3R – 038

11 / 12 / 2015

GWMR

bp

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

November 12, 2015

Glenn Von Gonten
Senior Hydrologist
New Mexico Oil Conservation Division
Environmental Bureau
1220 St. Francis Drive
Santa Fe, NM 87505

Re: Request for Permanent Closure
Martinez Gas Com G 001
API No. 3004512172; Unit letter A, Section 24, T29N, R10W; GPS: 36.714499°, -107.829341°

Dear Mr. Von Gonten :

BP America Production Company has retained Blagg Engineering, Inc. to conduct environmental monitoring of groundwater at the Martinez GC G # 1 currently operated by Cross Timbers Oil Company (CTOC). CTOC acquired the well site in January, 1998, however, BP has accepted the environmental obligation associated with soil and groundwater contamination that occurred prior to the change of well ownership. The site is located on private property.

After the initial pit closure cleanup efforts at the site, an air sparge/vacuum extraction system was utilized in aggressively remediating on-site hydrocarbon contamination in groundwater. The system was designed to treat soils and groundwater that had not been remediated by excavation. A replacement air sparge system was installed in February, 1999 to address groundwater contamination previously identified at other areas on the well pad.

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 of May 2013.

If you have any questions concerning this document, please contact either John Ritchie (john.ritchie@bp.com) or 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, Environmental Specialist, NMOCD District III Office, 1000 Rio Brazos Road Aztec, NM

BP AMERICA PRODUCTION CO.

GROUNDWATER REMEDIATION REPORT

MARTINEZ GC G # 1
(A) SECTION 24, T29N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
NEW MEXICO OIL CONSERVATION DIVISION
1220 ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87504

NOVEMBER 2015

PREPARED BY:
BLAGG ENGINEERING, INC.

Consulting Petroleum / Reclamation Services
P.O. Box 87
Bloomfield, New Mexico 87413

BP AMERICA PRODUCTION COMPANY

Martinez Gas Com G # 1 - Abandoned Pit

NE¼ NE¼, Sec. 24, T29N, R10W

Pit Closure Date: July-August 1994

Monitor Well Installation Date: October 2012

Monitor Well Sampling Dates: 5/28/13, 8/31/13, 12/17/13, 3/10/14, 6/25/14, 8/23/14, 11/24/14, 3/12/15

Pit Closure and Background:

The site's abandoned pit is located off-site and on private property. The closure was conducted during July and August 1994 by removing impacted soils via excavation. Groundwater impact was identified within the source area during the pit closure activity and was reported to the New Mexico Oil Conservation Division's (**NMOCD**) Santa Fe office. Documentation for this work and subsequent groundwater monitoring data for the site has been previously submitted for NMOCD review. The reporting herein is for site monitoring of four (4) groundwater monitor wells (Bore Logs attached) from May 2013 to March 2015 to address the off-site abandoned pit area (Figure 1). This pit was acknowledged by NMOCD in its June 6, 2001 correspondence letter under section B which can be reviewed online at NMOCD's Administrative/Environmental Order number 3RP-38-0 (filename: penv000003rp38_0001.pdf).

Groundwater Monitor Well Sampling Procedures:

A two (2) inch submersible electrical pump with new, clear vinyl tubing was utilized during all eight (8) quarterly sampling events. The groundwater samples were collected following US EPA: SW-846 protocol, were placed into laboratory supplied containers with appropriate preservative, and stored in an ice chest for express delivery to an analytical laboratory for testing under strict chain-of-custody procedures. Analytical testing for BTEX per US EPA Method 8021B was conducted.

Fluids generated during monitor well purging was managed by discarding into the nearest BP below-grade tank (**BGT**) located at the Sammons Gas Com F 001 well site (Unit letter A, Section 18, T29N, R9W). The BGT contents are eventually disposed through approved NMOCD operational procedures for removal of produced water and/or fluids.

Water Quality and Gradient Information:

BP initiated quarterly sampling and testing pursuant to BP's NMOCD approved Groundwater Management Plan (**GMP**) in May 2013. A historical summary of laboratory analytical BTEX results are included within the table on the following page. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included within this report.

