	ND	10		µg/L	1	5/16/2015 6:23:16 PM	R26239
Isopropylbenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
4-Methyl-2-pentanone	ND	10		µg/L	1	5/16/2015 6:23:16 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
n-Propylbenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 6:23:16 PM	R26239
Xylenes, Total	ND	1.5		µg/L	1	5/16/2015 6:23:16 PM	R26239
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	5/16/2015 6:23:16 PM	R26239
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	5/16/2015 6:23:16 PM	R26239
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	5/16/2015 6:23:16 PM	R26239
Surr: Toluene-d8	99.1	70-130		%REC	1	5/16/2015 6:23:16 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-003 **Matrix:** AQUEOUS

Client Sample ID: BW-3d
Collection Date: 5/7/2015 2:47:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
2-Hexanone	ND	10		µg/L	1	5/16/2015 6:52:14 PM	R26239
Isopropylbenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
4-Methyl-2-pentanone	ND	10		µg/L	1	5/16/2015 6:52:14 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
n-Propylbenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 6:52:14 PM	R26239
Xylenes, Total	3.5	1.5		µg/L	1	5/16/2015 6:52:14 PM	R26239
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	5/16/2015 6:52:14 PM	R26239
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	5/16/2015 6:52:14 PM	R26239
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	5/16/2015 6:52:14 PM	R26239
Surr: Toluene-d8	99.8	70-130		%REC	1	5/16/2015 6:52:14 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-004 **Matrix:** AQUEOUS

Client Sample ID: BW-4
Collection Date: 5/7/2015 4:38:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
2-Hexanone	ND	10		µg/L	1	5/16/2015 7:21:14 PM	R26239
Isopropylbenzene	3.4	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
4-Methyl-2-pentanone	ND	10		µg/L	1	5/16/2015 7:21:14 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
n-Propylbenzene	7.3	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 7:21:14 PM	R26239
Xylenes, Total	600	30		µg/L	20	5/18/2015 11:27:38 AM	R26263
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	5/16/2015 7:21:14 PM	R26239
Surr: 4-Bromofluorobenzene	79.7	70-130		%REC	1	5/16/2015 7:21:14 PM	R26239
Surr: Dibromofluoromethane	79.8	70-130		%REC	1	5/16/2015 7:21:14 PM	R26239
Surr: Toluene-d8	100	70-130		%REC	1	5/16/2015 7:21:14 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-005 **Matrix:** AQUEOUS

Client Sample ID: BW-1d
Collection Date: 5/7/2015 6:36:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Hexachlorobutadiene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
2-Hexanone	ND	10		µg/L	1	5/18/2015 12:25:19 PM	R26263
Isopropylbenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
4-Isopropyltoluene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
4-Methyl-2-pentanone	ND	10		µg/L	1	5/18/2015 12:25:19 PM	R26263
Methylene Chloride	ND	3.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
n-Butylbenzene	ND	3.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
n-Propylbenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
sec-Butylbenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Styrene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
tert-Butylbenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
trans-1,2-DCE	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Trichlorofluoromethane	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Vinyl chloride	ND	1.0		µg/L	1	5/18/2015 12:25:19 PM	R26263
Xylenes, Total	5.6	1.5		µg/L	1	5/18/2015 12:25:19 PM	R26263
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	5/18/2015 12:25:19 PM	R26263
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	5/18/2015 12:25:19 PM	R26263
Surr: Dibromofluoromethane	100	70-130		%REC	1	5/18/2015 12:25:19 PM	R26263
Surr: Toluene-d8	99.0	70-130		%REC	1	5/18/2015 12:25:19 PM	R26263

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-006
Matrix: AQUEOUS
Client Sample ID: BW-8
Collection Date: 5/8/2015 10:00:00 AM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
2-Hexanone	75	10		µg/L	1	5/16/2015 8:19:07 PM	R26239
Isopropylbenzene	6.1	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
4-Methyl-2-pentanone	29	10		µg/L	1	5/16/2015 8:19:07 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
n-Propylbenzene	8.7	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 8:19:07 PM	R26239
Xylenes, Total	910	15		µg/L	10	5/18/2015 2:20:53 PM	R26263
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	1	5/16/2015 8:19:07 PM	R26239
Surr: 4-Bromofluorobenzene	82.8	70-130		%REC	1	5/16/2015 8:19:07 PM	R26239
Surr: Dibromofluoromethane	99.8	70-130		%REC	1	5/16/2015 8:19:07 PM	R26239
Surr: Toluene-d8	100	70-130		%REC	1	5/16/2015 8:19:07 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-007 **Matrix:** AQUEOUS

