BP America Production Company
200 Energy Court
Farmington, NM 87401
Phone: (505) 326-9200

June 23, 2017

Randolph Bayliss
Hydrologist – Dist. III & IV
New Mexico Oil Conservation Division
Environmental Bureau
1220 St. Francis Drive
Santa Fe, NM 87505

Re: Request for Permanent Closure
Gallegos Canyon Unit 169E; 3RP-441-0
API No. 30-045-24176; Unit letter H, Section 35, T29N, R12W; GPS: 36.68519°, -108.06251°

Dear Mr. Bayliss :

BP America Production Company has retained Blagg Engineering, Inc. to conduct environmental monitoring of soil excavation and groundwater at the Gallegos Canyon Unit 169E currently operated by BP America Production Company. The site is located on private property.

Historical impacts were found at the location in May of 2011. The soil impacts were remediated via excavation and soils transported off site for landfarm treatment. Following the remedial excavation, groundwater monitoring wells were installed and sampled until each reached satisfactory water quality standards for 8 consecutive quarters.

The attached report requesting site closure demonstrates groundwater contaminants below the New Mexico Water Quality Control Commission's standards for all required constituents for four consecutive quarters per the BP and NMOCD agreed Groundwater Management Plan.

If you have any questions concerning this document, please contact myself (steven.moskal@bp.com) at the address or phone number listed above. Thank you for your cooperation and assistance.

Sincerely,

Steve Moskal
Field Environmental Coordinator

cc: Mr. Cory Smith & Vanessa Fields, Environmental Specialists, NMOCD District III Office, 1000 Rio Brazos Road Aztec, NM

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

June 23, 2017

Mr. Steve Moskal
BP America Production Company
200 Energy Ct
Farmington, New Mexico 87401

Re: GCU 169E - (H) Sec 35 – T29N – R12W
San Juan County, New Mexico
Soil & Groundwater Remediation Closure
NMOCD 3RP - 441

Dear Mr. Moskal:

At BP's request, Blagg Engineering, Inc. (BEI) conducted monitoring and sampling during soil and groundwater remedial activities at the BP operated GCU 169E gas well site, located in rural San Juan County, New Mexico in (H) Section 35, Township 29 North, Range 12 West. Historical soil impacts from an unknown source were discovered on May 24, 2011 during work at the site. Removal of these impacts began immediately, but due to active natural gas and produced water gathering lines within the impact area final excavation of impacted soil was not completed until January 11, 2013.

Groundwater at the site was present at a depth of approximately 8 feet below surface grade. Following remedial excavation, six (6) groundwater monitor wells were installed within and surrounding the excavation area in early April 2013. Initial sampling of the wells was conducted on April 23, 2013 and by May 14, 2015 each of the wells had achieved 8 consecutive quarters of analytical testing with parameters within New Mexico Oil Conservation Division (NMOCD) closure standards for all regulated constituents.

Attached is documentation of sampling and laboratory test reports confirming that both soil and groundwater at the site meets NMOCD standards for closure. BEI recommends site closure with no additional sampling or testing indicated.

Questions or comments with respect to this transmittal may be directed to myself at 632-1199. BEI appreciates the opportunity to provide services to BP.

Respectfully,
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

Attachment: Closure Documentation

BP America
GCU 169E
(H) Sec 35 – T29N – R12W
San Juan County, New Mexico
API: 30-045-24176
3RP - 441

Summary Record of Impact Remediation

May 24, 2011 Soil impacts at a depth of approximately 3' below surface grade discovered near 300 bbl stock tank while trenching. Potential source, areal extent and age unknown.

May 25 – 26, 2011 Begin investigation with backhoe. Determine impacts exceed available excavation equipment capabilities and transfer project to BP Remediation group.

February 24, 2012 Begin on-site remediation via excavation and transport of impacted soils to landfarm.

April 3, 2012 While excavating, discover free product on water table on northwest corner of wellpad. BP files verbal report to NMOCD (Aztec and Santa Fe) and submits Form C-141.

April 13, 2012 Complete on-pad soil excavation. Terminate remediation, waiting on removal of off-pad water and gas gathering lines north of wellpad before proceeding with site cleanup.

December 14, 2012 Commence off-pad remediation north of wellpad in area of removed water and gas gathering lines.

January 11, 2013 Complete removal of off-pad impacts north of wellpad.

April 2 - 5, 2013 Install groundwater monitor wells MW-1 through MW-6.

April 25, 2013 through May 14, 2015 Complete quarterly groundwater monitoring with 8 consecutive quarters of regulated parameters below closure standards.

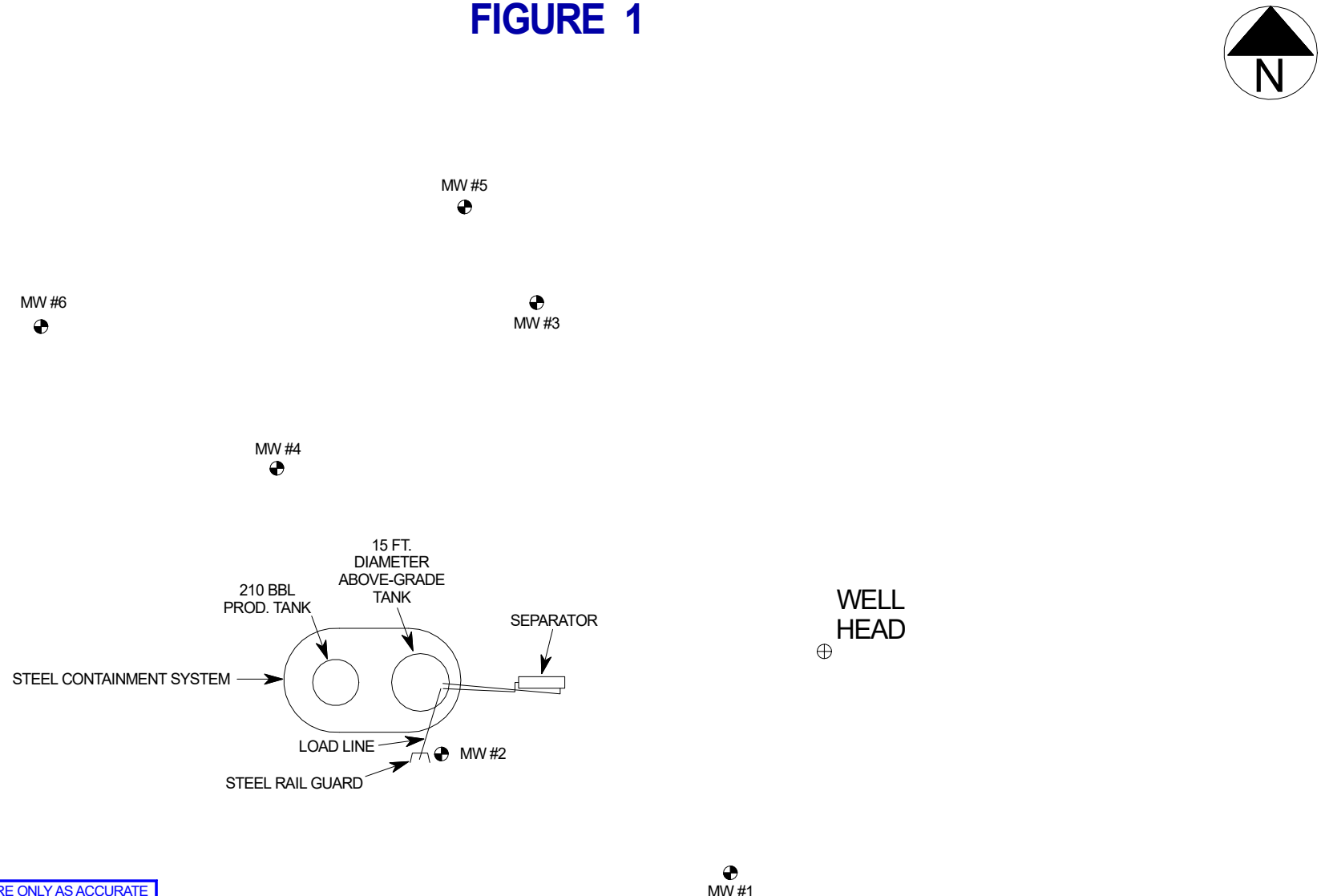
GCU 169E

Groundwater Closure Documentation

SITE FIGURES
SUMMARY BTEX TABLE
MONITOR WELL BORING LOGS
FIELD SAMPLING NOTES
LABORATORY ANALYTICAL REPORTS

Google Overhead Figure

FIGURE 1



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10° E.

BP AMERICA PRODUCTION CO.

GCU #169E

SE/4 NE/4 SEC. 35, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

B LAGG ENGINEERING, I NC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: GW MONITORING

DRAWN BY: NJV

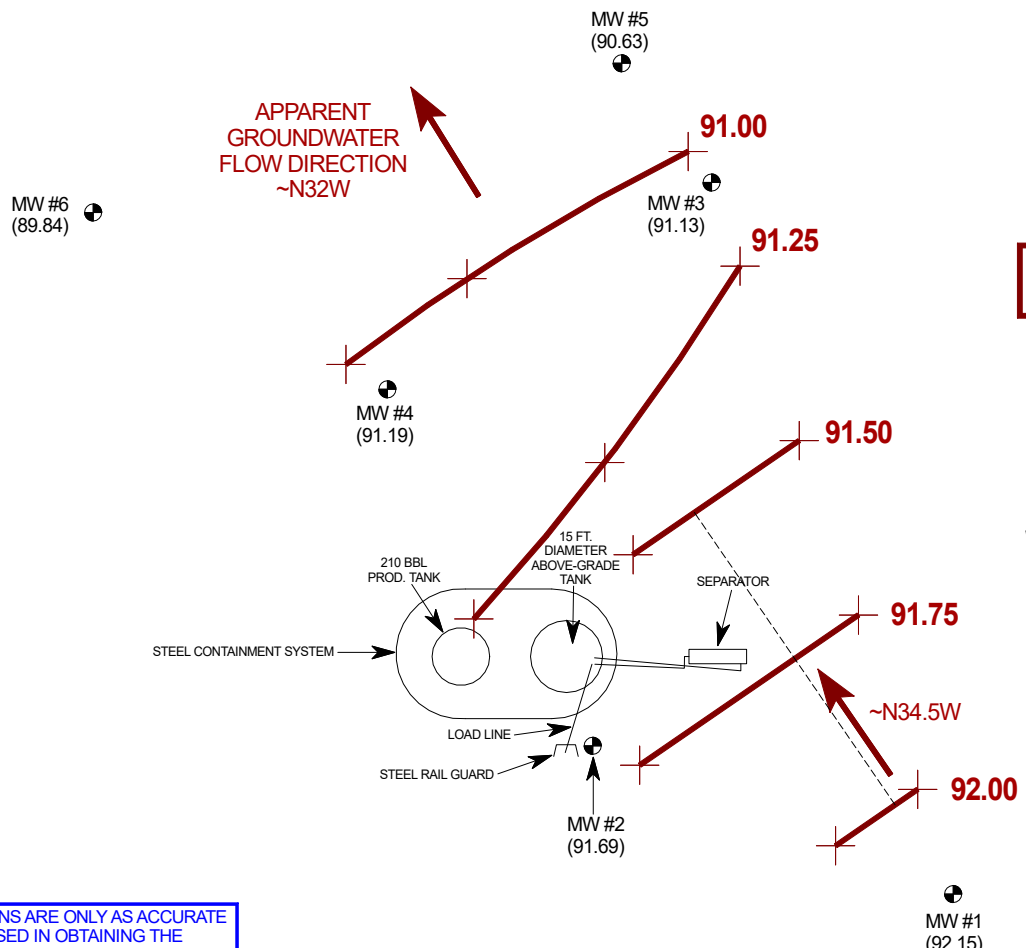
FILENAME: GCU 169E 04-25-13-GW.SKF

REVISED: 06-22-17 NJV

SITE MAP

04/13

FIGURE 2
(2nd 1/4, 2013)



	Top of Well Elevation
WELL FLANGE	(100.00)
MW #1	(102.81)
MW #2	(103.42)
MW #3	(98.17)
MW #4	(97.35)
MW #5	(96.89)
MW #6	(92.93)
MW #1 (92.15)	Groundwater Elevation as of 04/25/13.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10º E.

BP AMERICA PRODUCTION CO.

GCU #169E

SE/4 NE/4 SEC. 35, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

B LAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: GW MONITORING

DRAWN BY: NJV

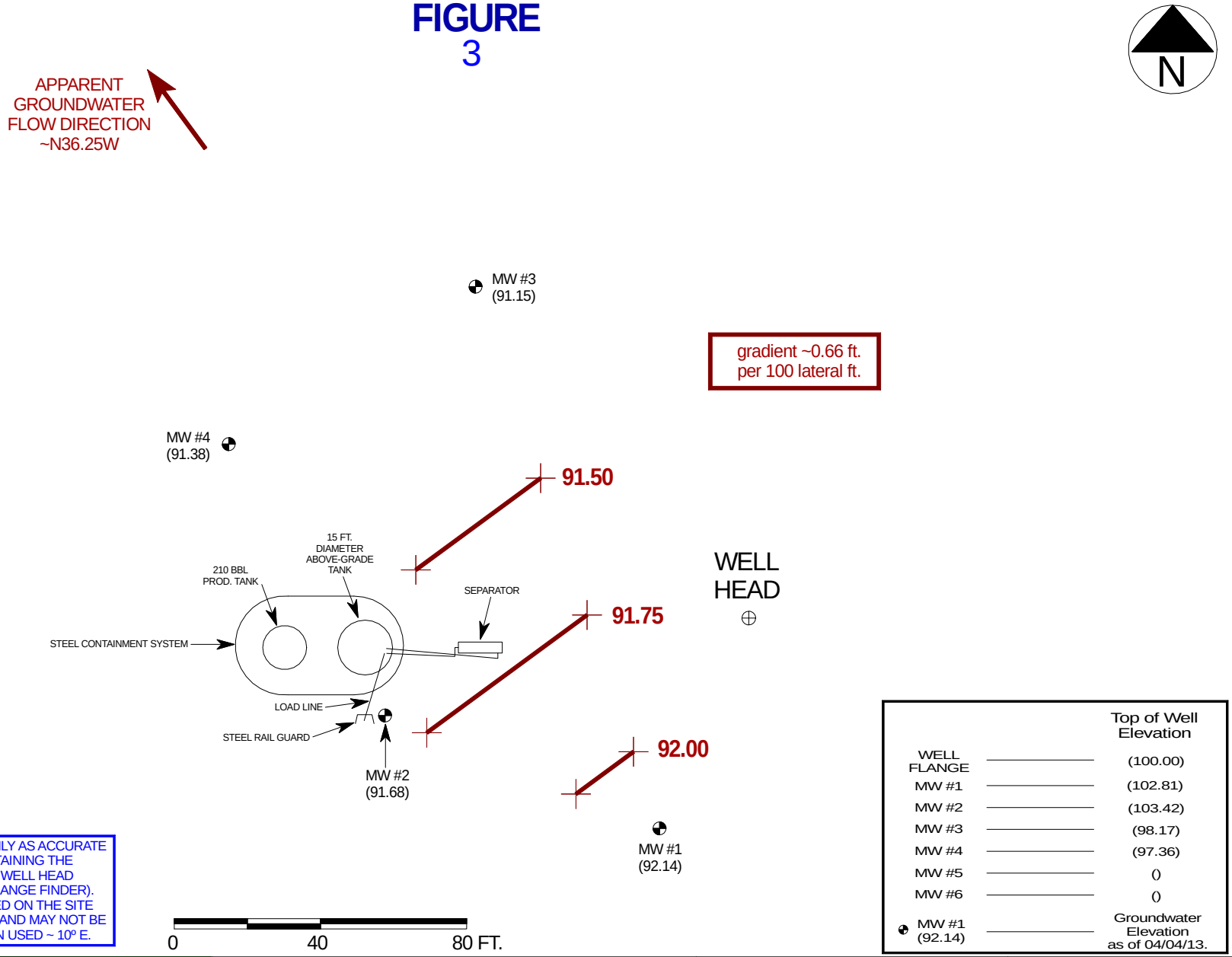
FILENAME: 04-25-13-GW.SKF

REVISED: 06-22-17 NJV

GROUNDWATER CONTOUR MAP

04/13

FIGURE 3



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10º E.

	Top of Well Elevation
WELL FLANGE	(100.00)
MW #1	(102.81)
MW #2	(103.42)
MW #3	(98.17)
MW #4	(97.36)
MW #5	()
MW #6	()
MW #1 (92.14)	Groundwater Elevation as of 04/04/13.

BP AMERICA PRODUCTION CO.