An aerial map (Figure 1) shows the four (4) monitor wells relative position to the previously excavated pit perimeter. Groundwater contour maps generated during previous site monitoring and sampling had predominantly demonstrated a southeast flow direction.

Summary and/or Recommendations:

Hydrocarbon impacted soils and groundwater at the site appear to have been remediated via excavation and natural attenuation. Upon review of the overall lab results, the benzene level revealed in MW #1A of 13 micrograms/Liter (ug/L) from the March 10, 2014 sampling event does not appear to necessitate an additional down gradient well relative to its position and is anomalous to the majority of the previous and subsequent lab results for benzene.

Monitor wells MW #1A and MW #2A tested at non-detectable or below the New Mexico Water Quality Controls Commission's groundwater BTEX standards for four (4) consecutive sampling events and met the requirements of section 2.1 of BP's GMP. MW #3A and MW #4A met the GMP requirements pursuant to section 2.3. All monitor wells met section 2.2 of the GMP for anion constituents. Permanent closure of the abandoned pit is recommended. Site monitor wells are scheduled to be abandoned 60 days following receipt by NMOCD of this final report. Monitor well abandonment will adhere to section 6.2 of the GMP.

BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX / GENERAL CHEMISTRY RESULTS

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

REVISED DATE: August 6 , 2015
Submitted by Blagg Engineering, Inc.

								BTEX US EPA METHOD 8021B or 8260B			
SAMPLE DATE	WELL NAME / NUMBER	DEPTH TO WATER (ft)	WELL DEPTH (ft)	TDS (mg/L)	CONDUCT. (umhos)	pH	FREE PHASE PRODUCT (ft)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL BENZENE (ppb)	TOTAL XYLENES (ppb)
05/28/13	MW #1A	1.96	11.50	see below	800	7.44		**3.6**	ND	**2.6**	**8.4**
08/31/13		0.00			900	7.60		ND	ND	ND	ND
12/17/13		1.80			700	7.43		**5.4**	ND	**1.1**	**16**
03/10/14		3.20			900	7.48		**13**	ND	**5.7**	**45**
06/27/14		0.58			700	7.39		ND	ND	ND	ND
08/23/14		0.10			800	7.30		ND	ND	ND	ND
11/24/14		1.75			700	7.53		ND	ND	ND	ND
03/13/15		3.42			800	7.11		**10**	ND	ND	**4.0**
05/28/13	MW #2A	0.51	11.00	see below	700	7.54		ND	ND	ND	ND
08/31/13		0.00			800	7.60		ND	ND	ND	ND
12/17/13		0.32			700	7.49		ND	ND	ND	ND
03/10/14		1.72			800	7.56		ND	ND	ND	ND
05/28/13	MW #3A	1.14	14.15	see below	800	7.38		ND	ND	ND	ND
05/28/13	MW #4A	1.39	14.05	see below	700	7.32		ND	ND	ND	ND
03/10/14		2.45			800	7.51		ND	ND	ND	ND
							NMWQCC GROUNDWATER STANDARDS	10	750	750	620

SAMPLE DATE	WELL NAME /NUMBER	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Iron (mg/L)	TDS (mg/L)
05/28/13	MW #1A	ND	**9.0**	**56**	**8.7**	**3.9**	**460**
05/28/13	MW #2A	**0.50**	**6.8**	**70**	**1.5**	**3.0**	**440**
05/28/13	MW #3A	**0.39**	**5.2**	**100**	ND	ND	**428**
05/28/13	MW #4A	**0.40**	**8.1**	**100**	ND	**0.48**	**484**
NMWQCC GROUNDWATER STANDARDS		1.60	250	600	10	1.0	1,000

NOTES :

1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .
2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .
3) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .
4) NMWQCC INDICATES NEW MEXICO WATER QUALITY CONTROL COMMISSION.
5) pH NMWQCC standards range between 6 -9
6) TDS - Total Dissolved Solids
7) ppb - Parts per billion
8) mg/L - Milligrams per liter


FIGURE 1
BP - Martinez GC G 001
Abandoned Pit & Monitor Well Locations
Imagery Date: 3/15/2015
TO
WELL SITE
MW #2A
MW #1A
MW #3A
Abandoned pit
excavation perimeter
MW #4A
Google earth
N
70 ft