Client Sample ID: BW-7
Collection Date: 5/8/2015 10:44:00 AM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Hexachlorobutadiene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
2-Hexanone	82	10		µg/L	1	5/16/2015 9:16:56 PM	R26239
Isopropylbenzene	6.5	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
4-Isopropyltoluene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
4-Methyl-2-pentanone	31	10		µg/L	1	5/16/2015 9:16:56 PM	R26239
Methylene Chloride	ND	3.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
n-Butylbenzene	ND	3.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
n-Propylbenzene	8.6	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
sec-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Styrene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
tert-Butylbenzene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
trans-1,2-DCE	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Trichlorofluoromethane	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Vinyl chloride	ND	1.0		µg/L	1	5/16/2015 9:16:56 PM	R26239
Xylenes, Total	920	15		µg/L	10	5/18/2015 2:49:48 PM	R26263
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	1	5/16/2015 9:16:56 PM	R26239
Surr: 4-Bromofluorobenzene	84.7	70-130		%REC	1	5/16/2015 9:16:56 PM	R26239
Surr: Dibromofluoromethane	103	70-130		%REC	1	5/16/2015 9:16:56 PM	R26239
Surr: Toluene-d8	108	70-130		%REC	1	5/16/2015 9:16:56 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-008

Client Sample ID: TRIP BLANK
Collection Date:
Matrix: TRIP BLANK **Received Date:** 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Hexachlorobutadiene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
2-Hexanone	ND	10		µg/L	1	5/18/2015 3:47:19 PM	R26263
Isopropylbenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
4-Isopropyltoluene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
4-Methyl-2-pentanone	ND	10		µg/L	1	5/18/2015 3:47:19 PM	R26263
Methylene Chloride	ND	3.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
n-Butylbenzene	ND	3.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
n-Propylbenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
sec-Butylbenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Styrene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
tert-Butylbenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
trans-1,2-DCE	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Trichlorofluoromethane	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Vinyl chloride	ND	1.0		µg/L	1	5/18/2015 3:47:19 PM	R26263
Xylenes, Total	ND	1.5		µg/L	1	5/18/2015 3:47:19 PM	R26263
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	5/18/2015 3:47:19 PM	R26263
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	1	5/18/2015 3:47:19 PM	R26263
Surr: Dibromofluoromethane	103	70-130		%REC	1	5/18/2015 3:47:19 PM	R26263
Surr: Toluene-d8	98.8	70-130		%REC	1	5/18/2015 3:47:19 PM	R26263

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505458-009
Matrix: AQUEOUS
Client Sample ID: BW-5
Collection Date: 5/8/2015 2:45:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1-Dichloropropene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
Hexachlorobutadiene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
2-Hexanone	76	50		µg/L	5	5/16/2015 10:43:26 PM	R26239
Isopropylbenzene	14	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
4-Isopropyltoluene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
4-Methyl-2-pentanone	ND	50		µg/L	5	5/16/2015 10:43:26 PM	R26239
Methylene Chloride	ND	15		µg/L	5	5/16/2015 10:43:26 PM	R26239
n-Butylbenzene	ND	15		µg/L	5	5/16/2015 10:43:26 PM	R26239
n-Propylbenzene	35	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
sec-Butylbenzene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
Styrene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
tert-Butylbenzene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	5/16/2015 10:43:26 PM	R26239
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
trans-1,2-DCE	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,1,1-Trichloroethane	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,1,2-Trichloroethane	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
Trichloroethene (TCE)	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
Trichlorofluoromethane	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
1,2,3-Trichloropropane	ND	10		µg/L	5	5/16/2015 10:43:26 PM	R26239
Vinyl chloride	ND	5.0		µg/L	5	5/16/2015 10:43:26 PM	R26239
Xylenes, Total	1700	75		µg/L	50	5/16/2015 10:14:38 PM	R26239
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	5	5/16/2015 10:43:26 PM	R26239
Surr: 4-Bromofluorobenzene	90.3	70-130		%REC	5	5/16/2015 10:43:26 PM	R26239
Surr: Dibromofluoromethane	88.1	70-130		%REC	5	5/16/2015 10:43:26 PM	R26239
Surr: Toluene-d8	98.9	70-130		%REC	5	5/16/2015 10:43:26 PM	R26239

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505458**

19-May-15

Client: Brown Environmental Inc.
Project: Allsups #320

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R26239**	RunNo: **26239**
Prep Date:	Analysis Date: **5/16/2015**	SeqNo: **778827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
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		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	9.7		10.00		96.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R26239**	RunNo: **26239**
Prep Date:	Analysis Date: **5/16/2015**	SeqNo: **778829** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Chlorobenzene	20	1.0	20.00	0	99.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505458**

19-May-15

Client: Brown Environmental Inc.
Project: Allsups #320

Sample ID **vcb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R26239**	RunNo: **26239**
Prep Date:	Analysis Date: **5/17/2015**	SeqNo: **779195** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
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		97.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505458**

19-May-15

Client: Brown Environmental Inc.