GCU #169E

SE/4 NE/4 SEC. 35, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

B LAGG ENGINEERING, I NC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: MW INSTALLATIONS

DRAWN BY: NJV

FILENAME: 04-04-13-GW.SKF

REVISED: 04-04-13 NJV

GROUNDWATER CONTOUR MAP

04/13

BP America - GCU 169E
Monitor Well Summary Analytical Data

Well ID	Sampling Date	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)
MW-1	04/25/2013	ND	ND	ND	ND
Note: Upgradient monitor well. Not resampled after initial event.					
MW-2	04/25/2013	ND	ND	ND	ND
	08/28/2013	ND	ND	ND	ND
	12/16/2013	ND	ND	ND	ND
	03/04/2014	ND	ND	ND	ND
	05/16/2014	ND	ND	ND	ND
	08/25/2014	ND	ND	ND	ND
	11/25/2014	ND	ND	ND	ND
	03/10/2015	ND	ND	ND	ND
	05/14/2015	ND	ND	ND	ND
MW-3	04/25/2013	57	ND	21	250
	08/28/2013	4.1	ND	1.4	ND
	12/16/2013	ND	ND	ND	ND
	03/04/2014	ND	ND	ND	ND
	05/16/2014	ND	ND	ND	ND
	08/25/2014	ND	ND	ND	ND
	11/25/2014	ND	ND	ND	ND
	03/10/2015	ND	ND	ND	ND
	05/14/2015	ND	ND	ND	ND
MW-4	04/25/2013	6.3	ND	4.7	ND
	08/28/2013	ND	ND	ND	ND
	12/16/2013	ND	ND	ND	ND
	03/04/2014	ND	ND	ND	ND
	05/16/2014	ND	ND	ND	ND
	08/25/2014	ND	ND	ND	ND
	11/25/2014	ND	ND	ND	ND
	03/10/2015	ND	ND	ND	ND
	05/14/2015	ND	ND	ND	ND
MW-5	04/25/2013	ND	ND	ND	ND
	08/28/2013	ND	ND	ND	ND
	12/16/2013	ND	ND	ND	ND
	03/04/2014	ND	ND	ND	ND
	05/16/2014	ND	ND	ND	ND

	08/25/2014	ND	ND	ND	ND
	11/25/2014	ND	ND	ND	ND
	03/10/2015	ND	ND	ND	ND
	05/14/2015	ND	ND	ND	ND
MW-6	04/25/2013	ND	ND	ND	ND
	08/28/2013	ND	ND	ND	ND
	12/16/2013	ND	ND	ND	ND
	03/04/2014	ND	ND	ND	ND
	05/16/2014	ND	ND	ND	ND
	08/25/2014	ND	ND	ND	ND
	11/25/2014	ND	ND	ND	ND
	03/10/2015	ND	ND	ND	2.2
	05/14/2015	ND	ND	ND	ND
NMWQCC Limits:		10	750	750	620

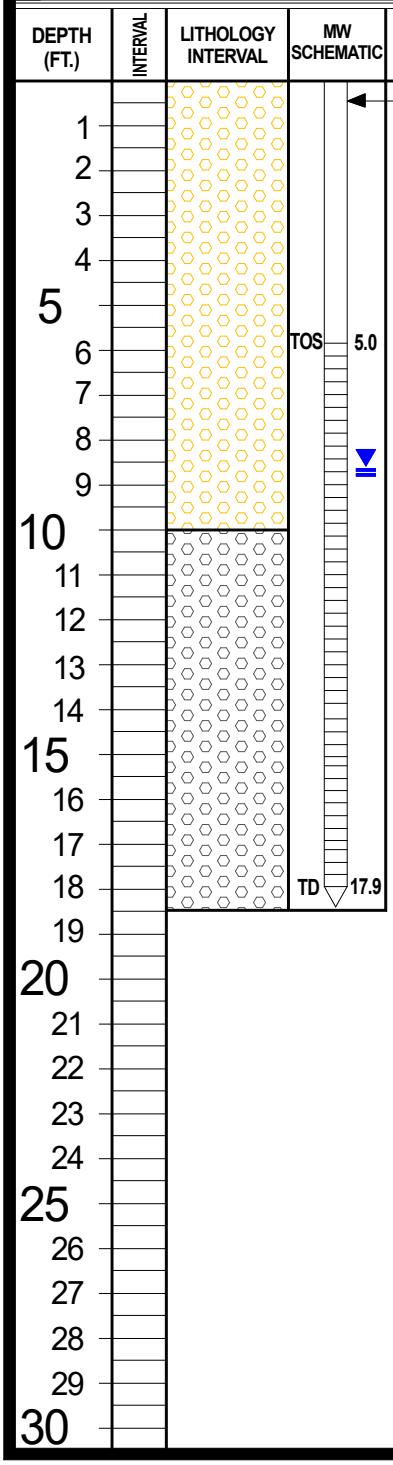
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - TUBEX SYSTEM.
BORING LOCATION:	62.5 FEET, S21.5W FROM WELL HEAD (GPS COORD.: 36.684712,-108.062530)

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	04/03/13
DATE FINISHED	04/03/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.05 FT. ABOVE GRADE.

VERY PALE TO DARK YELLOWISH ORANGE SAND & GRAVEL, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).

GROUNDWATER ~ 8.61 ft. BELOW GRADE ; MEASURED 04/25/2013.

SAME AS ABOVE EXCEPT DARK GRAY (10.0 - 18.5 FT. BELOW GRADE).

NOTES: - SAND & GRAVEL.

TOS - Top of screen interval.

TD - Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from 2.05 ft. above grade to 2.90 ft. below grade, 0.010 slotted screen between 2.90 to 17.90 ft. below grade, sand packed annular to 1.0 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING:	DATE:	DWN BY:
GCU 169E MW1-BH1. SKF	06/22/17	NJV

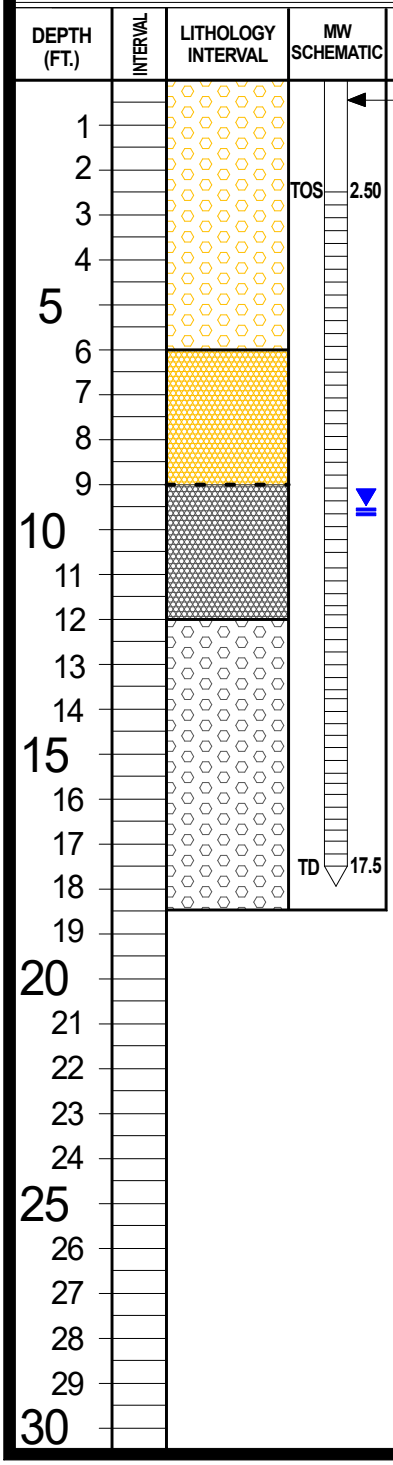
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 2

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - TUBEX SYSTEM.
BORING LOCATION:	100 FEET, S72.5W FROM WELL HEAD (GPS COORD.: 36.684788,-108.062776)

BORING #.....	BH - 2
MW #.....	2
PAGE #.....	2
DATE STARTED	04/03/13
DATE FINISHED	04/03/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.50 FT. ABOVE GRADE.

VERY PALE TO DARK YELLOWISH ORANGE IMPORTED SAND & GRAVEL, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 6.0 FT. BELOW GRADE).

VERY PALE TO DARK YELLOWISH ORANGE SAND, NON COHESIVE, DRY TO MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (6.0 - 9.0 FT. BELOW GRADE).

GROUNDWATER ~ 9.23 ft. BELOW GRADE ; MEASURED 04/25/2013.

SAME AS ABOVE EXCEPT OLIVE TO DARK GRAY, WET TO SATURATED (9.0 - 12.0 FT. BELOW GRADE).

DARK GRAY SAND & GRAVEL, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (12.0 - 18.5 FT.BELOW GRADE).

NOTES: - SAND & GRAVEL. - SAND.

TOS - Top of screen interval.

- Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from 2.50 ft. above grade to 2.50 ft. below grade, 0.010 slotted screen between 2.50 to 17.50 ft. below grade, sand packed annular to 1.5 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING: GCU 169E MW2-BH2. SKF | DATE: 06/22/17 | DWN BY: NJV

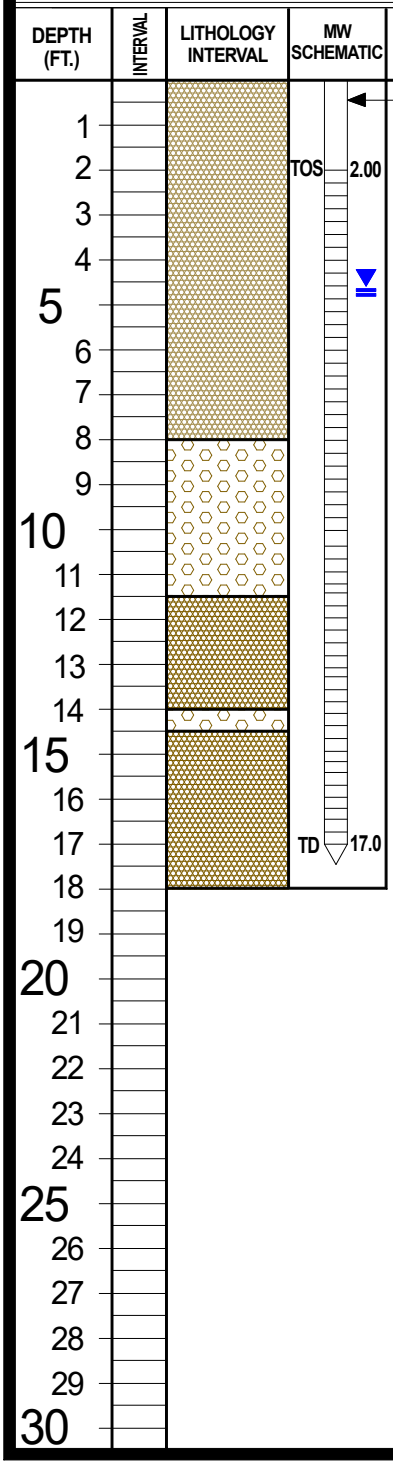
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - TUBEX SYSTEM.
BORING LOCATION:	116.5 FEET, N40.5W FROM WELL HEAD (GPS COORD.: 36.685113,-108.062710)

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	04/04/13
DATE FINISHED	04/04/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.40 FT. ABOVE GRADE.

PALE YELLOWISH BROWN IMPORTED SAND, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 8.0 FT. BELOW GRADE).

GROUNDWATER ~ 4.64 ft. BELOW GRADE ; MEASURED 04/25/2013.

DARK YELLOWISH BROWN SAND & GRAVEL, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (8.0 - 11.5 FT. BELOW GRADE).

DARK YELLOWISH BROWN SAND, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (11.5 - 14.0 FT. BELOW GRADE).

SAME AS 8.0 - 11.5 FT. INTERVAL (14.0 - 14.5 FT. BELOW GRADE).

SAME AS 11.5 - 14.0 FT. INTERVAL (14.5 - 18.0 FT. BELOW GRADE).

NOTES: - SAND & GRAVEL. - SAND.

TOS - Top of screen interval.

TD - Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from 2.40 ft. above grade to 2.00 ft. below grade, 0.010 slotted screen between 2.00 to 17.00 ft. below grade, sand packed annular to 1.0 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING: GCU 169E MW3-BH3. SKF | DATE: 06/22/17 | DWN BY: NJV

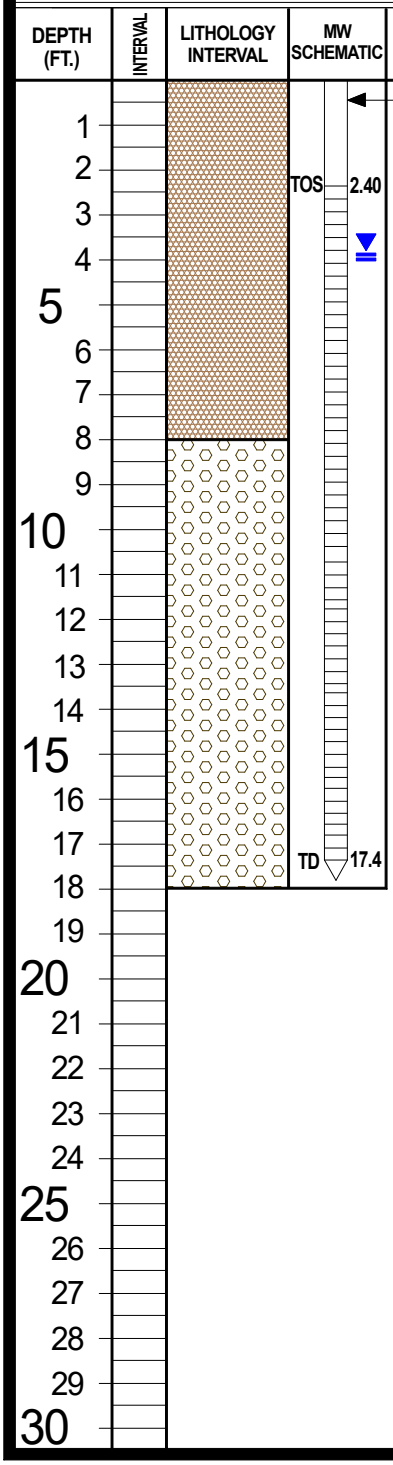
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 4

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - HOLLOW STEM AUGERS.
BORING LOCATION:	149.25 FEET, N73.5W FROM WELL HEAD (GPS COORD.: 36.684986,-108.062939)

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	4
DATE STARTED	04/04/13
DATE FINISHED	04/04/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROXIMATELY 2.30 FT. ABOVE GRADE.

GROUNDWATER ~ 3.86 ft. BELOW GRADE ; MEASURED 04/25/2013.

PALE YELLOWISH BROWN IMPORTED SAND, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 8.0 FT. BELOW GRADE).

DARK YELLOWISH BROWN SAND & GRAVEL, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (8.0 - 18.0 FT. BELOW GRADE).

NOTES: - SAND & GRAVEL. - SAND.

TOS - Top of screen interval.

- Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from 2.30 ft. above grade to 2.40 ft. below grade, 0.010 slotted screen between 2.40 to 17.40 ft. below grade, sand packed annular to 1.0 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING:	DATE:	DWN BY:
GCU 169E MW4-BH4. SKF	06/22/17	NJV

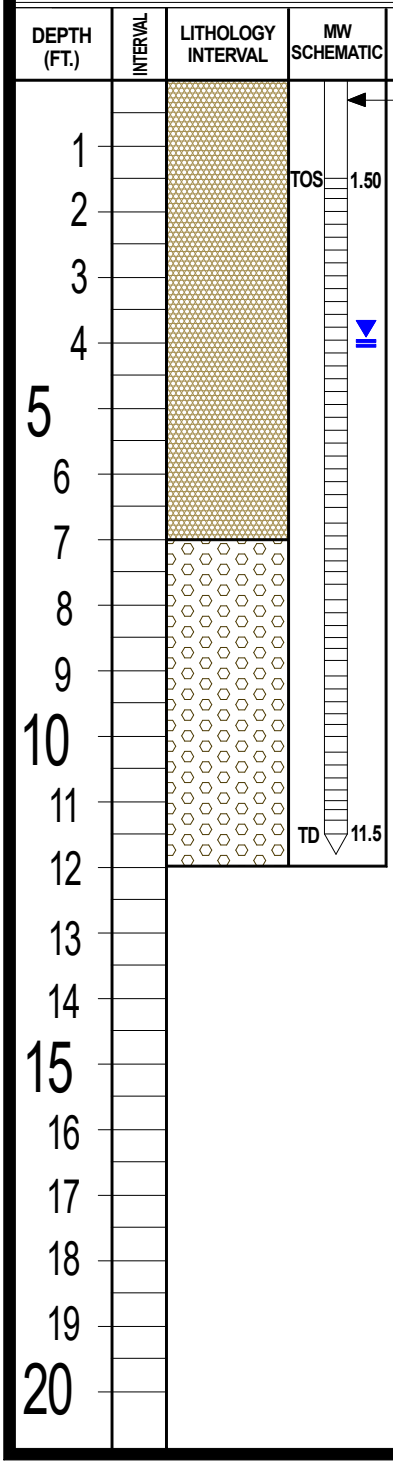
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 5

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - HOLLOW STEM AUGERS.
BORING LOCATION:	147.5 FEET, N40W FROM WELL HEAD (GPS COORD.: 36.685180,-108.062774)

BORING #.....	BH - 5
MW #.....	5
PAGE #.....	5
DATE STARTED	04/05/13
DATE FINISHED	04/05/13
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.30 FT. ABOVE GRADE.

PALE YELLOWISH BROWN SAND, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 7.0 FT. BELOW GRADE).

GROUNDWATER ~ 3.96 ft. BELOW GRADE ; MEASURED 04/25/2013.

DARK YELLOWISH BROWN SAND & GRAVEL, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (7.0 - 12.0 FT. BELOW GRADE).

NOTES: - SAND. - SAND & GRAVEL.

TOS - Top of screen interval.

- Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from 2.30 ft. above grade to 1.50 ft. below grade, 0.010 slotted screen between 1.50 to 11.50 ft. below grade, sand packed annular to 0.50 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING: GCU 169E MW5-BH5. SKF | DATE: 06/23/17 | DWN BY: NJV

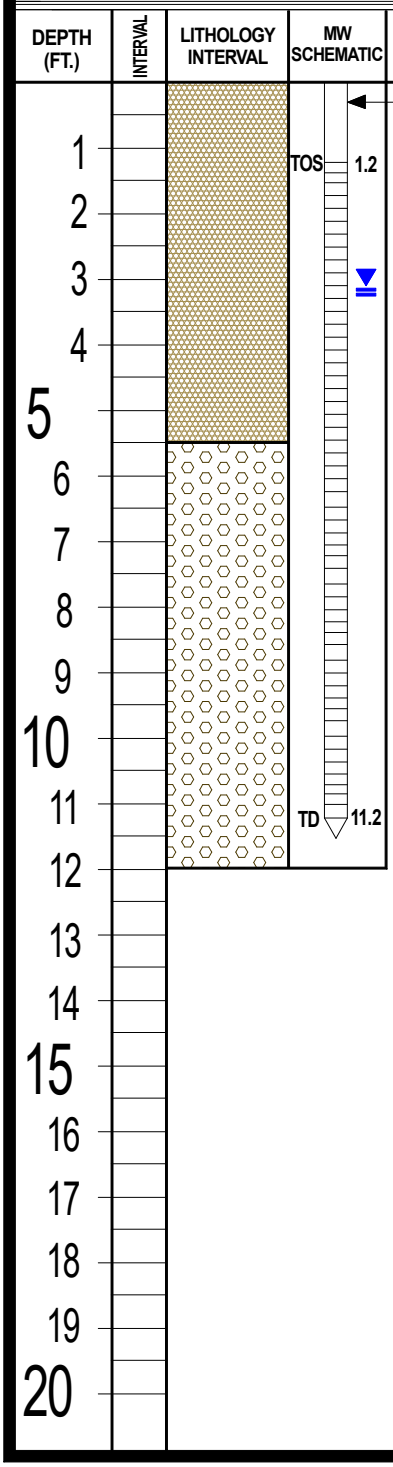
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 6

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU #169E API #: 3004524176 UNIT H, SEC. 35, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK FIELD SERVICES
EQUIPMENT USED:	MOBILE DRILL RIG (CME 95) - HOLLOW STEM AUGERS.
BORING LOCATION:	222.5 FEET, N69W FROM WELL HEAD (GPS COORD.: 36.685087,-108.063160)

BORING #.....	BH - 6
MW #.....	6
PAGE #.....	6
DATE STARTED	04/05/13
DATE FINISHED	04/05/13
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROXIMATELY AT GRADE.