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

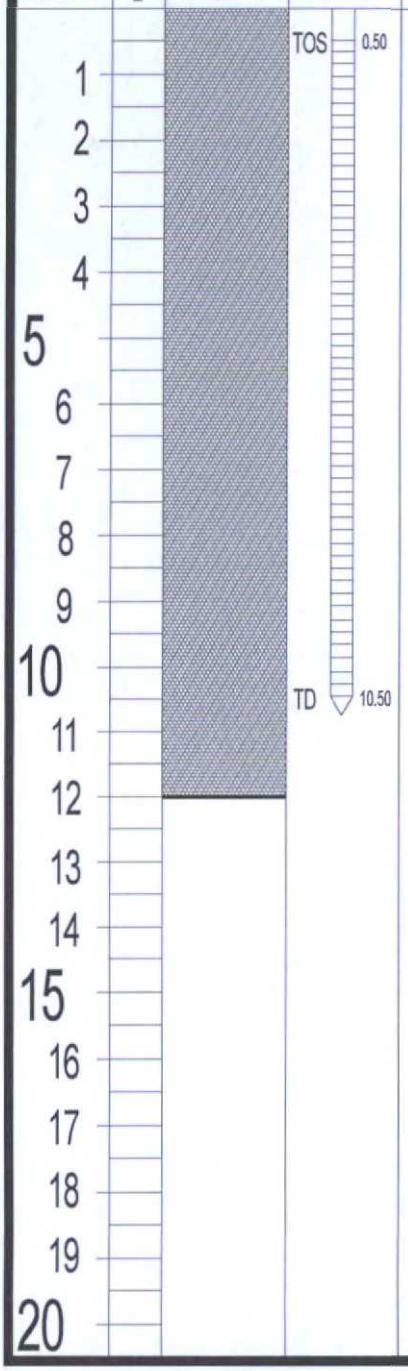
MW #1A

BORE / TEST HOLE REPORT

BORING #.....	BH-4
MW #.....	1A
PAGE #.....	1
DATE STARTED	10/12/12
DATE FINISHED	10/12/12
OPERATOR.....	KP
PREPARED BY	NJV

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	MARTINEZ GC G #1 - ABANDONED PIT UNIT A, SEC. 24, T29N, R10W
CONTRACTOR:	BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75)
BORING LOCATION:	36.714551°N, 107.829521°W (Google Earth Imagery: 3/15/2015)

DEPTH FEET | INTERVAL | LITHOLOGY INTERVAL | MW SCHEMATIC



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROXIMATELY 1.00 FT. ABOVE GRADE.

LIGHT MEDIUM GRAY SAND TO SILTY SAND, NON COHESIVE, FIRM, SLIGHTLY MOIST PHASING INTO SATURATED, VERY SLIGHT APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY FROM AUGER CUTTINGS OF TOP HALF OF BORING (0.0 - 12.0 FT. BELOW GRADE).

TOTAL LENGTH OF PIPING APPROXIMATELY 11.50 FEET.

NOTE: ▒ - SAND TO SILTY SAND.
TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

Monitor well consist of 2 inch PVC piping - casing from 1.00 feet above grade to 0.50 feet below grade, 0.010 slotted screen between 0.50 to 10.50 feet below grade, sanded annular to surface, flush mount cover concreted at surface to 1.50 feet above grade, secured casing with locking cap and padlock.