Project: Allsups #320

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R26263**	RunNo: **26263**
Prep Date:	Analysis Date: **5/18/2015**	SeqNo: **779854** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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: 1505458 | RcptNo: 1

Received by/date: CS 05/11/15

Logged By: Ashley Gallegos 5/11/2015 2:26:00 PM AG

Completed By: Ashley Gallegos 5/11/2015 3:38:37 PM AG

Reviewed By: CS 05/12/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☑ AG 05/12/15
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	4.2	Good	Not Present			

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

May 19, 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.: 1505457

Dear Bill Brown:

Hall Environmental Analysis Laboratory received 7 sample(s) on 5/11/2015 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.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505457-002 **Matrix:** AIR

Client Sample ID: BW-7d
Collection Date: 5/7/2015 5:00:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	26000	250		µg/L	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: <C6	32.9	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C06-C7	51.2	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C07-C8	13.6	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C08-C9	1.80	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C09-C10	0.500	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C10-C11	ND	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C11-C12	ND	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C12-C14	ND	0		%	50	5/14/2015 10:10:01 AM	R26211
% GRO Hydrocarbons: C14+	ND	0		%	50	5/14/2015 10:10:01 AM	R26211
Surr: BFB	89.3	44.5-202		%REC	50	5/14/2015 10:10:01 AM	R26211
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	50	5/14/2015 10:10:01 AM	R26211
Benzene	490	10		µg/L	100	5/14/2015 2:50:16 PM	R26211
Toluene	420	5.0		µg/L	50	5/14/2015 10:10:01 AM	R26211
Ethylbenzene	24	5.0		µg/L	50	5/14/2015 10:10:01 AM	R26211
Xylenes, Total	100	10		µg/L	50	5/14/2015 10:10:01 AM	R26211
Surr: 4-Bromofluorobenzene	103	84.9-140		%REC	50	5/14/2015 10:10:01 AM	R26211

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505457-004 **Matrix:** AIR

Client Sample ID: BW-6d
Collection Date: 5/7/2015 5:12:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	61.8	10.0		µg/L	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: <C6	9.50	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C06-C7	35.4	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C07-C8	36.1	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C08-C9	10.3	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C09-C10	7.20	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C10-C11	1.20	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C11-C12	0.200	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C12-C14	0.100	0		%	2	5/15/2015 9:33:36 AM	R26224
% GRO Hydrocarbons: C14+	ND	0		%	2	5/15/2015 9:33:36 AM	R26224
Surr: BFB	87.4	44.5-202		%REC	2	5/15/2015 9:33:36 AM	R26224
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.50		µg/L	2	5/15/2015 9:33:36 AM	R26224
Benzene	2.0	0.20		µg/L	2	5/15/2015 9:33:36 AM	R26224
Toluene	6.1	0.20		µg/L	2	5/15/2015 9:33:36 AM	R26224
Ethylbenzene	0.57	0.20		µg/L	2	5/15/2015 9:33:36 AM	R26224
Xylenes, Total	2.7	0.40		µg/L	2	5/15/2015 9:33:36 AM	R26224
Surr: 4-Bromofluorobenzene	98.3	84.9-140		%REC	2	5/15/2015 9:33:36 AM	R26224

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Brown Environmental Inc.
Project: Allsups #320
Lab ID: 1505457-006 **Matrix:** AIR

Client Sample ID: BW-3d
Collection Date: 5/7/2015 5:22:00 PM
Received Date: 5/11/2015 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	723	25.0		µg/L	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: <C6	22.0	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C06-C7	43.5	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C07-C8	25.9	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C08-C9	4.80	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C09-C10	2.80	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C10-C11	0.900	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C11-C12	0.100	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C12-C14	ND	0		%	5	5/15/2015 11:24:05 AM	R26224
% GRO Hydrocarbons: C14+	ND	0		%	5	5/15/2015 11:24:05 AM	R26224
Surr: BFB	81.1	44.5-202		%REC	5	5/15/2015 11:24:05 AM	R26224
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	1.2		µg/L	5	5/15/2015 11:24:05 AM	R26224
Benzene	22	0.50		µg/L	5	5/15/2015 11:24:05 AM	R26224
Toluene	22	0.50		µg/L	5	5/15/2015 11:24:05 AM	R26224
Ethylbenzene	2.3	0.50		µg/L	5	5/15/2015 11:24:05 AM	R26224
Xylenes, Total	15	1.0		µg/L	5	5/15/2015 11:24:05 AM	R26224
Surr: 4-Bromofluorobenzene	83.1	84.9-140	S	%REC	5	5/15/2015 11:24:05 AM	R26224

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
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
O	RSD is greater than RSDlimit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505457**

19-May-15

Client: Brown Environmental Inc.