PALE YELLOWISH BROWN SAND, NON COHESIVE, DRY TO SATURATED, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 5.5 FT. BELOW GRADE).

GROUNDWATER ~ 3.09 ft. BELOW GRADE ; MEASURED 04/25/2013.

DARK YELLOWISH BROWN SAND & GRAVEL, NON COHESIVE, SATURATED, LOOSE TO FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (5.5 - 12.0 FT. BELOW GRADE).

NOTES: - SAND. - SAND & GRAVEL.

TOS - Top of screen interval.

- Total depth/bottom extent of monitor well.

GPS coordinates obtained from Google Earth (Imagery date: 3/15/2015).

Monitor well consist of 2 inch PVC piping - casing from grade to 1.20 ft. below grade, 0.010 slotted screen between 1.20 to 11.20 ft. below grade, sand packed annular to 0.50 ft. below grade, bentonite grout remaining to grade. Steel well protector with locking hinged lid encompass exposed casing, slip capped top end of casing, & secured with padlock.

DRAWING: GCU 169E MW6-BH6. SKF | DATE: 06/23/17 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : April 25, 2013

Filename : GCU 169E mw log 04-25-13.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.15	10.66	19.94	0955	7.16	2,000	14.6	4.50
2	103.42	91.69	11.73	20.00	1210	7.19	2,100	14.7	4.00
3	98.17	91.13	7.04	19.40	1340	6.91	2,700	14.1	6.00
4	97.35	91.19	6.16	19.69	1255	6.88	2,300	14.3	6.75
5	96.89	90.63	6.26	13.78	1125	6.88	2,600	14.4	3.75
6	92.93	89.84	3.09	11.17	1040	7.17	2,400	14.8	4.00

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 04/25/13 | 0700

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Monitor well top survey conducted on 4/4/13 & 4/15/13. Installed MW #1 & #2 on 4/3/13, #3 & #4 on 4/4/13, #5 & #6 on 4/5/13. All MW's initial development completed on 4/23/13 . Excellent recovery in MW #1 thru #4, fair to good in #5 & #6.

Used submersible pump and vinyl clear tubing for purging & sampling . Collected samples from all MW's for BTEX per US EPA Method 8021B & general chemistry parameters.

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	9:15 AM	temp	52 F
off-site	1:45 PM	temp	70 F
sky cond.		Mostly sunny	
wind speed	0 - 10	direct.	E, SE, NW

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 28, 2013

Filename : GCU 169E mw log 08-28-13.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	91.84	10.97	19.94	-	-	-	-	-
2	103.42	91.36	12.06	20.00	1330	7.46	1,800	20.7	3.75
3	98.17	90.74	7.43	19.40	1620	7.36	1,900	20.6	6.00
4	97.35	90.86	6.49	19.69	1540	7.45	1,800	19.2	6.50
5	96.89	90.55	6.34	13.78	1410	7.41	1,600	19.9	3.75
6	92.93	89.32	3.61	11.17	1455	7.62	1,700	21.2	3.75

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 08/26/13 | 0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Monitor well top survey conducted on 4/4/13 & 4/15/13. Installed MW #1 & #2 on 4/3/13, #3 & #4 on 4/4/13, #5 & #6 on 4/5/13. All MW's initial development completed on 4/23/13 . Excellent recovery in MW #1 thru #4, fair to good in #5 & #6. Collected samples for BTEX per US EPA Method 8021B from MW's # 2 thru # 6 . Purged wells using 2 inch submersible electrical pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	12:45 PM	temp	80 F
off-site	3:45 PM	temp	84 F
sky cond.		Mostly cloudy	
wind speed	0 - 10	direct.	E - SSE

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 16, 2013

Filename : GCU 169E mw log 12-16-13.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.33	10.48	19.94	-	-	-	-	-
2	103.42	91.87	11.55	20.00	1420	7.22	1,100	15.1	4.25
3	98.17	91.28	6.89	19.40	1615	7.44	1,500	14.7	6.25
4	97.35	91.43	5.92	19.69	1515	7.29	1,300	14.3	6.75
5	96.89	90.97	5.92	13.78	1320	7.10	1,300	15.4	3.75
6	92.93	89.96	2.97	11.17	1225	7.13	1,200	11.9	4.00

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	12/16/13	0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Monitor well top survey conducted on 4/4/13 & 4/15/13. Installed MW #1 & #2 on 4/3/13, #3 & #4 on 4/4/13, #5 & #6 on 4/5/13. All MW's initial development completed on 4/23/13 . Excellent recovery in MW #1 thru #4, fair to good in #5 & #6. Collected samples for BTEX per US EPA Method 8021B from MW's # 2 thru # 6 . Purged wells using 2 inch submersible electrical pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	11:30 AM	temp	33 F
off-site	4:30 PM	temp	39 F
sky cond.		Mostly sunny	
wind speed	0 - 10	direct.	ESE - WSW

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : March 4, 2014

Filename : GCU 169E mw log 03-04-14.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.44	10.37	19.94	-	-	-	-	-
2	103.42	92.01	11.41	20.00	1140	7.30	1,900	12.0	4.25
3	98.17	91.39	6.78	19.40	1335	7.23	2,000	12.0	6.25
4	97.35	91.55	5.80	19.69	1235	7.33	1,800	12.4	6.75
5	96.89	91.05	5.84	13.78	1040	7.29	1,800	12.4	4.00
6	92.93	90.09	2.84	11.17	0935	7.34	1,900	9.7	4.00

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	02/24/14	0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #1 thru #4, fair to good in #5 & #6. Collected samples for BTEX per US EPA Method 8021B from MW's # 2 thru # 6 . Purged wells using 2 inch submersible electrical pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	8:45 AM	temp	38 F
off-site	1:45 PM	temp	52 F
sky cond.		Cloudy	
wind speed	0 - 10	direct.	E - SE

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 16, 2014

Filename : GCU 169E mw log 05-16-14.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.19	10.62	19.94	-	-	-	-	-
2	103.42	91.77	11.65	20.00	1140	7.32	1,400	15.7	4.00
3	98.17	91.14	7.03	19.40	1305	7.19	1,600	16.0	6.00
4	97.35	91.31	6.04	19.69	1225	7.24	1,300	16.4	6.75
5	96.89	90.80	6.09	13.78	1055	7.29	1,400	15.8	3.75
6	92.93	89.80	3.13	11.17	1015	7.43	1,100	15.1	4.00

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 05/16/14 | 0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells sampled. No apparent sheen observed in any wells purged, light to murky brown in appearance. Purged well using 2 inch submersible electric pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing . Collected samples from all wells except MW # 1 for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	**9:20 AM**	temp	**57 F**
off-site	**1:15 PM**	temp	**79 F**
sky cond.		**Sunny**	
wind speed	**5 - 20**	direct.	**ESE - WNW**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 25, 2014

Filename : GCU 169E mw log 08-25-14.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	91.83	10.98	19.94	-	-	-	-	-
2	103.42	91.12	12.30	20.00	1245	7.24	1,300	19.7	3.75
3	98.17	90.80	7.37	19.40	1405	7.10	1,300	20.5	6.00
4	97.35	90.94	6.41	19.69	1330	7.21	1,200	19.1	6.50
5	96.89	90.60	6.29	13.78	1155	7.10	1,200	19.5	3.75
6	92.93	89.48	3.45	11.17	1110	7.28	1,100	19.0	3.75

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 08/25/14 | 0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells sampled. No apparent sheen observed in any wells purged, light to murky brown in appearance. Purged well using 2 inch submersible electric pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing . Collected samples from all wells except MW # 1 for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	**10:30 AM**	temp	**76 F**
off-site	**2:30 PM**	temp	**84 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**ESE - W**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : November 25, 2014

Filename : GCU 169E mw log 11-25-14.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.29	10.52	19.94	-	-	-	-	-
2	103.42	91.86	11.56	20.00	1155	7.39	1,400	16.5	4.25
3	98.17	91.30	6.87	19.40	1350	7.27	1,400	16.4	6.25
4	97.35	91.43	5.92	19.69	1255	7.39	1,200	15.1	6.75
5	96.89	91.05	5.84	13.78	1050	7.36	1,200	16.5	4.00
6	92.93	90.02	2.91	11.17	0955	7.53	1,200	13.8	4.00

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 11/24/14 | 0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells sampled. No apparent sheen observed in any wells purged, light to murky brown in appearance. Purged well using 2 inch submersible electric pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing . Collected samples from all wells except MW # 1 for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	**9:00 AM**	temp	**26 F**
off-site	**2:00 PM**	temp	**45 F**
sky cond.		**Sunny**	
wind speed	**0 - 25**	direct.	**SSW-WNW**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : March 10, 2015

Filename : GCU 169E mw log 2015-03-10.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.57	10.24	19.94	-	-	-	-	-
2	103.42	92.17	11.25	20.00	1225	6.73	2,300	13.8	2.50
3	98.17	91.59	6.58	19.40	1420	6.78	2,100	13.7	3.75
4	97.35	91.68	5.67	19.69	1325	7.08	1,700	13.9	4.50
5	96.89	93.25	3.64	13.78	1120	7.06	1,900	13.9	2.50
6	92.93	90.29	2.64	11.17	1025	7.05	2,000	10.4	3.00

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	03/10/15	0630

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells sampled. No apparent sheen observed in any wells purged, light to murky brown in appearance. Purged well using 2 inch submersible electric pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing . Collected samples from all wells except MW # 1 for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	**9:30 AM**	temp	**36 F**
off-site	**2:30 PM**	temp	**60 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**E - SSW**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 169E
UNIT H, SEC. 35, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 14, 2015

Filename : GCU 169E mw log 2015-05-14.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.81	92.21	10.60	19.94	-	-	-	-	-
2	103.42	91.82	11.60	20.00	1230	6.97	2,600	14.6	3.00
3	98.17	91.22	6.95	19.40	1430	7.01	2,100	15.5	4.50
4	97.35	91.35	6.00	19.69	1330	7.09	1,700	14.8	4.50
5	96.89	90.92	5.97	13.78	1130	7.05	1,900	15.1	2.75
6	92.93	89.93	3.00	11.17	1030	6.98	1,900	14.9	3.00

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00 | 2,800

DATE & TIME = 05/11/15 | 0600

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells sampled. No apparent sheen observed in any wells purged, light to murky brown in appearance. Purged well using 2 inch submersible electric pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing . Collected samples from all wells except MW # 1 for BTEX per US EPA Method 8021B .

Top of casing MW # 1 ~ 2.05 ft. , MW # 2 ~ 2.50 ft. , MW # 3 ~ 2.40 ft. , MW # 4 ~ 2.30 ft. , MW # 5 ~ 2.30 ft. above grade, MW # 6 ~ at grade .

on-site	**9:30 AM**	temp	**57 F**
off-site	**2:30 PM**	temp	**72 F**
sky cond.		**Cloudy**	
wind speed	**10 - 15**	direct.	**E - SSE**

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

March 13, 2015

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU #169E OrderNo.: 1503484

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/11/2015 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: Blagg Engineering
Client Sample ID: MW #2
Project: GCU #169E
Collection Date: 3/10/2015 12:25:00 PM
Lab ID: 1503484-001
Matrix: AQUEOUS
Received Date: 3/11/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/12/2015 4:52:41 PM	R24802
Toluene	ND	1.0		µg/L	1	3/12/2015 4:52:41 PM	R24802
Ethylbenzene	ND	1.0		µg/L	1	3/12/2015 4:52:41 PM	R24802
Xylenes, Total	ND	2.0		µg/L	1	3/12/2015 4:52:41 PM	R24802
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/12/2015 4:52:41 PM	R24802

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: Blagg Engineering
Client Sample ID: MW #3
Project: GCU #169E
Collection Date: 3/10/2015 2:20:00 PM
Lab ID: 1503484-002
Matrix: AQUEOUS
Received Date: 3/11/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/12/2015 5:21:51 PM	R24802
Toluene	ND	1.0		µg/L	1	3/12/2015 5:21:51 PM	R24802
Ethylbenzene	ND	1.0		µg/L	1	3/12/2015 5:21:51 PM	R24802
Xylenes, Total	ND	2.0		µg/L	1	3/12/2015 5:21:51 PM	R24802
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/12/2015 5:21:51 PM	R24802

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: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #169E
Collection Date: 3/10/2015 1:25:00 PM
Lab ID: 1503484-003
Matrix: AQUEOUS
Received Date: 3/11/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/12/2015 7:47:39 PM	R24802
Toluene	ND	1.0		µg/L	1	3/12/2015 7:47:39 PM	R24802
Ethylbenzene	ND	1.0		µg/L	1	3/12/2015 7:47:39 PM	R24802
Xylenes, Total	ND	2.0		µg/L	1	3/12/2015 7:47:39 PM	R24802
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	3/12/2015 7:47:39 PM	R24802

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: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #169E
Collection Date: 3/10/2015 11:20:00 AM
Lab ID: 1503484-004
Matrix: AQUEOUS
Received Date: 3/11/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/12/2015 8:16:49 PM	R24802
Toluene	ND	1.0		µg/L	1	3/12/2015 8:16:49 PM	R24802
Ethylbenzene	ND	1.0		µg/L	1	3/12/2015 8:16:49 PM	R24802
Xylenes, Total	ND	2.0		µg/L	1	3/12/2015 8:16:49 PM	R24802
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	3/12/2015 8:16:49 PM	R24802

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: Blagg Engineering
Client Sample ID: MW #6
Project: GCU #169E
Collection Date: 3/10/2015 10:25:00 AM
Lab ID: 1503484-005
Matrix: AQUEOUS
Received Date: 3/11/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/12/2015 8:45:58 PM	R24802
Toluene	ND	1.0		µg/L	1	3/12/2015 8:45:58 PM	R24802
Ethylbenzene	ND	1.0		µg/L	1	3/12/2015 8:45:58 PM	R24802
Xylenes, Total	2.2	2.0		µg/L	1	3/12/2015 8:45:58 PM	R24802
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/12/2015 8:45:58 PM	R24802

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#: **1503484**

13-Mar-15

Client: Blagg Engineering

Project: GCU #169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R24802**	RunNo:	**24802**					
Prep Date:		Analysis Date:	**3/12/2015**	SeqNo:	**730484**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		112	80	120			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R24802**	RunNo:	**24802**					
Prep Date:		Analysis Date:	**3/12/2015**	SeqNo:	**730485**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	63	2.0	60.00	0	105	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		120	80	120			S

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		

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: BLAGG Work Order Number: 1503484 RcptNo: 1

Received by/date: RM 03/11/15

Logged By: Ashley Gallegos 3/11/2015 8:10:00 AM

Completed By: Ashley Gallegos 3/11/2015 3:40:40 PM

Reviewed By: IO 03/12/15

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?	Courier		

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	2.1	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1503484	Analysis Request: BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample
3/10/15	1225	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
3/10/15	1420	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	✓													✓	
3/10/15	1325	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	✓													✓	
3/10/15	1120	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	✓													✓	
3/10/15	1025	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	✓													✓	

Date	Time	Relinquished by:	Received by:	Date	Time
3/10/15	1609			3/10/15	1605
3/10/15	1840			03/11/15	0810

Remarks:

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Paykey: ZEVH01REME

If necessary, samples submitted to Hall Environmental may be subcontracted to

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 22, 2014

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU # 169E OrderNo.: 1405841

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/20/2014 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: Blagg Engineering
Client Sample ID: MW # 2
Project: GCU # 169E
Collection Date: 5/16/2014 11:40:00 AM
Lab ID: 1405841-001
Matrix: AQUEOUS
Received Date: 5/20/2014 10:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/20/2014 6:15:09 PM	R18747
Toluene	ND	1.0		µg/L	1	5/20/2014 6:15:09 PM	R18747
Ethylbenzene	ND	1.0		µg/L	1	5/20/2014 6:15:09 PM	R18747
Xylenes, Total	ND	2.0		µg/L	1	5/20/2014 6:15:09 PM	R18747
Surr: 4-Bromofluorobenzene	101	82.9-139		%REC	1	5/20/2014 6:15:09 PM	R18747

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3
Project: GCU # 169E
Collection Date: 5/16/2014 1:05:00 PM
Lab ID: 1405841-002
Matrix: AQUEOUS
Received Date: 5/20/2014 10:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/20/2014 6:45:29 PM	R18747
Toluene	ND	1.0		µg/L	1	5/20/2014 6:45:29 PM	R18747
Ethylbenzene	ND	1.0		µg/L	1	5/20/2014 6:45:29 PM	R18747
Xylenes, Total	ND	2.0		µg/L	1	5/20/2014 6:45:29 PM	R18747
Surr: 4-Bromofluorobenzene	104	82.9-139		%REC	1	5/20/2014 6:45:29 PM	R18747

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 169E
Collection Date: 5/16/2014 12:25:00 PM
Lab ID: 1405841-003
Matrix: AQUEOUS
Received Date: 5/20/2014 10:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/20/2014 7:15:41 PM	R18747
Toluene	ND	1.0		µg/L	1	5/20/2014 7:15:41 PM	R18747
Ethylbenzene	ND	1.0		µg/L	1	5/20/2014 7:15:41 PM	R18747
Xylenes, Total	ND	2.0		µg/L	1	5/20/2014 7:15:41 PM	R18747
Surr: 4-Bromofluorobenzene	93.0	82.9-139		%REC	1	5/20/2014 7:15:41 PM	R18747