DRAWING: MARTINEZ GC G 1-MW1A.SKF | DATE: 11/03/15 | DWN BY: NJV

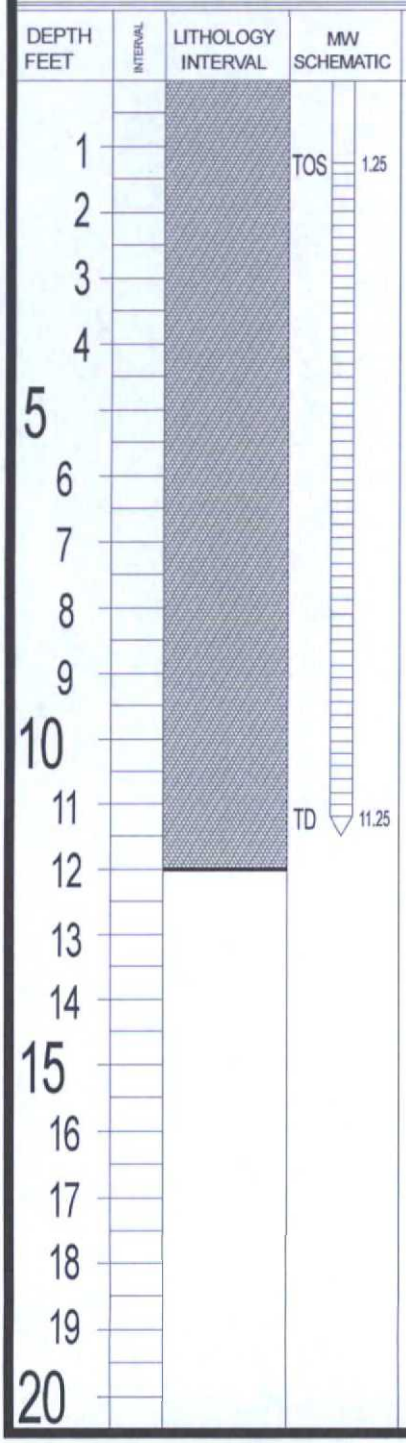
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #2A

BORE / TEST HOLE REPORT

BORING #.....	BH-2
MW #.....	2A
PAGE #.....	1
DATE STARTED	10/11/12
DATE FINISHED	10/11/12
OPERATOR.....	KP
PREPARED BY	NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: MARTINEZ GC G #1 - ABANDONED PIT UNIT A, SEC. 24, T29N, R10W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 36.714499°N, 107.829341°W (Google Earth Imagery: 3/15/2015)



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 0.25 FT. BELOW GRADE.

LIGHT MEDIUM GRAY SAND TO SILTY SAND, NON COHESIVE, FIRM, SLIGHTLY MOIST PHASING INTO SATURATED, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY FROM AUGER CUTTINGS (0.0 - 12.0 FT. BELOW GRADE).

TOTAL LENGTH OF PIPING APPROXIMATELY 11.00 FEET.

NOTE: - SAND TO SILTY SAND.
TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

Monitor well consist of 2 inch PVC piping - casing from 0.25 to 1.25 feet below grade, 0.010 slotted screen between 1.25 to 11.25 feet below grade, sanded annular to 1.00 feet below grade, bentonite chips from 0.50 to 1.00 feet below grade, flush mount cover concreted at surface, secured casing with locking cap and padlock.

DRAWING: MARTINEZ GC G 1-MW2A.SKF | DATE: 11/03/15 | DWN BY: NJV

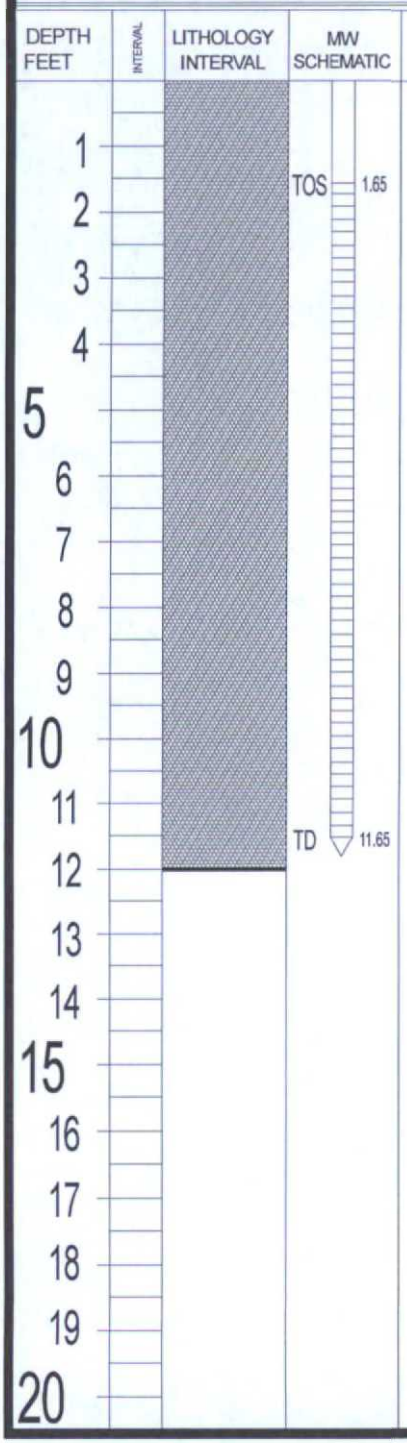
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #3A