Project: Allsups #320

Sample ID **1505457-001ADUP**	SampType: **DUP**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BW-4d**	Batch ID: **R26211**	RunNo: **26211**
Prep Date:	Analysis Date: **5/14/2015**	SeqNo: **777687** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37000	250						6.86	20	
Surr: BFB	95000		100000		94.7	44.5	202	0	0	

Sample ID **1505457-004ADUP**	SampType: **DUP**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BW-6d**	Batch ID: **R26224**	RunNo: **26224**
Prep Date:	Analysis Date: **5/15/2015**	SeqNo: **778375** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	61	10						1.44	20	
Surr: BFB	3300		4000		82.6	44.5	202	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

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: 1505457 | RcptNo 1

Received by/date: CS 05/11/15

Logged By: Ashley Gallegos 5/11/2015 2:26:00 PM

Completed By: Ashley Gallegos 5/11/2015 3:35:24 PM

Reviewed By: CS 05/12/15

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	NA	Good	Not Present			

EXPLANATION

- BW-6 — Single Completion Monitor Well Location
- BW-3 — Nested Monitor Well Location
- B-1 — Soil Boring Location

0 100 ft
Scale

NORTH

SITE BASE MAP

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 2

EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

Approximate Direction of Groundwater Flow

Groundwater Elevation in Feet Above Mean Sea level

3957.20'

Equipotential Line

BW-3 6,469.74'