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU # 169E
Collection Date: 5/16/2014 10:55:00 AM
Lab ID: 1405841-004
Matrix: AQUEOUS
Received Date: 5/20/2014 10:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/20/2014 7:45:54 PM	R18747
Toluene	ND	1.0		µg/L	1	5/20/2014 7:45:54 PM	R18747
Ethylbenzene	ND	1.0		µg/L	1	5/20/2014 7:45:54 PM	R18747
Xylenes, Total	ND	2.0		µg/L	1	5/20/2014 7:45:54 PM	R18747
Surr: 4-Bromofluorobenzene	94.1	82.9-139		%REC	1	5/20/2014 7:45:54 PM	R18747

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 6
Project: GCU # 169E
Collection Date: 5/16/2014 10:15:00 AM
Lab ID: 1405841-005
Matrix: AQUEOUS
Received Date: 5/20/2014 10:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/20/2014 8:16:03 PM	R18747
Toluene	ND	1.0		µg/L	1	5/20/2014 8:16:03 PM	R18747
Ethylbenzene	ND	1.0		µg/L	1	5/20/2014 8:16:03 PM	R18747
Xylenes, Total	ND	2.0		µg/L	1	5/20/2014 8:16:03 PM	R18747
Surr: 4-Bromofluorobenzene	89.6	82.9-139		%REC	1	5/20/2014 8:16:03 PM	R18747

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 greater than 2.
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#: **1405841**

22-May-14

Client: Blagg Engineering

Project: GCU # 169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R18747**	RunNo:	**18747**					
Prep Date:		Analysis Date:	**5/20/2014**	SeqNo:	**541435**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.6	82.9	139			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R18747**	RunNo:	**18747**					
Prep Date:		Analysis Date:	**5/20/2014**	SeqNo:	**541437**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	80	120			
Toluene	20	1.0	20.00	0	100	80	120			
Ethylbenzene	20	1.0	20.00	0	99.1	80	120			
Xylenes, Total	61	2.0	60.00	0	102	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		97.7	82.9	139			

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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: **BLAGG** Work Order Number: **1405841** RcptNo: **1**

Received by/date: AG 05/20/14

Logged By: **Celina Sessa** **5/20/2014 10:06:00 AM** Celina Sessa

Completed By: **Celina Sessa** **5/20/2014 11:01:38 AM** Celina Sessa

Reviewed By: 05/20/14

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?	Courier		

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	1.8	Good	Yes			

Chain of Custody Record

Client:	BLAGG ENGR. / BP AMERICA
Mailing Address:	P.O. BOX 87
	BLOOMFIELD, NM 87413
Phone #:	(505) 632-1199
email or Fax#:	
QA/QC Package:	☑ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other ☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: **GCU # 169E**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1405841	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (**filtered**)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample
5/16/14	1140	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
5/16/14	1305	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	✓													✓	
5/16/14	1225	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	✓													✓	
5/16/14	1055	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	✓													✓	
5/16/14	1015	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	✓													✓	

Date: 5/19/14	Time: 1645	Relinquished by:	Received by: Christine Walker	Date 5/19/14	Time 1645
Date: 5/19/14	Time: 1730	Relinquished by: Christine Walker	Received by:	Date 05/20/14	Time 10:00

Remarks:

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Find Purchase Order in email from BP.

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

March 12, 2014

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU # 169E OrderNo.: 1403157

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/5/2014 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

Analytical Report
Lab Order **1403157**
Date Reported: **3/12/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 2
Project: GCU # 169E
Collection Date: 3/4/2014 11:40:00 AM
Lab ID: 1403157-001
Matrix: AQUEOUS
Received Date: 3/5/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	1.0		µg/L	1	3/10/2014 5:05:33 PM	R17212
Toluene	ND	1.0		µg/L	1	3/10/2014 5:05:33 PM	R17212
Ethylbenzene	ND	1.0		µg/L	1	3/10/2014 5:05:33 PM	R17212
Xylenes, Total	ND	2.0		µg/L	1	3/10/2014 5:05:33 PM	R17212
Surr: 4-Bromofluorobenzene	109	82.9-139		%REC	1	3/10/2014 5:05:33 PM	R17212

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3
Project: GCU # 169E
Collection Date: 3/4/2014 1:35:00 PM
Lab ID: 1403157-002
Matrix: AQUEOUS
Received Date: 3/5/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	1.0		µg/L	1	3/10/2014 5:35:51 PM	R17212
Toluene	ND	1.0		µg/L	1	3/10/2014 5:35:51 PM	R17212
Ethylbenzene	ND	1.0		µg/L	1	3/10/2014 5:35:51 PM	R17212
Xylenes, Total	ND	2.0		µg/L	1	3/10/2014 5:35:51 PM	R17212
Surr: 4-Bromofluorobenzene	103	82.9-139		%REC	1	3/10/2014 5:35:51 PM	R17212

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 169E
Collection Date: 3/4/2014 12:35:00 PM
Lab ID: 1403157-003
Matrix: AQUEOUS
Received Date: 3/5/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	1.0		µg/L	1	3/10/2014 6:05:56 PM	R17212
Toluene	ND	1.0		µg/L	1	3/10/2014 6:05:56 PM	R17212
Ethylbenzene	ND	1.0		µg/L	1	3/10/2014 6:05:56 PM	R17212
Xylenes, Total	ND	2.0		µg/L	1	3/10/2014 6:05:56 PM	R17212
Surr: 4-Bromofluorobenzene	103	82.9-139		%REC	1	3/10/2014 6:05:56 PM	R17212

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU # 169E
Collection Date: 3/4/2014 10:40:00 AM
Lab ID: 1403157-004
Matrix: AQUEOUS
Received Date: 3/5/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	1.0		µg/L	1	3/10/2014 6:36:07 PM	R17212
Toluene	ND	1.0		µg/L	1	3/10/2014 6:36:07 PM	R17212
Ethylbenzene	ND	1.0		µg/L	1	3/10/2014 6:36:07 PM	R17212
Xylenes, Total	ND	2.0		µg/L	1	3/10/2014 6:36:07 PM	R17212
Surr: 4-Bromofluorobenzene	102	82.9-139		%REC	1	3/10/2014 6:36:07 PM	R17212

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 6
Project: GCU # 169E
Collection Date: 3/4/2014 9:35:00 AM
Lab ID: 1403157-005
Matrix: AQUEOUS
Received Date: 3/5/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JMP**	
Benzene	ND	1.0		µg/L	1	3/10/2014 9:06:54 PM	R17212
Toluene	ND	1.0		µg/L	1	3/10/2014 9:06:54 PM	R17212
Ethylbenzene	ND	1.0		µg/L	1	3/10/2014 9:06:54 PM	R17212
Xylenes, Total	ND	2.0		µg/L	1	3/10/2014 9:06:54 PM	R17212
Surr: 4-Bromofluorobenzene	104	82.9-139		%REC	1	3/10/2014 9:06:54 PM	R17212

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 greater than 2.
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#: **1403157**

12-Mar-14

Client: Blagg Engineering

Project: GCU # 169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R17212**	RunNo:	**17212**					
Prep Date:		Analysis Date:	**3/10/2014**	SeqNo:	**495257**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	82.9	139			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R17212**	RunNo:	**17212**					
Prep Date:		Analysis Date:	**3/10/2014**	SeqNo:	**495258**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.3	80	120			
Toluene	19	1.0	20.00	0	97.4	80	120			
Ethylbenzene	20	1.0	20.00	0	98.4	80	120			
Xylenes, Total	59	2.0	60.00	0	98.3	80	120			
Surr: 4-Bromofluorobenzene	18		20.00		89.2	82.9	139			

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 greater than 2.
- RL Reporting Detection Limit

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: BLAGG Work Order Number: 1403157 RcptNo: 1

Received by/date: 03/05/14

Logged By: **Lindsay Mangin** 3/5/2014 10:20:00 AM

Completed By: **Lindsay Mangin** 3/5/2014 2:12:07 PM

Reviewed By: MG 03/05/14

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?	Courier		

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	1.0	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403157	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample
3/4/14	1140	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	√													√	
3/4/14	1335	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	√													√	
3/4/14	1235	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	√													√	
3/4/14	1040	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	√													√	
3/4/14	0935	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	√													√	

Date	Time	Relinquished by:	Received by:	Date	Time
3/4/14	1430		Master Waste	3/4/14	1430
3/4/14	1734			03/05/14	1020

Remarks:
BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401
Find Purchase Order in email from BP.

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 23, 2013

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX: (505) 632-3903

RE: GCU #169E OrderNo.: 1312978

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/18/2013 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

Analytical Report
Lab Order **1312978**
Date Reported: **12/23/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #2
Project: GCU #169E
Collection Date: 12/16/2013 2:20:00 PM
Lab ID: 1312978-001
Matrix: AQUEOUS
Received Date: 12/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/21/2013 5:38:58 AM	R15650
Toluene	ND	1.0		µg/L	1	12/21/2013 5:38:58 AM	R15650
Ethylbenzene	ND	1.0		µg/L	1	12/21/2013 5:38:58 AM	R15650
Xylenes, Total	ND	2.0		µg/L	1	12/21/2013 5:38:58 AM	R15650
Surr: 4-Bromofluorobenzene	94.9	85-136		%REC	1	12/21/2013 5:38:58 AM	R15650

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #3
Project: GCU #169E
Collection Date: 12/16/2013 4:15:00 PM
Lab ID: 1312978-002
Matrix: AQUEOUS
Received Date: 12/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/21/2013 1:56:42 PM	R15667
Toluene	ND	1.0		µg/L	1	12/21/2013 1:56:42 PM	R15667
Ethylbenzene	ND	1.0		µg/L	1	12/21/2013 1:56:42 PM	R15667
Xylenes, Total	ND	2.0		µg/L	1	12/21/2013 1:56:42 PM	R15667
Surr: 4-Bromofluorobenzene	98.2	85-136		%REC	1	12/21/2013 1:56:42 PM	R15667

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #169E
Collection Date: 12/16/2013 3:15:00 PM
Lab ID: 1312978-003
Matrix: AQUEOUS
Received Date: 12/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/21/2013 2:26:44 PM	R15667
Toluene	ND	1.0		µg/L	1	12/21/2013 2:26:44 PM	R15667
Ethylbenzene	ND	1.0		µg/L	1	12/21/2013 2:26:44 PM	R15667
Xylenes, Total	ND	2.0		µg/L	1	12/21/2013 2:26:44 PM	R15667
Surr: 4-Bromofluorobenzene	89.8	85-136		%REC	1	12/21/2013 2:26:44 PM	R15667

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #169E
Collection Date: 12/16/2013 1:20:00 PM
Lab ID: 1312978-004
Matrix: AQUEOUS
Received Date: 12/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/21/2013 2:57:03 PM	R15667
Toluene	ND	1.0		µg/L	1	12/21/2013 2:57:03 PM	R15667
Ethylbenzene	ND	1.0		µg/L	1	12/21/2013 2:57:03 PM	R15667
Xylenes, Total	ND	2.0		µg/L	1	12/21/2013 2:57:03 PM	R15667
Surr: 4-Bromofluorobenzene	83.4	85-136	S	%REC	1	12/21/2013 2:57:03 PM	R15667

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #6
Project: GCU #169E
Collection Date: 12/16/2013 12:25:00 PM
Lab ID: 1312978-005
Matrix: AQUEOUS
Received Date: 12/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/21/2013 3:27:29 PM	R15667
Toluene	ND	1.0		µg/L	1	12/21/2013 3:27:29 PM	R15667
Ethylbenzene	ND	1.0		µg/L	1	12/21/2013 3:27:29 PM	R15667
Xylenes, Total	ND	2.0		µg/L	1	12/21/2013 3:27:29 PM	R15667
Surr: 4-Bromofluorobenzene	82.7	85-136	S	%REC	1	12/21/2013 3:27:29 PM	R15667

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 greater than 2 for VOA and TOC only.
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#: **1312978**

23-Dec-13

Client: Blagg Engineering
Project: GCU #169E

Sample ID: **B25**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R15650**	RunNo: **15650**
Prep Date:	Analysis Date: **12/20/2013**	SeqNo: **451492** 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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		89.6	85	136			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R15650**	RunNo: **15650**
Prep Date:	Analysis Date: **12/20/2013**	SeqNo: **451493** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	22	1.0	20.00	0	108	80	120			
Xylenes, Total	66	2.0	60.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.6	85	136			

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R15667**	RunNo: **15667**
Prep Date:	Analysis Date: **12/21/2013**	SeqNo: **451694** 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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		100	85	136			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R15667**	RunNo: **15667**
Prep Date:	Analysis Date: **12/21/2013**	SeqNo: **451695** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	80	120			
Toluene	22	1.0	20.00	0	109	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	65	2.0	60.00	0	109	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		103	85	136			

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 greater than 2 for VOA and TOC only.
- 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: BLAGG | Work Order Number: 1312978 | RcptNo: 1

Received by/date: MG 12/18/13

Logged By: **Anne Thorne** 12/18/2013 10:00:00 AM Anne Thorne

Completed By: **Anne Thorne** 12/20/2013 Anne Thorne

Reviewed By: MG 12/20/13

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?	Courier		

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 ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	10.00	Good	Yes			

Chain of Custody Record

Client:	BLAGG ENGR. / BP AMERICA
Mailing Address:	P.O. BOX 87
	BLOOMFIELD, NM 87413
Phone #:	(505) 632-1199
email or Fax#:	
QA/QC Package:	☑ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other ☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: **GCU # 169E**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1312978	BTEX + MTBE + TMBs (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample
12/16/13	1420	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
12/16/13	1615	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	✓													✓	
12/16/13	1515	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	✓													✓	
12/16/13	1320	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	✓													✓	
12/16/13	1225	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	✓													✓	

Date	Time	Relinquished by:	Received by:	Date	Time
12/17/13	1616			12/17/13	1616
12/17/13	1750			12/18/13	1000

Remarks:

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Find Purchase Order in email from BP.

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 02, 2014

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU #169E OrderNo.: 1411B03

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/26/2014 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

Analytical Report
Lab Order **1411B03**
Date Reported: **12/2/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #2
Project: GCU #169E
Collection Date: 11/25/2014 11:55:00 AM
Lab ID: 1411B03-001
Matrix: AQUEOUS
Received Date: 11/26/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	11/27/2014 3:15:58 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 3:15:58 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 3:15:58 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 3:15:58 AM	R22836
Surr: 4-Bromofluorobenzene	105	66.6-167		%REC	1	11/27/2014 3:15:58 AM	R22836

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #3
Project: GCU #169E
Collection Date: 11/25/2014 1:50:00 PM
Lab ID: 1411B03-002
Matrix: AQUEOUS
Received Date: 11/26/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	11/27/2014 3:43:07 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 3:43:07 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 3:43:07 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 3:43:07 AM	R22836
Surr: 4-Bromofluorobenzene	104	66.6-167		%REC	1	11/27/2014 3:43:07 AM	R22836

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #169E
Collection Date: 11/25/2014 12:55:00 PM
Lab ID: 1411B03-003
Matrix: AQUEOUS
Received Date: 11/26/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	11/27/2014 4:10:19 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 4:10:19 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 4:10:19 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 4:10:19 AM	R22836
Surr: 4-Bromofluorobenzene	101	66.6-167		%REC	1	11/27/2014 4:10:19 AM	R22836

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #169E
Collection Date: 11/25/2014 10:50:00 AM
Lab ID: 1411B03-004
Matrix: AQUEOUS
Received Date: 11/26/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	11/27/2014 4:37:28 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 4:37:28 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 4:37:28 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 4:37:28 AM	R22836
Surr: 4-Bromofluorobenzene	98.8	66.6-167		%REC	1	11/27/2014 4:37:28 AM	R22836

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #6
Project: GCU #169E
Collection Date: 11/25/2014 9:55:00 AM
Lab ID: 1411B03-005
Matrix: AQUEOUS
Received Date: 11/26/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	11/27/2014 5:05:36 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 5:05:36 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 5:05:36 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 5:05:36 AM	R22836
Surr: 4-Bromofluorobenzene	101	66.6-167		%REC	1	11/27/2014 5:05:36 AM	R22836

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 greater than 2.
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#: **1411B03**

02-Dec-14

Client: Blagg Engineering

Project: GCU #169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R22836**	RunNo:	**22836**					
Prep Date:		Analysis Date:	**11/26/2014**	SeqNo:	**673944**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		95.6	66.6	167			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R22836**	RunNo:	**22836**					
Prep Date:		Analysis Date:	**11/26/2014**	SeqNo:	**673945**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	80	120			
Toluene	20	1.0	20.00	0	101	80	120			
Ethylbenzene	20	1.0	20.00	0	102	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		107	66.6	167			

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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: BLAGG Work Order Number: 1411B03 RcptNo: 1

Received by/date: LM 11/26/14

Logged By: **Ashley Gallegos** 11/26/2014 7:00:00 AM AG

Completed By: **Ashley Gallegos** 11/26/2014 10:13:11 AM AG

Reviewed By: CS 11/26/14

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?	Courier		

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	1.3	Good	Yes			

Chain-of-Custody Record

Client:	BLAGG ENGR. / BP AMERICA
Mailing Address:	P.O. BOX 87
	BLOOMFIELD, NM 87413
Phone #:	(505) 632-1199
email or Fax#:	
QA/QC Package:	☑ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other ____
☐ EDD (Type)	____

☑ Standard ☐ Rush ____

Project Name: **GCU # 169E**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1411B03	BTEX + ~~MTBE~~ + ~~TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (**filtered**)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
11/25/14	1155	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
11/25/14	1350	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	✓													✓		
11/25/14	1255	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	✓													✓		
11/25/14	1050	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	✓													✓		
11/25/14	0955	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	✓													✓		

Date	Time	Relinquished by	Received by	Date	Time
11/25/14	1532		Christine Walker	11/25/14	1532
11/25/14	1815	Christine Walker		11/26/14	0700

Remarks:

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Find Purchase Order in email from BP.