BORE / TEST HOLE REPORT

BORING #.....	BH-3
MW #.....	3A
PAGE #.....	3
DATE STARTED	10/12/12
DATE FINISHED	10/12/12
OPERATOR.....	KP
PREPARED BY	NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: MARTINEZ GC G #1 - ABANDONED PIT UNIT A, SEC. 24, T29N, R10W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 36.714540°N, 107.829208°W (Google Earth Imagery: 3/15/2015)



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.50 FT. ABOVE GRADE.

LIGHT MEDIUM GRAY SAND TO SILTY SAND, NON COHESIVE, FIRM, SLIGHTLY MOIST PHASING INTO SATURATED, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY FROM AUGER CUTTINGS (0.0 - 12.0 FT. BELOW GRADE).

TOTAL LENGTH OF PIPING APPROXIMATELY 14.15 FEET.

NOTE: ▒ - SAND TO SILTY SAND.
TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

Monitor well consist of 2 inch PVC piping - casing from 2.50 feet above grade to 1.65 feet below grade, 0.010 slotted screen between 1.65 to 11.65 feet below grade, sanded annular to 1.00 feet below grade, bentonite chips from grade to 1.00 feet below grade, steel well protector installed for above-grade casing, concreted at surface, and secured with padlock.

DRAWING: MARTINEZ GC G 1-MW3A.SKF | DATE: 11/03/15 | DWN BY: NJV

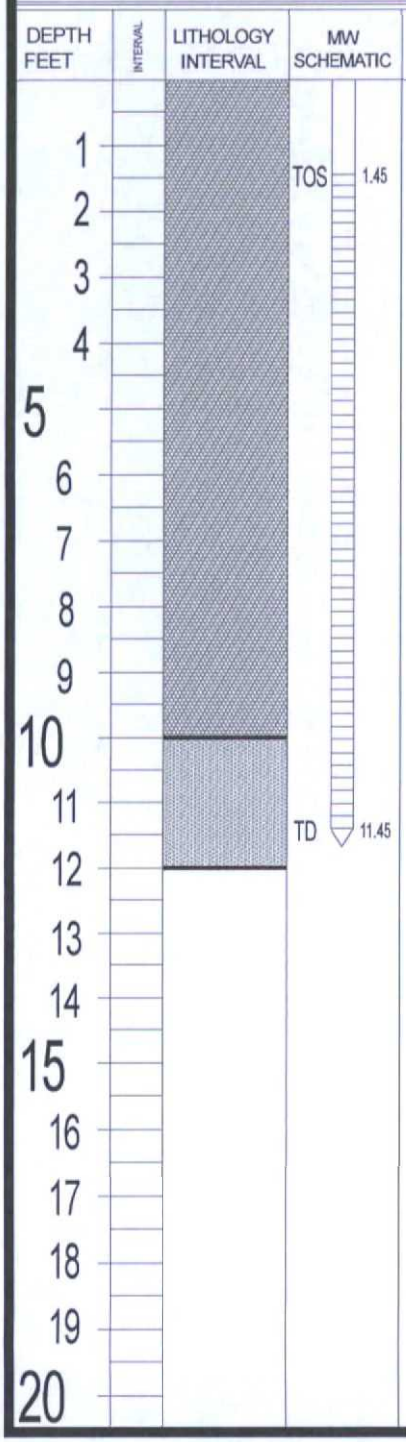
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW #4A

BORE / TEST HOLE REPORT

BORING #.....	BH-1
MW #.....	4A
PAGE #.....	4
DATE STARTED	10/11/12
DATE FINISHED	10/11/12
OPERATOR.....	KP
PREPARED BY	NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: MARTINEZ GC G #1 - ABANDONED PIT UNIT A, SEC. 24, T29N, R10W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 36.714393°N, 107.829328°W (Google Earth Imagery: 3/15/2015)



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROXIMATELY 2.60 FT. ABOVE GRADE.