0 100 ft

Scale

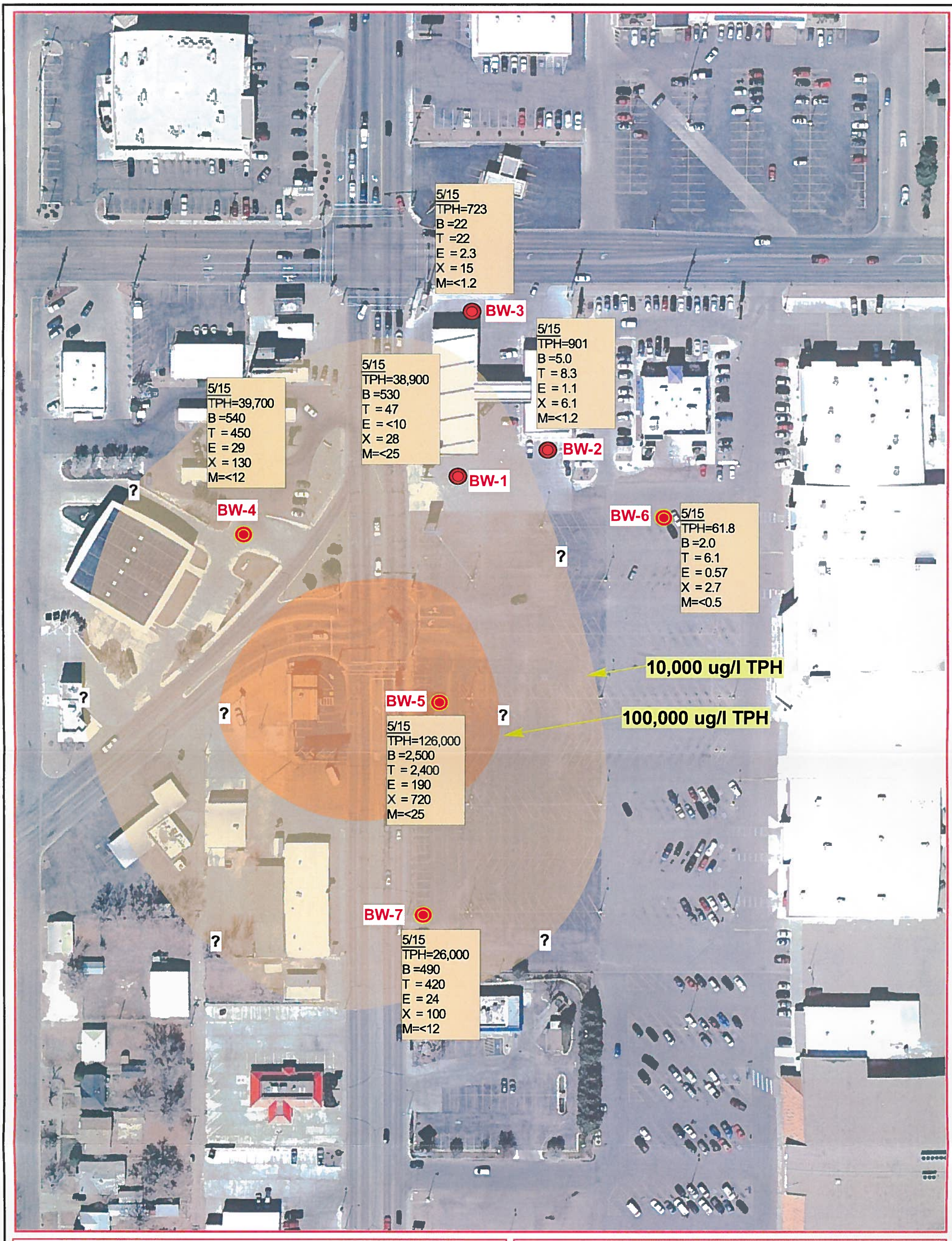
NORTH

GROUNDWATER POTENTIOMETRIC SURFACE MAP 5/7/15

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 3



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

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

LABORATORY ANALTICAL DATA all concentrations in ug/l	
5/15	SAMPLE DATE
TPH=26,000	Total Petroleum Hydrocarbons
B =490	Benzene
T = 420	Toluene
E = 24	Ethyl benzene
X = 100	Total Xylenes
M=<12	MTBE

0 100 ft
Scale

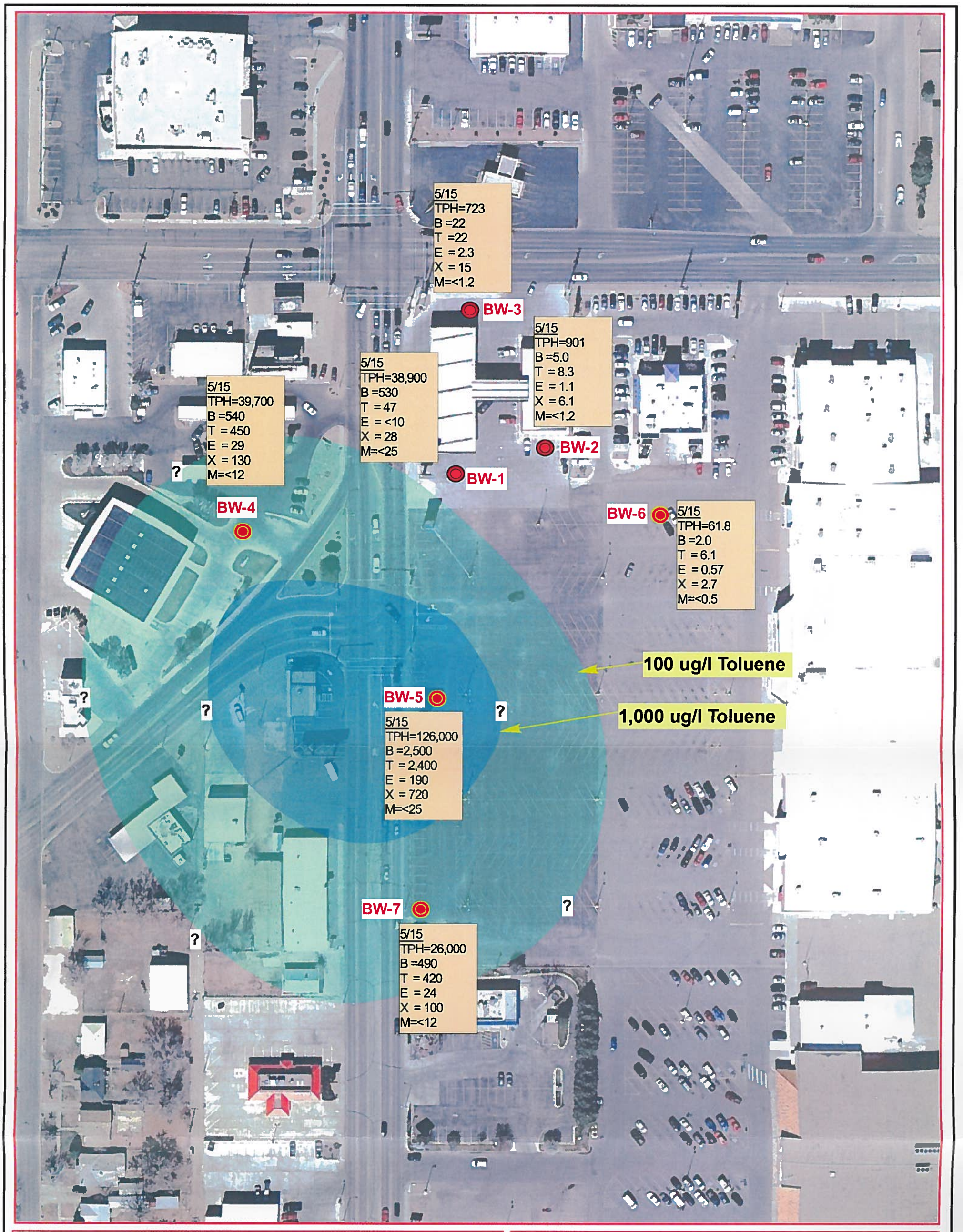
NORTH

TPH VAPOR CONCENTRATIONS IN DEEP COMPLETION MONITOR WELLS 5/7/15

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 4



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

1,000 Toluene Vapor Isoncontour (in micrograms/liter (ug/l)