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

August 28, 2014

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU # 169E OrderNo.: 1408D04

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/26/2014 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

Analytical Report
Lab Order **1408D04**
Date Reported: **8/28/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 2
Project: GCU # 169E
Collection Date: 8/25/2014 12:45:00 PM
Lab ID: 1408D04-001
Matrix: AQUEOUS
Received Date: 8/26/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/26/2014 5:02:10 PM	R20809
Toluene	ND	1.0		µg/L	1	8/26/2014 5:02:10 PM	R20809
Ethylbenzene	ND	1.0		µg/L	1	8/26/2014 5:02:10 PM	R20809
Xylenes, Total	ND	2.0		µg/L	1	8/26/2014 5:02:10 PM	R20809
Surr: 4-Bromofluorobenzene	116	82.9-139		%REC	1	8/26/2014 5:02:10 PM	R20809

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3
Project: GCU # 169E
Collection Date: 8/25/2014 2:05:00 PM
Lab ID: 1408D04-002
Matrix: AQUEOUS
Received Date: 8/26/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/26/2014 5:32:26 PM	R20809
Toluene	ND	1.0		µg/L	1	8/26/2014 5:32:26 PM	R20809
Ethylbenzene	ND	1.0		µg/L	1	8/26/2014 5:32:26 PM	R20809
Xylenes, Total	ND	2.0		µg/L	1	8/26/2014 5:32:26 PM	R20809
Surr: 4-Bromofluorobenzene	106	82.9-139		%REC	1	8/26/2014 5:32:26 PM	R20809

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 169E
Collection Date: 8/25/2014 1:30:00 PM
Lab ID: 1408D04-003
Matrix: AQUEOUS
Received Date: 8/26/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/26/2014 10:03:53 PM	R20809
Toluene	ND	1.0		µg/L	1	8/26/2014 10:03:53 PM	R20809
Ethylbenzene	ND	1.0		µg/L	1	8/26/2014 10:03:53 PM	R20809
Xylenes, Total	ND	2.0		µg/L	1	8/26/2014 10:03:53 PM	R20809
Surr: 4-Bromofluorobenzene	96.5	82.9-139		%REC	1	8/26/2014 10:03:53 PM	R20809

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU # 169E
Collection Date: 8/25/2014 11:55:00 AM
Lab ID: 1408D04-004
Matrix: AQUEOUS
Received Date: 8/26/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/26/2014 10:34:03 PM	R20809
Toluene	ND	1.0		µg/L	1	8/26/2014 10:34:03 PM	R20809
Ethylbenzene	ND	1.0		µg/L	1	8/26/2014 10:34:03 PM	R20809
Xylenes, Total	ND	2.0		µg/L	1	8/26/2014 10:34:03 PM	R20809
Surr: 4-Bromofluorobenzene	104	82.9-139		%REC	1	8/26/2014 10:34:03 PM	R20809

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 6
Project: GCU # 169E
Collection Date: 8/25/2014 11:10:00 AM
Lab ID: 1408D04-005
Matrix: AQUEOUS
Received Date: 8/26/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/26/2014 11:04:08 PM	R20809
Toluene	ND	1.0		µg/L	1	8/26/2014 11:04:08 PM	R20809
Ethylbenzene	ND	1.0		µg/L	1	8/26/2014 11:04:08 PM	R20809
Xylenes, Total	ND	2.0		µg/L	1	8/26/2014 11:04:08 PM	R20809
Surr: 4-Bromofluorobenzene	106	82.9-139		%REC	1	8/26/2014 11:04:08 PM	R20809

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 greater than 2.
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#: **1408D04**

28-Aug-14

Client: Blagg Engineering

Project: GCU # 169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R20809**	RunNo:	**20809**					
Prep Date:		Analysis Date:	**8/26/2014**	SeqNo:	**605937**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		104	82.9	139			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R20809**	RunNo:	**20809**					
Prep Date:		Analysis Date:	**8/26/2014**	SeqNo:	**605938**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	80	120			
Toluene	20	1.0	20.00	0	98.9	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
Surr: 4-Bromofluorobenzene	23		20.00		117	82.9	139			

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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: BLAGG | Work Order Number: **1408D04** | RcptNo: 1

Received by/date: 08/26/14
Logged By: **Lindsay Mangin** **8/26/2014 7:45:00 AM**
Completed By: **Lindsay Mangin** **8/26/2014 8:34:17 AM**
Reviewed By: 08/26/14

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?	Courier		

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:
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	(<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	2.6	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 7.6

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408024	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (**filtered**)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
8/25/14	1245	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	√													√		
8/25/14	1405	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	√													√		
8/25/14	1330	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	√													√		
8/25/14	1155	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	√													√		
8/25/14	1110	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	√													√		

Date	Time	Relinquished by:	Received by:	Date	Time
8/25/14	1540			8/25/14	1540
8/25/14	1715			8/26/14	0745

Remarks:
BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401
Find Purchase Order in email from BP.

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

September 06, 2013

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU # 169E OrderNo.: 1308D55

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/30/2013 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

Analytical Report
Lab Order **1308D55**
Date Reported: **9/6/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 2
Project: GCU # 169E
Collection Date: 8/28/2013 1:30:00 PM
Lab ID: 1308D55-001
Matrix: AQUEOUS
Received Date: 8/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	9/3/2013 6:09:17 PM	R13040
Toluene	ND	1.0		µg/L	1	9/3/2013 6:09:17 PM	R13040
Ethylbenzene	ND	1.0		µg/L	1	9/3/2013 6:09:17 PM	R13040
Xylenes, Total	ND	2.0		µg/L	1	9/3/2013 6:09:17 PM	R13040
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	1	9/3/2013 6:09:17 PM	R13040
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	1	9/3/2013 6:09:17 PM	R13040
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/3/2013 6:09:17 PM	R13040
Surr: Toluene-d8	95.5	70-130		%REC	1	9/3/2013 6:09:17 PM	R13040

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3
Project: GCU # 169E
Collection Date: 8/28/2013 4:20:00 PM
Lab ID: 1308D55-002
Matrix: AQUEOUS
Received Date: 8/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	4.1	1.0		µg/L	1	9/3/2013 6:38:14 PM	R13040
Toluene	ND	1.0		µg/L	1	9/3/2013 6:38:14 PM	R13040
Ethylbenzene	1.4	1.0		µg/L	1	9/3/2013 6:38:14 PM	R13040
Xylenes, Total	ND	2.0		µg/L	1	9/3/2013 6:38:14 PM	R13040
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	9/3/2013 6:38:14 PM	R13040
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	9/3/2013 6:38:14 PM	R13040
Surr: Dibromofluoromethane	106	70-130		%REC	1	9/3/2013 6:38:14 PM	R13040
Surr: Toluene-d8	94.4	70-130		%REC	1	9/3/2013 6:38:14 PM	R13040

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 169E
Collection Date: 8/28/2013 3:40:00 PM
Lab ID: 1308D55-003
Matrix: AQUEOUS
Received Date: 8/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	9/3/2013 7:36:00 PM	R13040
Toluene	ND	1.0		µg/L	1	9/3/2013 7:36:00 PM	R13040
Ethylbenzene	ND	1.0		µg/L	1	9/3/2013 7:36:00 PM	R13040
Xylenes, Total	ND	2.0		µg/L	1	9/3/2013 7:36:00 PM	R13040
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	9/3/2013 7:36:00 PM	R13040
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	9/3/2013 7:36:00 PM	R13040
Surr: Dibromofluoromethane	112	70-130		%REC	1	9/3/2013 7:36:00 PM	R13040
Surr: Toluene-d8	95.6	70-130		%REC	1	9/3/2013 7:36:00 PM	R13040

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU # 169E
Collection Date: 8/28/2013 2:10:00 PM
Lab ID: 1308D55-004
Matrix: AQUEOUS
Received Date: 8/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	9/3/2013 8:04:47 PM	R13040
Toluene	ND	1.0		µg/L	1	9/3/2013 8:04:47 PM	R13040
Ethylbenzene	ND	1.0		µg/L	1	9/3/2013 8:04:47 PM	R13040
Xylenes, Total	ND	2.0		µg/L	1	9/3/2013 8:04:47 PM	R13040
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%REC	1	9/3/2013 8:04:47 PM	R13040
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	9/3/2013 8:04:47 PM	R13040
Surr: Dibromofluoromethane	110	70-130		%REC	1	9/3/2013 8:04:47 PM	R13040
Surr: Toluene-d8	99.5	70-130		%REC	1	9/3/2013 8:04:47 PM	R13040

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 6
Project: GCU # 169E
Collection Date: 8/28/2013 2:55:00 PM
Lab ID: 1308D55-005
Matrix: AQUEOUS
Received Date: 8/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	9/3/2013 8:33:31 PM	R13040
Toluene	ND	1.0		µg/L	1	9/3/2013 8:33:31 PM	R13040
Ethylbenzene	ND	1.0		µg/L	1	9/3/2013 8:33:31 PM	R13040
Xylenes, Total	ND	2.0		µg/L	1	9/3/2013 8:33:31 PM	R13040
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	1	9/3/2013 8:33:31 PM	R13040
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	9/3/2013 8:33:31 PM	R13040
Surr: Dibromofluoromethane	111	70-130		%REC	1	9/3/2013 8:33:31 PM	R13040
Surr: Toluene-d8	95.8	70-130		%REC	1	9/3/2013 8:33:31 PM	R13040

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 greater than 2 for VOA and TOC only.
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#: **1308D55**

06-Sep-13

Client: Blagg Engineering

Project: GCU # 169E

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R13040**	RunNo: **13040**
Prep Date:	Analysis Date: **9/3/2013**	SeqNo: **372717** 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								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R13040**	RunNo: **13040**
Prep Date:	Analysis Date: **9/3/2013**	SeqNo: **372718** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.8	70	130			
Toluene	18	1.0	20.00	0	90.8	82.2	124			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.4	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.8	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

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 greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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: BLAGG Work Order Number: 1308D55 RcptNo: 1

Received by/date: 08/30/13

Logged By: **Lindsay Mangin** 8/30/2013 10:00:00 AM

Completed By: **Lindsay Mangin** 8/30/2013 1:19:38 PM

Reviewed By: MG 08/30/13

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?	Courier		

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	4.9	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.9

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1308155	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample
8/28/13	1330	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	√													√	
8/28/13	1620	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	√													√	
8/28/13	1540	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	√													√	
8/28/13	1410	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004	√													√	
8/28/13	1455	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005	√													√	

Date	Time	Relinquished by:	Received by:	Date	Time
8/29/13	820		Christine Walley	8/29/13	820
8/29/13	1757	Christine Walley		08/30/13	1000

Remarks:

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Find Purchase Order in email from BP.

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

May 13, 2013

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX: (505) 632-3903

RE: GCU # 169E OrderNo.: 1304A90

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/26/2013 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. 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. 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1304A90**
Date Reported: **5/13/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 1
Project: GCU # 169E
Collection Date: 4/25/2013 9:55:00 AM
Lab ID: 1304A90-001
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/1/2013 3:41:12 PM
Toluene	ND	1.0		µg/L	1	5/1/2013 3:41:12 PM
Ethylbenzene	ND	1.0		µg/L	1	5/1/2013 3:41:12 PM
Xylenes, Total	ND	2.0		µg/L	1	5/1/2013 3:41:12 PM
Surr: 4-Bromofluorobenzene	99.5	69.4-129		%REC	1	5/1/2013 3:41:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.53	0.50		mg/L	5	4/26/2013 10:06:43 PM
Chloride	20	2.5		mg/L	5	4/26/2013 10:06:43 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/26/2013 10:06:43 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/26/2013 10:06:43 PM
Sulfate	970	10	*	mg/L	20	4/26/2013 10:19:08 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	0.045	0.020		mg/L	1	4/29/2013 1:12:59 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1600	100	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 2
Project: GCU # 169E
Collection Date: 4/25/2013 12:10:00 PM
Lab ID: 1304A90-002
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/1/2013 4:09:46 PM
Toluene	ND	1.0		µg/L	1	5/1/2013 4:09:46 PM
Ethylbenzene	ND	1.0		µg/L	1	5/1/2013 4:09:46 PM
Xylenes, Total	ND	2.0		µg/L	1	5/1/2013 4:09:46 PM
Surr: 4-Bromofluorobenzene	102	69.4-129		%REC	1	5/1/2013 4:09:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.51	0.50		mg/L	5	4/26/2013 10:31:33 PM
Chloride	26	2.5		mg/L	5	4/26/2013 10:31:33 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/26/2013 10:31:33 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/26/2013 10:31:33 PM
Sulfate	990	25	*	mg/L	50	5/3/2013 1:27:37 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	0.43	0.020	*	mg/L	1	4/29/2013 1:18:21 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1910	40.0	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3
Project: GCU # 169E
Collection Date: 4/25/2013 1:40:00 PM
Lab ID: 1304A90-003
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	57	2.0		µg/L	2	5/1/2013 8:56:07 PM
Toluene	ND	2.0		µg/L	2	5/1/2013 8:56:07 PM
Ethylbenzene	21	2.0		µg/L	2	5/1/2013 8:56:07 PM
Xylenes, Total	250	4.0		µg/L	2	5/1/2013 8:56:07 PM
Surr: 4-Bromofluorobenzene	112	69.4-129		%REC	2	5/1/2013 8:56:07 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.53	0.50		mg/L	5	4/26/2013 8:52:14 PM
Chloride	25	2.5		mg/L	5	4/26/2013 8:52:14 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/26/2013 8:52:14 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/26/2013 8:52:14 PM
Sulfate	960	25	*	mg/L	50	5/3/2013 1:40:02 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	3.6	0.10	*	mg/L	5	4/29/2013 1:25:45 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1820	200	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 169E
Collection Date: 4/25/2013 12:55:00 PM
Lab ID: 1304A90-004
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	6.3	2.0		µg/L	2	5/1/2013 9:24:38 PM
Toluene	ND	2.0		µg/L	2	5/1/2013 9:24:38 PM
Ethylbenzene	ND	2.0		µg/L	2	5/1/2013 9:24:38 PM
Xylenes, Total	4.7	4.0		µg/L	2	5/1/2013 9:24:38 PM
Surr: 4-Bromofluorobenzene	104	69.4-129		%REC	2	5/1/2013 9:24:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.58	0.50		mg/L	5	4/26/2013 11:21:12 PM
Chloride	20	2.5		mg/L	5	4/26/2013 11:21:12 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/26/2013 11:21:12 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/26/2013 11:21:12 PM
Sulfate	920	10	*	mg/L	20	4/26/2013 11:33:37 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	3.7	0.10	*	mg/L	5	4/29/2013 1:30:27 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1630	200	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU # 169E
Collection Date: 4/25/2013 11:25:00 AM
Lab ID: 1304A90-005
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	5/1/2013 9:53:13 PM
Toluene	ND	2.0		µg/L	2	5/1/2013 9:53:13 PM
Ethylbenzene	ND	2.0		µg/L	2	5/1/2013 9:53:13 PM
Xylenes, Total	ND	4.0		µg/L	2	5/1/2013 9:53:13 PM
Surr: 4-Bromofluorobenzene	103	69.4-129		%REC	2	5/1/2013 9:53:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.51	0.50		mg/L	5	4/27/2013 12:10:52 AM
Chloride	20	2.5		mg/L	5	4/27/2013 12:10:52 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/27/2013 12:10:52 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/27/2013 12:10:52 AM
Sulfate	890	25	*	mg/L	50	5/3/2013 1:52:27 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	0.84	0.020	*	mg/L	1	4/29/2013 1:44:02 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1740	200	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 6
Project: GCU # 169E
Collection Date: 4/25/2013 10:40:00 AM
Lab ID: 1304A90-006
Matrix: AQUEOUS
Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	5/1/2013 10:21:53 PM
Toluene	ND	2.0		µg/L	2	5/1/2013 10:21:53 PM
Ethylbenzene	ND	2.0		µg/L	2	5/1/2013 10:21:53 PM
Xylenes, Total	ND	4.0		µg/L	2	5/1/2013 10:21:53 PM
Surr: 4-Bromofluorobenzene	99.2	69.4-129		%REC	2	5/1/2013 10:21:53 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.71	0.50		mg/L	5	4/27/2013 12:35:42 AM
Chloride	25	2.5		mg/L	5	4/27/2013 12:35:42 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	4/27/2013 12:35:42 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	4/27/2013 12:35:42 AM
Sulfate	1400	25	*	mg/L	50	5/3/2013 2:04:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Iron	0.49	0.020	*	mg/L	1	4/29/2013 1:49:03 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2430	200	*	mg/L	1	5/2/2013 5:35:00 PM

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
P	Sample pH greater than 2	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#: **1304A90**
13-May-13

Client: Blagg Engineering
Project: GCU # 169E

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R10183**	RunNo: **10183**
Prep Date:	Analysis Date: **4/29/2013**	SeqNo: **289964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R10183**	RunNo: **10183**
Prep Date:	Analysis Date: **4/29/2013**	SeqNo: **289965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0	105	85	115			

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
P	Sample pH greater than 2	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#: **1304A90**

13-May-13

Client: Blagg Engineering

Project: GCU # 169E

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R10191**	RunNo: **10191**
Prep Date:	Analysis Date: **4/26/2013**	SeqNo: **290383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R10191**	RunNo: **10191**
Prep Date:	Analysis Date: **4/26/2013**	SeqNo: **290384** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.2	90	110			
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	91.8	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R10191**	RunNo: **10191**
Prep Date:	Analysis Date: **4/26/2013**	SeqNo: **290438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R10191**	RunNo: **10191**
Prep Date:	Analysis Date: **4/26/2013**	SeqNo: **290439** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.2	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Sulfate	9.8	0.50	10.00	0	97.7	90	110			

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
P	Sample pH greater than 2	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#: **1304A90**

13-May-13

Client: Blagg Engineering

Project: GCU # 169E

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R10287**	RunNo: **10287**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293290** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R10287**	RunNo: **10287**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293291** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

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
P	Sample pH greater than 2	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#: **1304A90**

13-May-13

Client: Blagg Engineering

Project: GCU # 169E

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R10256**	RunNo: **10256**
Prep Date:	Analysis Date: **5/1/2013**	SeqNo: **292424** 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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		103	69.4	129			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R10256**	RunNo: **10256**
Prep Date:	Analysis Date: **5/1/2013**	SeqNo: **292426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	80	120			
Toluene	20	1.0	20.00	0	102	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	60	2.0	60.00	0	101	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		108	69.4	129			

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
P	Sample pH greater than 2	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#: **1304A90**

13-May-13

Client: Blagg Engineering

Project: GCU # 169E

Sample ID: **MB-7237**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **7237**	RunNo: **10278**
Prep Date: **5/1/2013**	Analysis Date: **5/2/2013**	SeqNo: **293040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-7237**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **7237**	RunNo: **10278**
Prep Date: **5/1/2013**	Analysis Date: **5/2/2013**	SeqNo: **293041** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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: BLAGG | Work Order Number: 1304A90 | RcptNo: 1

Received by/date: AG 04/26/13

Logged By: **Lindsay Mangin** 4/26/2013 10:00:00 AM

Completed By: **Lindsay Mangin** 4/26/2013 12:43:35 PM

Reviewed By: 04/26/13

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?	Courier		

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: 12 (<2 or >12 unless noted)

Adjusted? 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	Yes			

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

Mailing Address: P.O. BOX 87
BLOOMFIELD, NM 87413

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU # 169E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1304490	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals NV	Anions (F,Cl,~~NO3,NO2,PO4,~~SO4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
4/25/13	0955	WATER	MW # 1	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
4/25/13	0955	WATER	MW # 1	500 ml - 1	Cool									✓	✓					✓		
4/25/13	0955	WATER	MW # 1	250 ml - 1 NV	~~HCl~~ HNO3 & Cool											✓				✓		
4/25/13	0955	WATER	MW # 1	250 ml - 1	H_2SO_4												✓			✓		
4/25/13	1210	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-002	✓													✓		
4/25/13	1210	WATER	MW # 2	500 ml - 1	Cool									✓	✓					✓		
4/25/13	1210	WATER	MW # 2	250 ml - 1 NV	~~HCl~~ HNO3 & Cool											✓				✓		
4/25/13	1210	WATER	MW # 2	250 ml - 1	H_2SO_4												✓			✓		
4/25/13	1340	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-003	✓													✓		
4/25/13	1340	WATER	MW # 3	500 ml - 1	Cool									✓	✓					✓		
4/25/13	1340	WATER	MW # 3	250 ml - 1 NV	~~HCl~~ HNO3 & Cool											✓				✓		
4/25/13	1340	WATER	MW # 3	250 ml - 1	H_2SO_4												✓			✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/25/13	1604			4/25/13	1604
4/25/13	1756			04/26/13	1000

Remarks:

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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.