LIGHT MEDIUM GRAY SAND TO SILTY SAND, NON COHESIVE, FIRM, SLIGHTLY MOIST PHASING INTO SATURATED, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY FROM AUGER CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).

SAME AS ABOVE EXCEPT WITH GRAVEL (10.0 - 12.0 FT. BELOW GRADE).

TOTAL LENGTH OF PIPING APPROXIMATELY 14.05 FEET.

NOTE:
- SAND TO SILTY SAND.
- SAND TO SILTY SAND AND GRAVEL.
- TOS - TOP OF SCREEN FROM GROUND SURFACE.
- TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

Monitor well consist of 2 inch PVC piping - casing from 2.60 feet above grade to 1.45 feet below grade, 0.010 slotted screen between 1.45 to 11.45 feet below grade, sanded annular to 1.00 feet below grade, bentonite chips from grade to 1.00 feet below grade, steel well protector installed for above-grade casing, concreted at surface, and secured with padlock.

DRAWING: MARTINEZ GC G 1-MW4A.SKF | DATE: 11/03/15 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : N / A

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : May 28, 2013

Filename : Martinez GC G 1 mw log 05-28-13.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.)
1A	100.00	98.04	1.96	11.50	1225	7.44	800		4.75
2A	98.46	97.95	0.51	11.00	1140	7.54	700		5.25
3A	98.55	97.41	1.14	14.15	1055	7.38	800		6.50
4A	98.79	97.40	1.39	14.05	1015	7.32	700		6.25
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	2,800		
			DATE & TIME =			05/28/13	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 ".

Surveyed monitor well tops on 10/17/12 . Installed # 2A & # 4A on 10 / 11 / 12, # 1A & # 3A on 10 / 12 / 12.
All wells initially developed on 05 / 24 / 13 . Excellent recovery in all . Collected samples from all wells for BTEX,
fluoride, chloride, sulfate, nitrate, iron, & total dissolved solids. 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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**9:15 AM**	temp.	**62 F**
off-site	**12:35 PM**	temp.	**73 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**ESE - E**

Analytical Report
Lab Order **1305B21**
Date Reported: **6/10/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Martinez GC G#1
Lab ID: 1305B21-001

Client Sample ID: MW # 1A
Collection Date: 5/28/2013 12:25:00 PM
Matrix: AQUEOUS **Received Date:** 5/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	3.6	1.0	P	µg/L	1	5/31/2013 3:05:20 PM	R11006
Toluene	ND	1.0	P	µg/L	1	5/31/2013 3:05:20 PM	R11006
Ethylbenzene	2.6	1.0	P	µg/L	1	5/31/2013 3:05:20 PM	R11006
Xylenes, Total	8.4	2.0	P	µg/L	1	5/31/2013 3:05:20 PM	R11006
Surr: 4-Bromofluorobenzene	95.4	69.4-129	P	%REC	1	5/31/2013 3:05:20 PM	R11006
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	ND	0.50		mg/L	5	5/31/2013 1:04:30 AM	R11002
Chloride	9.0	2.5		mg/L	5	5/31/2013 1:04:30 AM	R11002
Sulfate	56	2.5		mg/L	5	5/31/2013 1:04:30 AM	R11002
Nitrate+Nitrite as N	8.7	1.0		mg/L	5	5/31/2013 3:33:22 AM	R11002
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**	
Iron	3.9	0.10	*	mg/L	5	5/31/2013 2:49:40 PM	R11014
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	460	40.0		mg/L	1	6/5/2013 2:53:00 PM	7717

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Martinez GC G#1
Lab ID: 1305B21-002 **Matrix:** AQUEOUS