LABORATORY ANALTICAL DATA all concentrations in ug/l	
5/15	SAMPLE DATE
TPH=26,000	Total Petroleum Hydrocarbons
B =490	Benzene
T = 420	Toluene
E = 24	Ethyl benzene
X = 100	Total Xylenes
M=<12	MTBE

0 100 ft
Scale

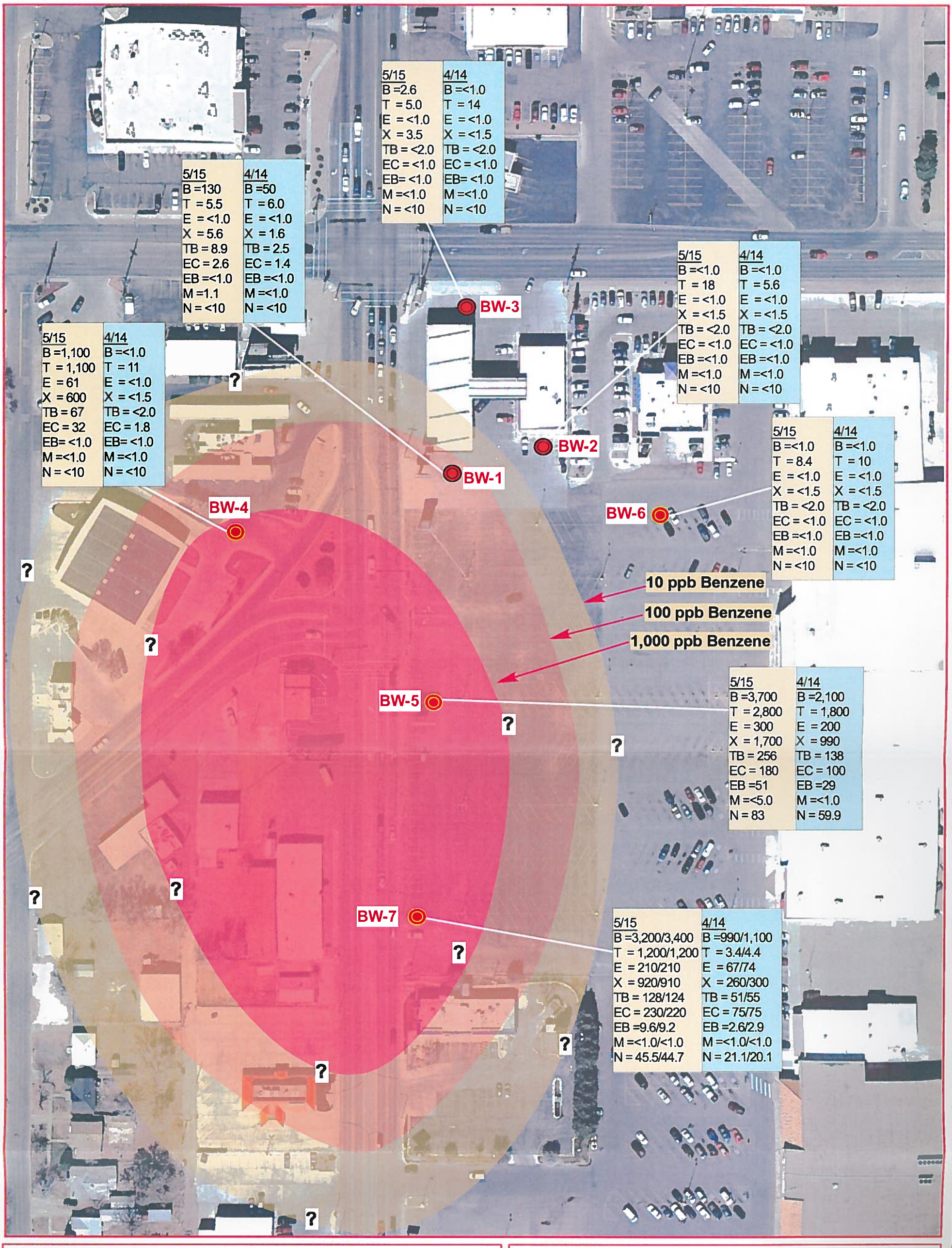
NORTH

TOLUENE VAPOR CONCENTRATIONS IN DEEP COMPLETION MONITOR WELLS 5/7/15

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 5



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

10 ppb — Benzene Isoncontour (in parts per billion)