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1304190	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,~~NO3,NO2,PO4,~~SO4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	
4/25/13	1255	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-004	√													√		
4/25/13	1255	WATER	MW # 4	500 ml - 1	Cool									√	√					√		
4/25/13	1255	WATER	MW # 4	250 ml - 1	~~HCl~~ HNO3 & Cool											√				√		
4/25/13	1255	WATER	MW # 4	250 ml - 1	H_2SO_4												√			√		
4/25/13	1125	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-005	√													√		
4/25/13	1125	WATER	MW # 5	500 ml - 1	Cool									√	√					√		
4/25/13	1125	WATER	MW # 5	250 ml - 1	~~HCl~~ HNO3 & Cool											√				√		
4/25/13	1125	WATER	MW # 5	250 ml - 1	H_2SO_4												√			√		
4/25/13	1040	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-006	√													√		
4/25/13	1040	WATER	MW # 6	500 ml - 1	Cool									√	√					√		
4/25/13	1040	WATER	MW # 6	250 ml - 1	~~HCl~~ HNO3 & Cool											√				√		
4/25/13	1040	WATER	MW # 6	250 ml - 1	H_2SO_4												√			√		

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/25/13	1604		Christine Walker	4/25/13	1604
4/25/13	1750	Christine Walker		04/26/13	1000

Remarks:

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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

May 18, 2015

Nelson Velez

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-3489
FAX (505) 632-3903

RE: GCU # 169E OrderNo.: 1505687

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/15/2015 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: Blagg Engineering
Project: GCU # 169E
Lab Order: 1505687

Lab ID: 1505687-001 **Collection Date:** 5/14/2015 12:30:00 PM
Client Sample ID: MW # 2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/15/2015 9:05:15 PM	R26234
Toluene	ND	1.0		µg/L	1	5/15/2015 9:05:15 PM	R26234
Ethylbenzene	ND	1.0		µg/L	1	5/15/2015 9:05:15 PM	R26234
Xylenes, Total	ND	2.0		µg/L	1	5/15/2015 9:05:15 PM	R26234
Surr: 4-Bromofluorobenzene	97.8	80-120		%REC	1	5/15/2015 9:05:15 PM	R26234

Lab ID: 1505687-002 **Collection Date:** 5/14/2015 2:30:00 PM
Client Sample ID: MW # 3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/15/2015 9:34:01 PM	R26234
Toluene	ND	1.0		µg/L	1	5/15/2015 9:34:01 PM	R26234
Ethylbenzene	ND	1.0		µg/L	1	5/15/2015 9:34:01 PM	R26234
Xylenes, Total	ND	2.0		µg/L	1	5/15/2015 9:34:01 PM	R26234
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	5/15/2015 9:34:01 PM	R26234

Lab ID: 1505687-003 **Collection Date:** 5/14/2015 1:30:00 PM
Client Sample ID: MW # 4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/15/2015 10:02:45 PM	R26234
Toluene	ND	1.0		µg/L	1	5/15/2015 10:02:45 PM	R26234
Ethylbenzene	ND	1.0		µg/L	1	5/15/2015 10:02:45 PM	R26234
Xylenes, Total	ND	2.0		µg/L	1	5/15/2015 10:02:45 PM	R26234
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/15/2015 10:02:45 PM	R26234

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

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, Inc.

CLIENT: Blagg Engineering
Project: GCU # 169E

Lab Order: 1505687

Lab ID: 1505687-004 **Collection Date:** 5/14/2015 11:30:00 AM
Client Sample ID: MW # 5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/15/2015 10:31:25 PM	R26234
Toluene	ND	1.0		µg/L	1	5/15/2015 10:31:25 PM	R26234
Ethylbenzene	ND	1.0		µg/L	1	5/15/2015 10:31:25 PM	R26234
Xylenes, Total	ND	2.0		µg/L	1	5/15/2015 10:31:25 PM	R26234
Surr: 4-Bromofluorobenzene	98.0	80-120		%REC	1	5/15/2015 10:31:25 PM	R26234

Lab ID: 1505687-005 **Collection Date:** 5/14/2015 10:30:00 AM
Client Sample ID: MW # 6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/15/2015 11:00:07 PM	R26234
Toluene	ND	1.0		µg/L	1	5/15/2015 11:00:07 PM	R26234
Ethylbenzene	ND	1.0		µg/L	1	5/15/2015 11:00:07 PM	R26234
Xylenes, Total	ND	2.0		µg/L	1	5/15/2015 11:00:07 PM	R26234
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	5/15/2015 11:00:07 PM	R26234

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

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#: **1505687**

18-May-15

Client: Blagg Engineering

Project: GCU # 169E

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**LCSW**	Batch ID:	**R26234**		RunNo:	**26234**				
Prep Date:		Analysis Date:	**5/15/2015**		SeqNo:	**779458**	Units:	**µg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		94.3	80	120			

Sample ID	**5ML RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**PBW**	Batch ID:	**R26234**		RunNo:	**26234**				
Prep Date:		Analysis Date:	**5/15/2015**		SeqNo:	**779481**	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								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		92.1	80	120			

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

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: **BLAGG** Work Order Number: **1505687** RcptNo: **1**

Received by/date: AT 05/15/15

Logged By: **Lindsay Mangin** **5/15/2015 7:26:00 AM**

Completed By: **Lindsay Mangin** **5/15/2015 8:14:17 AM**

Reviewed By: AT 5-15-15

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?	Courier		

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	1.2	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.2

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1505687
5/14/15	1230	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001
5/14/15	1430	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002
5/14/15	1330	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003
5/14/15	1130	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-004
5/14/15	1030	WATER	MW # 6	40 ml VOA - 2	HCl & Cool	-005

Analysis Request

BTEX + ~~MTBE~~ + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	Iron, Ferrous (**filtered**)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	
✓													✓		
✓													✓		
✓													✓		
✓													✓		
✓													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/14/15	1537		Chad Waller	5/14/15	1537
Date:	Time:	Relinquished by:	Received by:	Date	Time
5/14/15	1910			05/15/15	0721

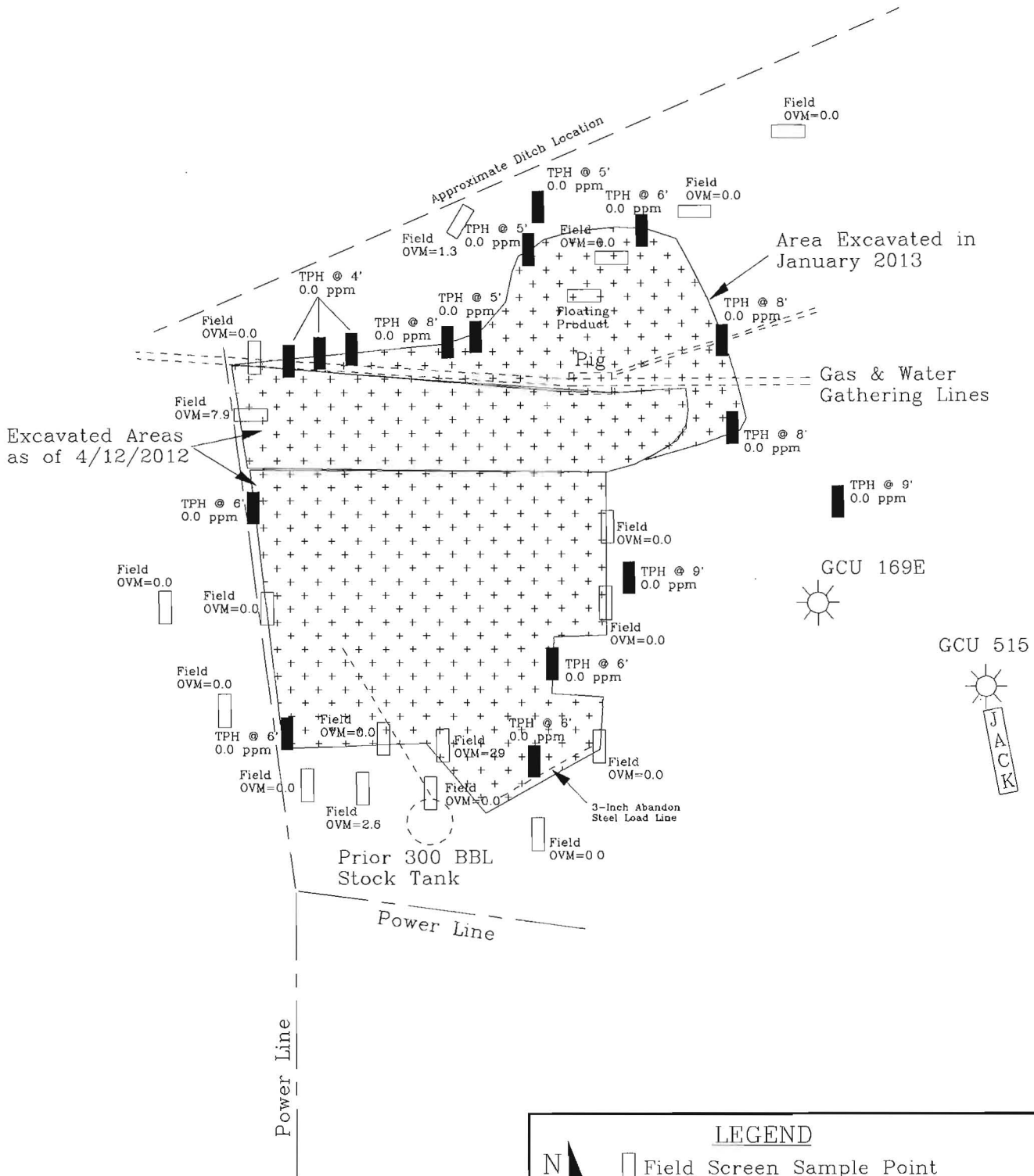
Remarks:

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Paykey: ZEVH01REME

GCU 169E

Remedial Excavation Documentation



LEGEND

N

Field Screen Sample Point

Lab Confirmation Sample Point

0 50 100 Feet

SITE FIGURE BP ** GCU 169E ** (H)35-T29N-R12W			BLAGG ENGINEERING, INC.
DATE: 1/10/2013	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, December 21, 2011

Nelson Velez
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413

TEL: (505) 632-1199
FAX (505) 632-3903

RE: GCU #169E

Order No.: 1112533

Dear Nelson Velez:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 12/12/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1112533	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (300.0)		Grab sample	4 pt. composite sample	Air Bubbles (Y or N)
12/8/11	1450	WATER	GW-TB @ 5.5' (95 BGT)	40 ml VOA - 2	HCl & Cool	1	√													√		
12/8/11	1450	WATER	GW-TB @ 5.5' (95 BGT)	250 ml - 1	Cool	1												√		√		
12/8/11	1500	SOIL	4PC-SW @ 2' (95 BGT)	4 oz. - 1	Cool	2	√		√	√								√			√	

Date	Time	Relinquished by:	Received by:	Date	Time
12/11/11 NV	1200 ~~1330~~ NV			12/11/11	1200
12/12/11	700			12/12/11	1145

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1498759 Paykey: ZANDERSGEN

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-11*
Analytical Report

CLIENT:	Blagg Engineering	**Client Sample ID:**	GW-TB @ 5.5' (95 BGT)
Lab Order:	1112533	**Collection Date:**	12/8/2011 2:50:00 PM
Project:	GCU #169E	**Date Received:**	12/12/2011
Lab ID:	1112533-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/13/2011 7:31:27 PM
Toluene	ND	1.0		µg/L	1	12/13/2011 7:31:27 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2011 7:31:27 PM
Xylenes, Total	2.1	2.0		µg/L	1	12/13/2011 7:31:27 PM
Surr: 4-Bromofluorobenzene	102	76.5-115		%REC	1	12/13/2011 7:31:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	220	10		mg/L	20	12/13/2011 4:11:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-11*
Analytical Report

CLIENT:	Blagg Engineering	**Client Sample ID:**	4PC-SW @ 2' (95 BGT)
Lab Order:	1112533	**Collection Date:**	12/8/2011 3:00:00 PM
Project:	GCU #169E	**Date Received:**	12/12/2011
Lab ID:	1112533-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/18/2011 9:12:11 AM
Surr: DNOP	99.3	77.4-131		%REC	1	12/18/2011 9:12:11 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/16/2011 5:22:54 PM
Surr: BFB	93.2	69.7-121		%REC	1	12/16/2011 5:22:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	12/16/2011 5:22:54 PM
Toluene	ND	0.048		mg/Kg	1	12/16/2011 5:22:54 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/16/2011 5:22:54 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/16/2011 5:22:54 PM
Surr: 4-Bromofluorobenzene	98.3	80-120		%REC	1	12/16/2011 5:22:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	30	1.5		mg/Kg	1	12/19/2011 9:27:05 PM
EPA METHOD 418.1: TPH						Analyst: **JB**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	12/15/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #169E **Work Order:** 1112533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-29780		*MBLK*				Batch ID:	**29780**	Analysis Date:	12/19/2011 7:07:48 PM		
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-29780		*LCS*				Batch ID:	**29780**	Analysis Date:	12/19/2011 7:25:13 PM		
Chloride	14.23	mg/Kg	1.5	15	0	94.9	90	110			
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R49564**	Analysis Date:	12/12/2011 1:54:31 PM		
Chloride	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R49564**	Analysis Date:	12/12/2011 9:21:43 PM		
Chloride	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R49564**	Analysis Date:	12/12/2011 2:06:56 PM		
Chloride	4.755	mg/L	0.50	5	0	95.1	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R49564**	Analysis Date:	12/12/2011 9:34:07 PM		
Chloride	4.704	mg/L	0.50	5	0	94.1	90	110			
Method: EPA Method 418.1: TPH											
Sample ID: MB-29751		*MBLK*				Batch ID:	**29751**	Analysis Date:		12/15/2011	
Petroleum Hydrocarbons, TR	ND	mg/Kg	20								
Sample ID: LCS-29751		*LCS*				Batch ID:	**29751**	Analysis Date:		12/15/2011	
Petroleum Hydrocarbons, TR	98.96	mg/Kg	20	100	0	99.0	87.8	115			
Sample ID: LCSD-29751		*LCSD*				Batch ID:	**29751**	Analysis Date:		12/15/2011	
Petroleum Hydrocarbons, TR	101.4	mg/Kg	20	100	0	101	87.8	115	2.44	8.04	
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-29749		*MBLK*				Batch ID:	**29749**	Analysis Date:	12/15/2011 6:06:49 AM		
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-29749		*LCS*				Batch ID:	**29749**	Analysis Date:	12/15/2011 6:40:42 AM		
Diesel Range Organics (DRO)	59.39	mg/Kg	10	50	0	119	62.7	139			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-29737		*MBLK*				Batch ID:	**29737**	Analysis Date:	12/16/2011 12:20:27 PM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-29737		*LCS*				Batch ID:	**29737**	Analysis Date:	12/16/2011 11:19:58 AM		
Gasoline Range Organics (GRO)	28.64	mg/Kg	5.0	25	2.06	106	86.4	132			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: GCU #169E **Work Order:** 1112533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-29737		*MBLK*				Batch ID:	**29737**	Analysis Date:	12/16/2011 12:20:27 PM		
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-29737		*LCS*				Batch ID:	**29737**	Analysis Date:	12/16/2011 11:50:10 AM		
Benzene	1.048	mg/Kg	0.050	1	0.0038	104	80	120			
Toluene	1.009	mg/Kg	0.050	1	0.0059	100	80	120			
Ethylbenzene	1.070	mg/Kg	0.050	1	0.0085	106	80	120			
Xylenes, Total	3.322	mg/Kg	0.10	3	0	111	80	120			
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML-RB		*MBLK*				Batch ID:	**R49592**	Analysis Date:	12/13/2011 11:47:40 AM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R49592**	Analysis Date:	12/13/2011 11:18:48 AM		
Benzene	23.09	µg/L	1.0	20	0.4276	113	80	120			
Toluene	23.34	µg/L	1.0	20	0.483	114	80	120			
Ethylbenzene	23.14	µg/L	1.0	20	0.5194	113	80	120			
Xylenes, Total	69.75	µg/L	2.0	60	0	116	78.6	121			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date Received: 12/12/2011

Work Order Number 1112533 | Received by: LNM

Checklist completed by: Signature 12/12/11 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**4.6°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

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

April 18, 2012

Jeff Blagg

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU #169E OrderNo.: 1204536

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/13/2012 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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 169E

Project #:

Project Manager:
JEFF BLAGG

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 1-3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1204536	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (300.0)		Grab sample	5 pt. composite sample
4/11/12	0950	SOIL	GS @ 6' (NW corner) - 183', N80.5W	4 oz. - 1	Cool	-001	✓		✓											✓	