Client Sample ID: MW # 2A
Collection Date: 5/28/2013 11:40:00 AM
Received Date: 5/30/2013 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	5/31/2013 3:35:39 PM	R11006
Toluene	ND	1.0		µg/L	1	5/31/2013 3:35:39 PM	R11006
Ethylbenzene	ND	1.0		µg/L	1	5/31/2013 3:35:39 PM	R11006
Xylenes, Total	ND	2.0		µg/L	1	5/31/2013 3:35:39 PM	R11006
Surr: 4-Bromofluorobenzene	90.9	69.4-129		%REC	1	5/31/2013 3:35:39 PM	R11006
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.50	0.50		mg/L	5	5/31/2013 1:29:18 AM	R11002
Chloride	6.8	2.5		mg/L	5	5/31/2013 1:29:18 AM	R11002
Sulfate	70	2.5		mg/L	5	5/31/2013 1:29:18 AM	R11002
Nitrate+Nitrite as N	1.5	1.0		mg/L	5	5/31/2013 3:45:47 AM	R11002
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**	
Iron	3.0	0.10	*	mg/L	5	5/31/2013 3:01:56 PM	R11014
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	440	40.0		mg/L	1	6/5/2013 2:53:00 PM	7717

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 3A
Project: Martinez GC G#1
Collection Date: 5/28/2013 10:55:00 AM
Lab ID: 1305B21-003
Matrix: AQUEOUS
Received Date: 5/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0	P	µg/L	1	5/31/2013 4:05:44 PM	R11006
Toluene	ND	1.0	P	µg/L	1	5/31/2013 4:05:44 PM	R11006
Ethylbenzene	ND	1.0	P	µg/L	1	5/31/2013 4:05:44 PM	R11006
Xylenes, Total	ND	2.0	P	µg/L	1	5/31/2013 4:05:44 PM	R11006
Surr: 4-Bromofluorobenzene	91.0	69.4-129	P	%REC	1	5/31/2013 4:05:44 PM	R11006
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.39	0.10		mg/L	1	5/31/2013 1:54:07 AM	R11002
Chloride	5.2	0.50		mg/L	1	5/31/2013 1:54:07 AM	R11002
Sulfate	100	10		mg/L	20	5/31/2013 2:06:31 AM	R11002
Nitrate+Nitrite as N	ND	1.0		mg/L	5	5/31/2013 3:58:12 AM	R11002
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**	
Iron	ND	0.020		mg/L	1	5/31/2013 3:04:10 PM	R11014
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	428	40.0		mg/L	1	6/5/2013 2:53:00 PM	7717

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Martinez GC G#1
Lab ID: 1305B21-004 **Matrix:** AQUEOUS

Client Sample ID: MW # 4A
Collection Date: 5/28/2013 10:15:00 AM
Received Date: 5/30/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0	P	µg/L	1	5/31/2013 4:35:57 PM	R11006
Toluene	ND	1.0	P	µg/L	1	5/31/2013 4:35:57 PM	R11006
Ethylbenzene	ND	1.0	P	µg/L	1	5/31/2013 4:35:57 PM	R11006
Xylenes, Total	ND	2.0	P	µg/L	1	5/31/2013 4:35:57 PM	R11006
Surr: 4-Bromofluorobenzene	91.2	69.4-129	P	%REC	1	5/31/2013 4:35:57 PM	R11006
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.40	0.10		mg/L	1	5/31/2013 2:18:56 AM	R11002
Chloride	8.1	0.50		mg/L	1	5/31/2013 2:18:56 AM	R11002
Sulfate	100	10		mg/L	20	5/31/2013 2:56:09 AM	R11002
Nitrate+Nitrite as N	ND	1.0		mg/L	5	5/31/2013 4:10:37 AM	R11002
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**	
Iron	0.48	0.020	*	mg/L	1	5/31/2013 3:09:20 PM	R11014
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	484	40.0		mg/L	1	6/5/2013 2:53:00 PM	7717