GROUNDWATER QUALITY DATA

5/15	5/15= 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

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

0 100 ft
Scale

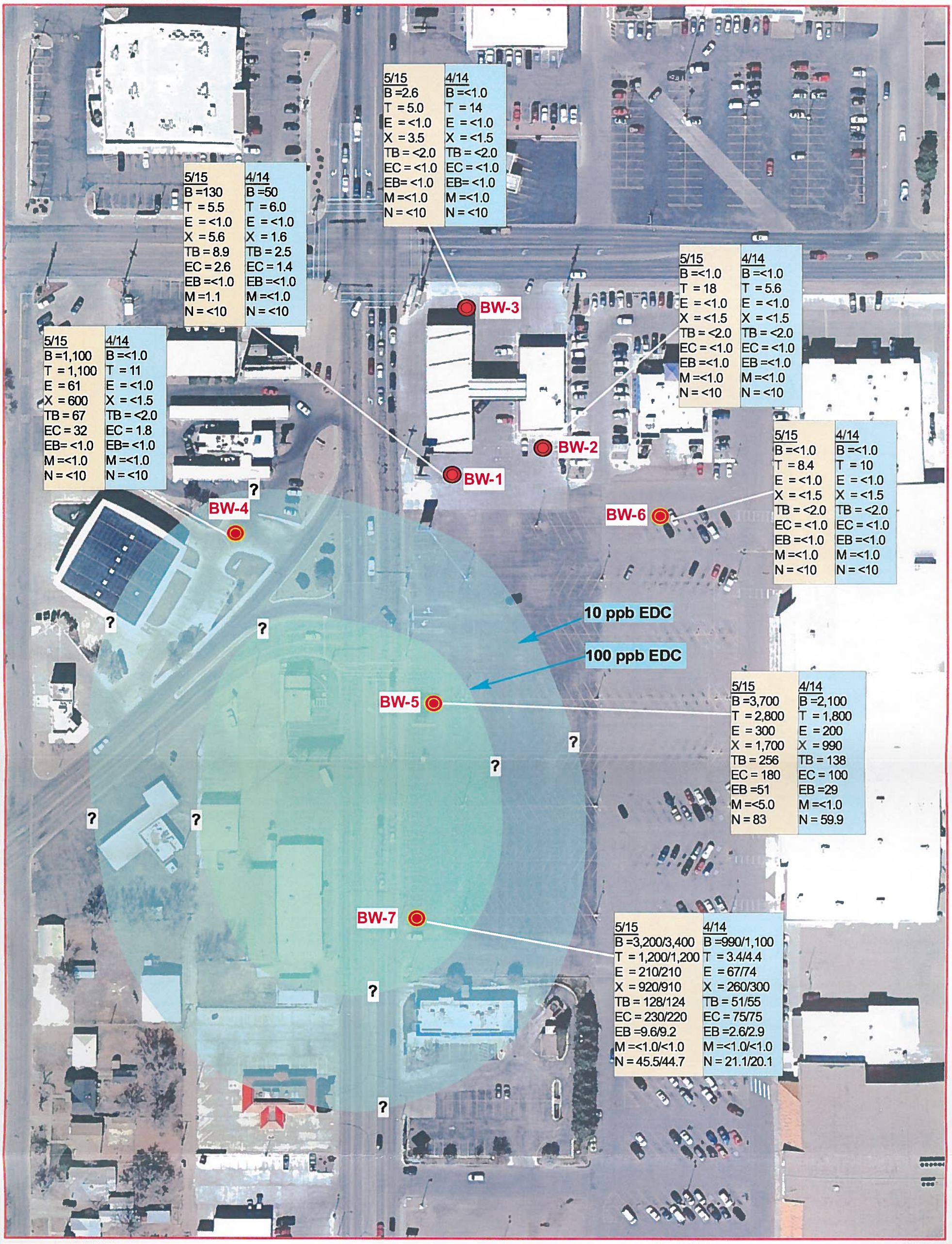
NORTH

BENZENE GROUNDWATER QUALITY MAP- 5/15 SAMPLING EVENT

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	Figure 6



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

10 ppb EDC Isoncontour (in parts per billion)