Analysis Request

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1527575 Paykey: ZANDERSGEN

Date	Time	Relinquished by:	Received by:	Date	Time
4/12/12	1245		Christine Walters	4/12/12	1245
4/12/12	1711	Christine Walters		04/13/12	0945

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, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GS @ 6' (NW Corner)- 183', N8
Project: GCU #169E
Collection Date: 4/11/2012 9:50:00 AM
Lab ID: 1204536-001 **Matrix:** SOIL **Received Date:** 4/13/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/16/2012 8:27:22 AM
Surr: DNOP	96.2	77.4-131		%REC	1	4/16/2012 8:27:22 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/16/2012 5:54:15 PM
Surr: BFB	100	69.7-121		%REC	1	4/16/2012 5:54:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	4/16/2012 5:54:15 PM
Toluene	ND	0.049		mg/Kg	1	4/16/2012 5:54:15 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/16/2012 5:54:15 PM
Xylenes, Total	ND	0.097		mg/Kg	1	4/16/2012 5:54:15 PM
Surr: 4-Bromofluorobenzene	94.3	80-120		%REC	1	4/16/2012 5:54:15 PM

Qualifiers:

*/X	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
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#: **1204536**

18-Apr-12

Client: Blagg Engineering

Project: GCU #169E

Sample ID	**MB-1530**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**1530**	RunNo:	**2143**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**59548**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		99.2	77.4	131			

Sample ID	**LCS-1530**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**1530**	RunNo:	**2143**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**59549**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	72.8	62.7	139			
Surr: DNOP	4.4		5.000		87.5	77.4	131			

Sample ID	**1204532-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID:	**1530**	RunNo:	**2143**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/17/2012**	SeqNo:	**59829**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.15	0	102	57.2	146	0.0391	26.7	
Surr: DNOP	5.3		5.015		105	77.4	131	0	0	

Sample ID	**1204532-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID:	**1530**	RunNo:	**2155**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/17/2012**	SeqNo:	**60424**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.15	0	102	57.2	146			
Surr: DNOP	4.5		5.015		90.3	77.4	131			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204536**

18-Apr-12

Client: Blagg Engineering

Project: GCU #169E

Sample ID	**MB-1523**	SampType: **MBLK**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **1523**			RunNo: **2146**					
Prep Date:	**4/13/2012**	Analysis Date: **4/16/2012**			SeqNo: **59997**		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	1,000		1,000		101	69.7	121			

Sample ID	**LCS-1523**	SampType: **LCS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **1523**			RunNo: **2146**					
Prep Date:	**4/13/2012**	Analysis Date: **4/16/2012**			SeqNo: **59998**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	116	98.5	133			
Surr: BFB	1,100		1,000		108	69.7	121			

Sample ID	**1204532-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **1523**			RunNo: **2146**					
Prep Date:	**4/13/2012**	Analysis Date: **4/16/2012**			SeqNo: **60036**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	23.99	0	111	85.4	147			
Surr: BFB	1,000		959.7		108	69.7	121			

Sample ID	**1204532-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **1523**			RunNo: **2146**					
Prep Date:	**4/13/2012**	Analysis Date: **4/16/2012**			SeqNo: **60043**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	24.13	0	115	85.4	147	3.51	19.2	
Surr: BFB	1,100		965.3		109	69.7	121	0	0	

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204536**

18-Apr-12

Client: Blagg Engineering
Project: GCU #169E

Sample ID	**MB-1523**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**1523**	RunNo:	**2146**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**60070**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.2	80	120			

Sample ID	**LCS-1523**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**1523**	RunNo:	**2146**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**60071**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.0	83.3	107			
Toluene	0.94	0.050	1.000	0	94.4	74.3	115			
Ethylbenzene	0.94	0.050	1.000	0	93.8	80.9	122			
Xylenes, Total	2.8	0.10	3.000	0	94.8	85.2	123			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	80	120			

Sample ID	**1204534-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**1523**	RunNo:	**2146**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**60088**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.047	0.9443	0	92.1	67.2	113			
Toluene	0.91	0.047	0.9443	0	96.4	62.1	116			
Ethylbenzene	0.89	0.047	0.9443	0	94.8	67.9	127			
Xylenes, Total	2.7	0.094	2.833	0	96.4	60.6	134			
Surr: 4-Bromofluorobenzene	0.93		0.9443		98.0	80	120			

Sample ID	**1204534-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**1523**	RunNo:	**2146**					
Prep Date:	**4/13/2012**	Analysis Date:	**4/16/2012**	SeqNo:	**60089**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.048	0.9597	0	92.8	67.2	113	2.45	14.3	
Toluene	0.92	0.048	0.9597	0	95.5	62.1	116	0.718	15.9	
Ethylbenzene	0.91	0.048	0.9597	0	94.9	67.9	127	1.75	14.4	
Xylenes, Total	2.7	0.096	2.879	0	95.3	60.6	134	0.378	12.6	
Surr: 4-Bromofluorobenzene	0.93		0.9597		97.0	80	120	0	0	

Qualifiers:

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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
R	RPD outside accepted recovery limits	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: BLAGG

Work Order Number: 1204536

Received by/date: 04/13/12

Logged By: **Ashley Gallegos** 4/13/2012 9:45:00 AM

Completed By: **Ashley Gallegos** 4/13/2012 10:07:05 AM

Reviewed By: IO 04/13/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Courier		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. 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:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

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

March 02, 2012

Jeff Blagg

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX

RE: GCU 169E OrderNo.: 1202931

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/29/2012 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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH-8 @ 6'
Project: GCU 169E
Collection Date: 2/24/2012 9:13:00 AM
Lab ID: 1202931-001
Matrix: SOIL
Received Date: 2/29/2012 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/1/2012 9:17:45 AM
Surr: DNOP	85.9	77.4-131		%REC	1	3/1/2012 9:17:45 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/1/2012 12:47:14 PM
Surr: BFB	130	69.7-121	S	%REC	1	3/1/2012 12:47:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.049		mg/Kg	1	3/1/2012 12:47:14 PM
Toluene	ND	0.049		mg/Kg	1	3/1/2012 12:47:14 PM
Ethylbenzene	ND	0.049		mg/Kg	1	3/1/2012 12:47:14 PM
Xylenes, Total	ND	0.098		mg/Kg	1	3/1/2012 12:47:14 PM
Surr: 4-Bromofluorobenzene	117	85.3-139		%REC	1	3/1/2012 12:47:14 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH-11 @ 6'
Project: GCU 169E
Collection Date: 2/24/2012 9:57:00 AM
Lab ID: 1202931-002
Matrix: SOIL
Received Date: 2/29/2012 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/1/2012 11:55:03 AM
Surr: DNOP	88.9	77.4-131		%REC	1	3/1/2012 11:55:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/1/2012 1:17:30 PM
Surr: BFB	114	69.7-121		%REC	1	3/1/2012 1:17:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/1/2012 1:17:30 PM
Toluene	ND	0.050		mg/Kg	1	3/1/2012 1:17:30 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/1/2012 1:17:30 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/1/2012 1:17:30 PM
Surr: 4-Bromofluorobenzene	112	85.3-139		%REC	1	3/1/2012 1:17:30 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH-14 @ 4'
Project: GCU 169E
Collection Date: 2/24/2012 11:11:00 AM
Lab ID: 1202931-003
Matrix: SOIL
Received Date: 2/29/2012 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1,500	99		mg/Kg	10	3/1/2012 5:38:38 PM
Surr: DNOP	0	77.4-131	S	%REC	10	3/1/2012 5:38:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	8,500	970		mg/Kg	200	3/1/2012 3:49:06 PM
Surr: BFB	107	69.7-121		%REC	200	3/1/2012 3:49:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	67	9.7		mg/Kg	200	3/1/2012 3:49:06 PM
Toluene	610	9.7		mg/Kg	200	3/1/2012 3:49:06 PM
Ethylbenzene	31	9.7		mg/Kg	200	3/1/2012 3:49:06 PM
Xylenes, Total	480	19		mg/Kg	200	3/1/2012 3:49:06 PM
Surr: 4-Bromofluorobenzene	97.3	85.3-139		%REC	200	3/1/2012 3:49:06 PM

Note: These soils were excavated and transported to the BP Crouch Mesa Landfarm (jcblagg-1/11/2013)

Qualifiers:

*/X	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
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#: **1202931**

02-Mar-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID **MB-891**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **891**	RunNo: **1195**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34033** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.2	77.4	131			

Sample ID **LCS-891**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **891**	RunNo: **1195**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34034** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.7	62.7	139			
Surr: DNOP	4.5		5.000		89.5	77.4	131			

Sample ID **1202931-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **TH-8 @ 6'**	Batch ID: **891**	RunNo: **1195**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34197** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.7	48.50	0	87.1	57.2	146			
Surr: DNOP	4.4		4.850		90.7	77.4	131			

Sample ID **1202931-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **TH-8 @ 6'**	Batch ID: **891**	RunNo: **1195**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34207** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	9.9	49.41	0	70.6	57.2	146	19.1	26.7	
Surr: DNOP	4.3		4.941		87.8	77.4	131	0	0	

Qualifiers:

- */X 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
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1202931**

02-Mar-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID **MB-889**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34762** 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	880		1,000		88.4	69.7	121			

Sample ID **LCS-889**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34766** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	118	98.5	133			
Surr: BFB	970		1,000		96.8	69.7	121			

Sample ID **1202931-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **TH-8 @ 6'**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.7	23.56	2.312	138	85.4	147			
Surr: BFB	1,200		942.5		131	69.7	121			S

Sample ID **1202931-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **TH-8 @ 6'**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34768** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	38	4.7	23.43	2.312	153	85.4	147	9.22	19.2	S
Surr: BFB	1,000		937.2		106	69.7	121	0	0	

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1202931**

02-Mar-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID **MB-889**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34834** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.6	85.3	139			

Sample ID **LCS-889**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34873** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	83.3	107			
Toluene	1.0	0.050	1.000	0	100	74.3	115			
Ethylbenzene	1.1	0.050	1.000	0	106	80.9	122			
Xylenes, Total	3.3	0.10	3.000	0	109	85.2	123			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	85.3	139			

Sample ID **1202932-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.047	0.9407	0	97.9	67.2	113			
Toluene	0.93	0.047	0.9407	0.006881	97.9	62.1	116			
Ethylbenzene	0.99	0.047	0.9407	0	105	67.9	127			
Xylenes, Total	3.1	0.094	2.822	0	108	60.6	134			
Surr: 4-Bromofluorobenzene	0.95		0.9407		101	85.3	139			

Sample ID **1202932-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **889**	RunNo: **1220**
Prep Date: **2/29/2012**	Analysis Date: **3/1/2012**	SeqNo: **34875** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.048	0.9569	0	103	67.2	113	6.87	14.3	
Toluene	1.0	0.048	0.9569	0.006881	105	62.1	116	8.99	15.9	
Ethylbenzene	1.1	0.048	0.9569	0	113	67.9	127	8.55	14.4	
Xylenes, Total	3.3	0.096	2.871	0	114	60.6	134	6.78	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9569		106	85.3	139	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- 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: BLAGG Work Order Number: 1202932

Received by/date: AT 02/29/12 AG 02/29/12

Logged By: **Michelle Garcia** 2/29/2012 9:30:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 2/29/2012 10:11:51 AM Michelle Garcia

Reviewed By: 2/29/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. 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)

17. 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: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. Box 87
BLOOMFIELD, NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush 3/2/12
Project Name: GCU 169E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.4

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1202931	BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	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)
2/24/12	0913	SOIL	TH-8 @ 6'	4oz x1	COOL	-1	X		X													
"	0957	"	TH-11 @ 6'	"	"	-2	X		X													
"	1111	"	TH-14 @ 4'	"	"	-3	X		X													

Date	Time	Relinquished by:	Received by:	Date	Time
2/28/12	1245	J. Blagg	Christine Walters	2/28/12	1245
2/28/12	1647	Christine Walters		2/29/12	730

Remarks: GRO & DRO ON 8015
N 1527575
ZANDERSGEN
JEFF PEACE

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

April 25, 2012

Jeff Blagg

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 169E OrderNo.: 1204708

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/18/2012 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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Chain-of-Custody Record

Client: BLAGG ENGINEERING
BP AMERICA
Mailing Address: P.O. Box 87
BLOOMFIELD, NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: GCU 169E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 1°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1204108	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	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)
4/13/12	0920	SOIL	31' N10E @ 9'	4 oz x1	COOL	-001	X		X									
"	0946	"	150' N36W @ 5'	"	"	-002	X		X									

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/17/12	1335			4/17/2012	1335
4/17/12	1619			04/18/12	1000

Remarks: GRO + DRO ON 8015B
N1527575
ZANDERSGEN
JEFF PEACE

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 31' N10E@9'
Project: GCU 169E
Collection Date: 4/13/2012 9:20:00 AM
Lab ID: 1204708-001
Matrix: SOIL
Received Date: 4/18/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/19/2012 10:13:15 AM
Surr: DNOP	90.4	77.4-131		%REC	1	4/19/2012 10:13:15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/20/2012 6:04:39 PM
Surr: BFB	99.8	69.7-121		%REC	1	4/20/2012 6:04:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	4/20/2012 6:04:39 PM
Toluene	ND	0.047		mg/Kg	1	4/20/2012 6:04:39 PM
Ethylbenzene	ND	0.047		mg/Kg	1	4/20/2012 6:04:39 PM
Xylenes, Total	ND	0.093		mg/Kg	1	4/20/2012 6:04:39 PM
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	4/20/2012 6:04:39 PM

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 150' N36W@5'
Project: GCU 169E
Collection Date: 4/13/2012 9:46:00 AM
Lab ID: 1204708-002
Matrix: SOIL
Received Date: 4/18/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/19/2012 10:40:22 AM
Surr: DNOP	90.2	77.4-131		%REC	1	4/19/2012 10:40:22 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/20/2012 6:33:29 PM
Surr: BFB	100	69.7-121		%REC	1	4/20/2012 6:33:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	4/20/2012 6:33:29 PM
Toluene	ND	0.049		mg/Kg	1	4/20/2012 6:33:29 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/20/2012 6:33:29 PM
Xylenes, Total	ND	0.098		mg/Kg	1	4/20/2012 6:33:29 PM
Surr: 4-Bromofluorobenzene	93.0	80-120		%REC	1	4/20/2012 6:33:29 PM

Qualifiers:

*/X	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
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#: **1204708**

25-Apr-12

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**MB-1592**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**1592**	RunNo:	**2225**
Prep Date:	**4/18/2012**	Analysis Date:	**4/19/2012**	SeqNo:	**61672** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		97.8	77.4	131			

Sample ID	**LCS-1592**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**1592**	RunNo:	**2225**
Prep Date:	**4/18/2012**	Analysis Date:	**4/19/2012**	SeqNo:	**61764** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	62.7	139			
Surr: DNOP	4.4		5.000		87.6	77.4	131			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204708**

25-Apr-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID	**MB-1584**	SampType:	**MBLK**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**1584**		RunNo:	**2242**				
Prep Date:	**4/18/2012**	Analysis Date:	**4/19/2012**		SeqNo:	**62626**	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	980		1,000		98.3	69.7	121			

Sample ID	**LCS-1584**	SampType:	**LCS**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**1584**		RunNo:	**2242**				
Prep Date:	**4/18/2012**	Analysis Date:	**4/19/2012**		SeqNo:	**62627**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	98.5	133			
Surr: BFB	1,100		1,000		105	69.7	121			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1204708**

25-Apr-12

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**MB-1584**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **1584**		RunNo: **2242**					
Prep Date:	**4/18/2012**	Analysis Date: **4/19/2012**		SeqNo: **62645**		Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		91.7	80	120			

Sample ID	**LCS-1584**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **1584**		RunNo: **2242**					
Prep Date:	**4/18/2012**	Analysis Date: **4/19/2012**		SeqNo: **62646**		Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.1	83.3	107			
Toluene	0.98	0.050	1.000	0	98.3	74.3	115			
Ethylbenzene	0.96	0.050	1.000	0	95.9	80.9	122			
Xylenes, Total	2.9	0.10	3.000	0	96.1	85.2	123			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	80	120			

Qualifiers:

*/X	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
R	RPD outside accepted recovery limits	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: BLAGG Work Order Number: 1204708

Received by/date: AG 04/18/12

Logged By: Michelle Garcia 4/18/2012 10:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 4/18/2012 10:20:31 AM Michelle Garcia

Reviewed By: IO 04/18/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Greyhound		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. 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:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

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

December 31, 2012

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX: (505) 632-3903

RE: GCU 169E OrderNo.: 1212923

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/20/2012 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. 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. 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. BOX 87
BLOOMFIELD NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: GCU 169E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: [ ]°C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1212923	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
12/14/12	1148	SOIL	180' N66W @ -4'	4oz x1	COOL	-001	X		X									X				

Date: 12/19/12 Time: 1120 Relinquished by: [signature] Received by: [signature] Date: 12/19/12 Time: 1120
Date: 12/19/12 Time: 1610 Relinquished by: [signature] Received by: [signature] Date: 12/20/12 Time: 1020

Remarks: GRO + DRO ON 8015B
BILL BLAGG
BP CONTACT: J. PEACE

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, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 180' N66W@-4'
Project: GCU 169E
Collection Date: 12/14/2012 11:48:00 AM
Lab ID: 1212923-001
Matrix: SOIL
Received Date: 12/20/2012 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/26/2012 2:31:04 PM
Surr: DNOP	91.4	72.4-120		%REC	1	12/26/2012 2:31:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/21/2012 2:18:28 PM
Surr: BFB	93.7	84-116		%REC	1	12/21/2012 2:18:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.046		mg/Kg	1	12/21/2012 2:18:28 PM
Toluene	ND	0.046		mg/Kg	1	12/21/2012 2:18:28 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/21/2012 2:18:28 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/21/2012 2:18:28 PM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	12/21/2012 2:18:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	5.7	1.5		mg/Kg	1	12/27/2012 2:53:29 PM

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
P	Sample pH greater than 2	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#: **1212923**

31-Dec-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID: **MB-5456**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **5456**	RunNo: **7748**							
Prep Date: **12/27/2012**	Analysis Date: **12/27/2012**	SeqNo: **225121**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-5456**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **5456**	RunNo: **7748**							
Prep Date: **12/27/2012**	Analysis Date: **12/27/2012**	SeqNo: **225122**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Sample ID: **1212752-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **5456**	RunNo: **7748**							
Prep Date: **12/27/2012**	Analysis Date: **12/27/2012**	SeqNo: **225125**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	52	7.5	15.00	39.15	83.7	64.4	117			

Sample ID: **1212752-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **5456**	RunNo: **7748**							
Prep Date: **12/27/2012**	Analysis Date: **12/27/2012**	SeqNo: **225126**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	51	7.5	15.00	39.15	77.8	64.4	117	1.73	20	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212923**

31-Dec-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID: **MB-5421**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **5421**	RunNo: **7701**
Prep Date: **12/26/2012**	Analysis Date: **12/26/2012**	SeqNo: **223834** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.4	72.4	120			

Sample ID: **LCS-5421**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **5421**	RunNo: **7701**
Prep Date: **12/26/2012**	Analysis Date: **12/26/2012**	SeqNo: **223839** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		80.1	72.4	120			

Sample ID: **1212832-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **5378**	RunNo: **7701**
Prep Date: **12/20/2012**	Analysis Date: **12/26/2012**	SeqNo: **224116** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	49.75	0	80.4	12.6	148			
Surr: DNOP	4.0		4.975		81.1	72.4	120			

Sample ID: **1212832-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **5378**	RunNo: **7701**
Prep Date: **12/20/2012**	Analysis Date: **12/26/2012**	SeqNo: **224117** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.8	49.21	0	99.1	12.6	148	19.8	22.5	
Surr: DNOP	4.1		4.921		83.2	72.4	120	0	0	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212923**

31-Dec-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID: **MB-5389**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **5389**	RunNo: **7673**
Prep Date: **12/20/2012**	Analysis Date: **12/21/2012**	SeqNo: **223541** 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	930		1000		93.4	84	116			

Sample ID: **LCS-5389**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5389**	RunNo: **7673**
Prep Date: **12/20/2012**	Analysis Date: **12/21/2012**	SeqNo: **223547** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.7	74	117			
Surr: BFB	980		1000		98.4	84	116			

Sample ID: **1212832-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5389**	RunNo: **7673**
Prep Date: **12/20/2012**	Analysis Date: **12/21/2012**	SeqNo: **223569** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.78	0	100	70	130			
Surr: BFB	980		991.1		98.6	84	116			

Sample ID: **1212832-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5389**	RunNo: **7673**
Prep Date: **12/20/2012**	Analysis Date: **12/21/2012**	SeqNo: **223570** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.73	0	95.9	70	130	4.48	22.1	
Surr: BFB	990		989.1		99.7	84	116	0	0	

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
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212923**

31-Dec-12

Client: Blagg Engineering

Project: GCU 169E

Sample ID: **MB-5389** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **5389** RunNo: **7673**

Prep Date: **12/20/2012** Analysis Date: **12/21/2012** SeqNo: **223610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: **LCS-5389** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **5389** RunNo: **7673**

Prep Date: **12/20/2012** Analysis Date: **12/21/2012** SeqNo: **223611** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: **1212922-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **5389** RunNo: **7673**

Prep Date: **12/20/2012** Analysis Date: **12/21/2012** SeqNo: **223615** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9690	0	110	67.2	113			
Toluene	1.1	0.048	0.9690	0	111	62.1	116			
Ethylbenzene	1.1	0.048	0.9690	0	113	67.9	127			
Xylenes, Total	3.3	0.097	2.907	0	113	60.6	134			
Surr: 4-Bromofluorobenzene	1.1		0.9690		109	80	120			

Sample ID: **1212922-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **5389** RunNo: **7673**

Prep Date: **12/20/2012** Analysis Date: **12/21/2012** SeqNo: **223616** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9699	0	106	67.2	113	4.24	14.3	
Toluene	1.0	0.048	0.9699	0	107	62.1	116	2.75	15.9	
Ethylbenzene	1.1	0.048	0.9699	0	110	67.9	127	2.08	14.4	
Xylenes, Total	3.2	0.097	2.910	0	109	60.6	134	2.99	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9699		105	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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: BLAGG — Work Order Number: 1212923

Received by/date: JB 12/20/12

Logged By: **Michelle Garcia** 12/20/2012 10:20:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 12/20/2012 1:51:03 PM Michelle Garcia

Reviewed By: 12/20/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. 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)

17. 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: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

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

January 09, 2013

Jeff Blagg

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 169E OrderNo.: 1301125

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/5/2013 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. 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. 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.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. BOX 87
BLOOMFIELD NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush BY TUES 1/8/2013
Project Name: GCU 169E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.0

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

Date	Time	Matrix	Sample Request ID	Container Type and # (AT 01/07/13) MeOH Kits	Preservative Type	HEAL No 1301125	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
1/3/2013	1013	SOIL	162'N62W@-4'	4oz x 1	COOL	-001	X		X									X	
1/4/2013	0935	"	171'N65W@-4'	"	"	-002	X		X									X	
"	0943	"	135'N56W@-8'	"	"	-003	X		X									X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/4/2013	1133	J. Blagg	Christin Walters	1/4/2013	1133
1/4/13	1750	Christin Walters		1/5/13	12:05

Remarks: GRO & DRO ON 8015B
BILL BLAGG
BP CONTACT: JEFF PEACE

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 162' N62W@-4'
Project: GCU 169E
Collection Date: 1/3/2013 10:13:00 AM
Lab ID: 1301125-001
Matrix: SOIL
Received Date: 1/5/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/8/2013 12:43:41 PM
Surr: DNOP	82.5	72.4-120		%REC	1	1/8/2013 12:43:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/7/2013 4:34:45 PM
Surr: BFB	121	84-116	S	%REC	1	1/7/2013 4:34:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	1/7/2013 4:34:45 PM
Toluene	ND	0.050		mg/Kg	1	1/7/2013 4:34:45 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/7/2013 4:34:45 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/7/2013 4:34:45 PM
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	1/7/2013 4:34:45 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	15		mg/Kg	10	1/7/2013 12:02:20 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 171' N65W@-4'
Project: GCU 169E
Collection Date: 1/4/2013 9:35:00 AM
Lab ID: 1301125-002
Matrix: SOIL
Received Date: 1/5/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/8/2013 1:05:24 PM
Surr: DNOP	88.4	72.4-120		%REC	1	1/8/2013 1:05:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/7/2013 5:03:29 PM
Surr: BFB	109	84-116		%REC	1	1/7/2013 5:03:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	1/7/2013 5:03:29 PM
Toluene	ND	0.050		mg/Kg	1	1/7/2013 5:03:29 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/7/2013 5:03:29 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/7/2013 5:03:29 PM
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	1/7/2013 5:03:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	15		mg/Kg	10	1/7/2013 12:14:44 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 135' N56W@-8'
Project: GCU 169E
Collection Date: 1/4/2013 9:43:00 AM
Lab ID: 1301125-003
Matrix: SOIL
Received Date: 1/5/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/8/2013 1:27:14 PM
Surr: DNOP	84.2	72.4-120		%REC	1	1/8/2013 1:27:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/7/2013 5:32:24 PM
Surr: BFB	115	84-116		%REC	1	1/7/2013 5:32:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	0.14	0.050		mg/Kg	1	1/7/2013 5:32:24 PM
Toluene	ND	0.050		mg/Kg	1	1/7/2013 5:32:24 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/7/2013 5:32:24 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/7/2013 5:32:24 PM
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/7/2013 5:32:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	7.5		mg/Kg	5	1/7/2013 12:27:08 PM

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
P	Sample pH greater than 2	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#: **1301125**

09-Jan-13

Client: Blagg Engineering

Project: GCU 169E

Sample ID	**MB-5549**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **5549**			RunNo: **7897**					
Prep Date:	**1/7/2013**	Analysis Date: **1/7/2013**			SeqNo: **228861**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-5549**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **5549**			RunNo: **7897**					
Prep Date:	**1/7/2013**	Analysis Date: **1/7/2013**			SeqNo: **228862**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Sample ID	**1301122-001BMS**	SampType: **MS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **5549**			RunNo: **7897**					
Prep Date:	**1/7/2013**	Analysis Date: **1/7/2013**			SeqNo: **228864**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	13.10	73.9	64.4	117			

Sample ID	**1301122-001BMSD**	SampType: **MSD**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **5549**			RunNo: **7897**					
Prep Date:	**1/7/2013**	Analysis Date: **1/7/2013**			SeqNo: **228865**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	13.10	66.8	64.4	117	0	20	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301125**

09-Jan-13

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**MB-5547**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**5547**	RunNo:	**7877**					
Prep Date:	**1/7/2013**	Analysis Date:	**1/7/2013**	SeqNo:	**228563**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.8	72.4	120			

Sample ID	**LCS-5547**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**5547**	RunNo:	**7877**					
Prep Date:	**1/7/2013**	Analysis Date:	**1/7/2013**	SeqNo:	**228575**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.1	47.4	122			
Surr: DNOP	4.2		5.000		83.5	72.4	120			

Sample ID	**1301113-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID:	**5547**	RunNo:	**7903**					
Prep Date:	**1/7/2013**	Analysis Date:	**1/8/2013**	SeqNo:	**229358**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	49.75	0	81.7	12.6	148			
Surr: DNOP	3.9		4.975		79.2	72.4	120			

Sample ID	**1301113-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID:	**5547**	RunNo:	**7903**					
Prep Date:	**1/7/2013**	Analysis Date:	**1/8/2013**	SeqNo:	**229359**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.9	49.55	0	85.4	12.6	148	4.10	22.5	
Surr: DNOP	4.3		4.955		86.4	72.4	120	0	0	

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
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301125**

09-Jan-13

Client: Blagg Engineering

Project: GCU 169E

Sample ID	**100NG BTEX LCS**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **R7882**		RunNo: **7882**					
Prep Date:		Analysis Date: **1/7/2013**		SeqNo: **228839**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	**1301122-001AMS**	SampType: **MS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **R7882**		RunNo: **7882**					
Prep Date:		Analysis Date: **1/7/2013**		SeqNo: **228841**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.050	0.6129	0	101	67.2	113			
Toluene	0.62	0.050	0.6129	0	102	62.1	116			
Ethylbenzene	0.63	0.050	0.6129	0	104	67.9	127			
Xylenes, Total	1.9	0.10	1.839	0	103	60.6	134			
Surr: 4-Bromofluorobenzene	0.66		0.6129		108	80	120			

Sample ID	**1301122-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **R7882**		RunNo: **7882**					
Prep Date:		Analysis Date: **1/7/2013**		SeqNo: **228842**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.050	0.6129	0	101	67.2	113	0.769	14.3	
Toluene	0.62	0.050	0.6129	0	102	62.1	116	0.0364	15.9	
Ethylbenzene	0.64	0.050	0.6129	0	104	67.9	127	0.458	14.4	
Xylenes, Total	1.9	0.10	1.839	0	103	60.6	134	0.403	12.6	
Surr: 4-Bromofluorobenzene	0.68		0.6129		111	80	120	0	0	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

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: BLAGG Work Order Number: 1301125

Received by/date: AT 01/07/13

Logged By: Anne Thorne 1/5/2013 12:00:00 PM Anne Thorne

Completed By: Anne Thorne 1/7/2013 Anne Thorne

Reviewed By: MG 01/07/13

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. 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)

17. 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: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

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

January 15, 2013

Jeff Blagg

Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 169E OrderNo.: 1301371

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/11/2013 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. 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. 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.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1301371**
Date Reported: **1/15/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 129'N26W@-6'
Project: GCU 169E
Collection Date: 1/10/2013 10:45:00 AM
Lab ID: 1301371-001
Matrix: MEOH (SOIL)
Received Date: 1/11/2013 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/12/2013 2:49:44 PM
Surr: DNOP	101	72.4-120		%REC	1	1/12/2013 2:49:44 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/11/2013 4:03:27 PM
Surr: BFB	109	84-116		%REC	1	1/11/2013 4:03:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	1/11/2013 4:03:27 PM
Toluene	ND	0.050		mg/Kg	1	1/11/2013 4:03:27 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/11/2013 4:03:27 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/11/2013 4:03:27 PM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	1/11/2013 4:03:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	8.8	1.5		mg/Kg	1	1/11/2013 1:46:53 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 90'N20W@-8'
Project: GCU 169E
Collection Date: 1/10/2013 1:04:00 PM
Lab ID: 1301371-002
Matrix: MEOH (SOIL)
Received Date: 1/11/2013 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/12/2013 3:16:42 PM
Surr: DNOP	102	72.4-120		%REC	1	1/12/2013 3:16:42 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/11/2013 4:32:16 PM
Surr: BFB	105	84-116		%REC	1	1/11/2013 4:32:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	1/11/2013 4:32:16 PM
Toluene	ND	0.050		mg/Kg	1	1/11/2013 4:32:16 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/11/2013 4:32:16 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/11/2013 4:32:16 PM
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/11/2013 4:32:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	13	1.5		mg/Kg	1	1/11/2013 2:11:44 PM

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 60'N20W@-8'
Project: GCU 169E
Collection Date: 1/10/2013 2:21:00 PM
Lab ID: 1301371-003
Matrix: MEOH (SOIL)
Received Date: 1/11/2013 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/12/2013 3:43:39 PM
Surr: DNOP	103	72.4-120		%REC	1	1/12/2013 3:43:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/11/2013 5:00:59 PM
Surr: BFB	99.7	84-116		%REC	1	1/11/2013 5:00:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	1/11/2013 5:00:59 PM
Toluene	ND	0.050		mg/Kg	1	1/11/2013 5:00:59 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/11/2013 5:00:59 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/11/2013 5:00:59 PM
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	1/11/2013 5:00:59 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	5.8	1.5		mg/Kg	1	1/11/2013 2:36:33 PM

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
P	Sample pH greater than 2	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#: **1301371**

15-Jan-13

Client: Blagg Engineering

Project: GCU 169E

Sample ID	**MB-5641**	SampType: **MBLK**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **5641**		RunNo: **8017**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**		SeqNo: **231933**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-5641**	SampType: **LCS**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **5641**		RunNo: **8017**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**		SeqNo: **231934**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

Sample ID	**1301334-002AMS**	SampType: **MS**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **5641**		RunNo: **8017**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**		SeqNo: **231939**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.624	84.3	64.4	117			

Sample ID	**1301334-002AMSD**	SampType: **MSD**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **5641**		RunNo: **8017**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**		SeqNo: **231940**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.624	84.2	64.4	117	0.111	20	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301371**

15-Jan-13

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**MB-5643**	SampType: **MBLK**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID: **5643**			RunNo: **7992**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**			SeqNo: **231421**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		96.1	72.4	120			

Sample ID	**LCS-5643**	SampType: **LCS**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID: **5643**			RunNo: **7992**					
Prep Date:	**1/11/2013**	Analysis Date: **1/11/2013**			SeqNo: **231480**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	47.4	122			
Surr: DNOP	4.5		5.000		89.9	72.4	120			

Sample ID	**1301334-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **5643**			RunNo: **7975**					
Prep Date:	**1/11/2013**	Analysis Date: **1/12/2013**			SeqNo: **232315**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.9	49.26	0	78.0	12.6	148			
Surr: DNOP	5.0		4.926		101	72.4	120			

Sample ID	**1301334-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **5643**			RunNo: **7975**					
Prep Date:	**1/11/2013**	Analysis Date: **1/12/2013**			SeqNo: **232316**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.8	48.92	0	86.6	12.6	148	9.73	22.5	
Surr: DNOP	5.0		4.892		103	72.4	120	0	0	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301371**

15-Jan-13

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**231959**	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	960		1000		96.3	84	116			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**231968**	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	108	74	117			
Surr: BFB	1000		1000		103	84	116			

Sample ID	**1301369-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015B: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**231971**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	19.07	2.059	105	70	130			
Surr: BFB	850		762.6		112	84	116			

Sample ID	**1301369-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015B: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**231972**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	19.07	2.059	105	70	130	0.622	22.1	
Surr: BFB	860		762.6		113	84	116	0	0	

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
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1301371**

15-Jan-13

Client: Blagg Engineering
Project: GCU 169E

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**232037**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**232040**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	**1301370-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**232045**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.050	0.7074	0	105	67.2	113			
Toluene	0.74	0.050	0.7074	0	105	62.1	116			
Ethylbenzene	0.75	0.050	0.7074	0	106	67.9	127			
Xylenes, Total	2.2	0.10	2.122	0	105	60.6	134			
Surr: 4-Bromofluorobenzene	0.79		0.7074		112	80	120			

Sample ID	**1301370-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**R8003**	RunNo:	**8003**					
Prep Date:		Analysis Date:	**1/11/2013**	SeqNo:	**232046**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.050	0.7074	0	102	67.2	113	2.47	14.3	
Toluene	0.72	0.050	0.7074	0	102	62.1	116	2.64	15.9	
Ethylbenzene	0.73	0.050	0.7074	0	103	67.9	127	3.08	14.4	
Xylenes, Total	2.2	0.10	2.122	0	103	60.6	134	1.79	12.6	
Surr: 4-Bromofluorobenzene	0.77		0.7074		110	80	120	0	0	

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
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

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: BLAGG Work Order Number: 1301371

Received by/date: JB 01/11/13

Logged By: Ashley Gallegos 1/11/2013 11:00:00 AM AG

Completed By: Ashley Gallegos 1/11/2013 11:22:24 AM AG

Reviewed By: MG 01/11/13

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Courier		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. 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:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.0	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. BOX 87
BLOOMFIELD, NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time: By Monday 1/14/2013
☐ Standard ☒ Rush
Project Name: GCU 169E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 4°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1301371	BTEX + ~~MTBE~~ + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
10/2013	1045	SOIL	129' N26W @ -6'	4 oz x1	Cool	-001	X		X									X				
"	1304	"	90' N20W @ -8'	"	"	-002	X		X									X				
"	1421	"	60' N20W @ -8'	"	"	-003	X		X									X				

Date: 1/10/13 Time: 1540 Relinquished by: Jeff Blagg Received by: Christine Walker Date 1/10/13 Time 1540
Date: 1/10/13 Time: 1751 Relinquished by: Christine Walker Received by: [signature] Date 1/11/13 Time 0700

Remarks: GRO + DRO ON 8015B
BILL BLAGG
BP CONTACT: JEFF PEACE