GROUNDWATER QUALITY DATA

5/15	5/15= 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

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

0 100 ft
Scale

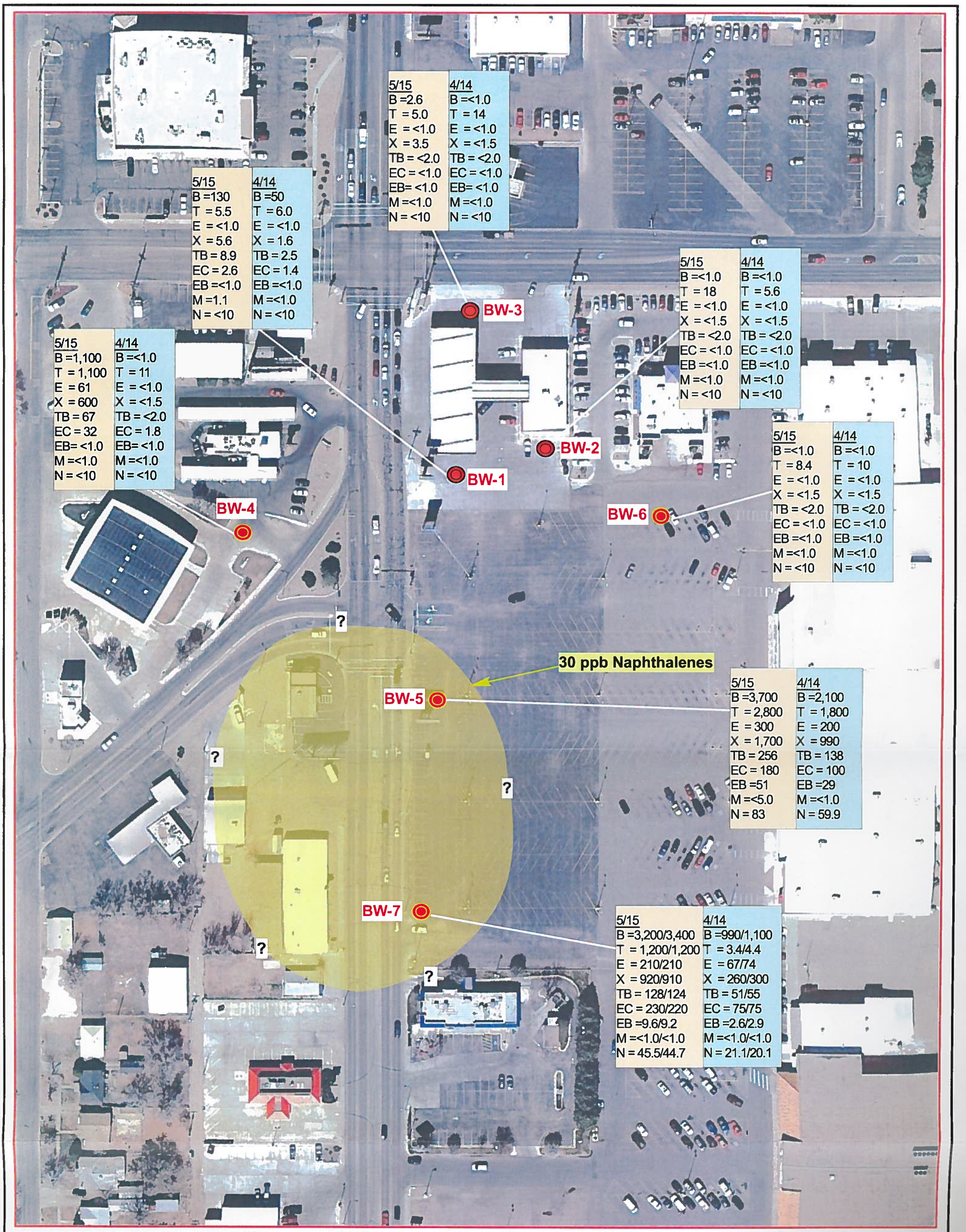
NORTH

1,2 DICHLOROETHANE (EDC) GROUNDWATER QUALITY MAP- 5/15 SAMPLING EVENT

Allsups Store #320 Clovis, New Mexico

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

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 7



EXPLANATION

BW-6 Single Completion Monitor Well Location

BW-3 Nested Monitor Well Location

30 ppb Naphthalenes Isoncontour (in parts per billion)

GROUNDWATER QUALITY DATA

5/15	5/15= 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

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

0 100 ft
Scale

NORTH

TOTAL NAPHTHALENES GROUNDWATER QUALITY MAP- 5/15 SAMPLING EVENT

Allsups Store #320 Clovis, New Mexico

BROWN ENVIRONMENTAL, INC.
P.O. Box 856 Placitas, NM 87043

Drawn by:	WJB	6/15	Client: Allsups
Drafted by:	EMB	6/15	Job #1070
Reviewed by:	WJB	6/15	FIGURE 8