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

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:
MARTINEZ GC G # 1

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 7.8

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 1305821	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 8270SIM)	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
5/28/13	1225	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
5/28/13	1225	WATER	MW # 1A	500 ml - 1	Cool									✓	✓					✓	
5/28/13	1225	WATER	MW # 1A	250 ml - 1	HNO_3 & Cool											✓				✓	
5/28/13	1225	WATER	MW # 1A	250 ml - 1	H_2SO_4												✓			✓	
5/28/13	1140	WATER	MW # 2A	40 ml VOA - 2	HCl & Cool	-002	✓													✓	
5/28/13	1140	WATER	MW # 2A	500 ml - 1	Cool									✓	✓					✓	
5/28/13	1140	WATER	MW # 2A	250 ml - 1	HNO_3 & Cool											✓				✓	
5/28/13	1140	WATER	MW # 2A	250 ml - 1	H_2SO_4												✓			✓	
5/28/13	1055	WATER	MW # 3A	40 ml VOA - 2	HCl & Cool	-003	✓													✓	
5/28/13	1055	WATER	MW # 3A	500 ml - 1	Cool									✓	✓					✓	
5/28/13	1055	WATER	MW # 3A	250 ml - 1	HNO_3 & Cool											✓				✓	
5/28/13	1055	WATER	MW # 3A	250 ml - 1	H_2SO_4												✓			✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/29/13	815		Christy Waelton	5/29/13	815
5/29/13	1742	Christy Waelton		05/30/13	1000

Remarks:

pg 1 of 2

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

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: MARTINEZ GC G # 1

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ nv

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.8

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. 1305321	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~~,SO_4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / ~~Nitrite N~~			Grab sample	5 pt. composite sample	
5/28/13	1015	WATER	MW # 4A	40 ml VOA - 2	HCl & Cool	-004	√													√		
5/28/13	1015	WATER	MW # 4A	500 ml - 1	Cool									√	√					√		
5/28/13	1015	WATER	MW # 4A	250 ml - 1	HNO_3 & Cool											√				√		
5/28/13	1015	WATER	MW # 4A	250 ml - 1	H_2SO_4												√			√		

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/29/13	815			5/29/13	815
5/29/13	1742			5/30/13	1000

Remarks: pg 2 of 2

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305B21**

10-Jun-13

Client: Blagg Engineering
Project: Martinez GC G#1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R11014**	RunNo: **11014**
Prep Date:	Analysis Date: **5/31/2013**	SeqNo: **311277** 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: **R11014**	RunNo: **11014**
Prep Date:	Analysis Date: **5/31/2013**	SeqNo: **311278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	102	85	115			

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
- 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

QC SUMMARY REPORT

WO#: 1305B21

Hall Environmental Analysis Laboratory, Inc.

10-Jun-13

Client: Blagg Engineering
Project: Martinez GC G#1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R11002**	RunNo: **11002**
Prep Date:	Analysis Date: **5/30/2013**	SeqNo: **311062** 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								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R11002**	RunNo: **11002**
Prep Date:	Analysis Date: **5/30/2013**	SeqNo: **311063** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.6	0.50	5.000	0	92.6	90	110			
Sulfate	9.4	0.50	10.00	0	93.7	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.7	90	110			

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
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305B21**

10-Jun-13

Client: Blagg Engineering
Project: Martinez GC G#1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R11006**	RunNo: **11006**
Prep Date:	Analysis Date: **5/31/2013**	SeqNo: **311533** 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		92.7	69.4	129			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R11006**	RunNo: **11006**
Prep Date:	Analysis Date: **5/31/2013**	SeqNo: **311534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	80	120			
Toluene	19	1.0	20.00	0	96.3	80	120			
Ethylbenzene	20	1.0	20.00	0	97.9	80	120			
Xylenes, Total	59	2.0	60.00	0	99.1	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		96.7	69.4	129			

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
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305B21**

10-Jun-13

Client: Blagg Engineering
Project: Martinez GC G#1

Sample ID **MB-7717**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **7717**	RunNo: **11094**
Prep Date: **6/3/2013**	Analysis Date: **6/5/2013**	SeqNo: **313923** 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-7717**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **7717**	RunNo: **11094**
Prep Date: **6/3/2013**	Analysis Date: **6/5/2013**	SeqNo: **313924** 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.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- 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: 1305B21 RcptNo: 1

Received by/date: 05/30/13

Logged By: Lindsay Mangin 5/30/2013 10:00:00 AM

Completed By: Lindsay Mangin 5/30/2013 10:11:56 AM

Reviewed By: IO 05/30/2013

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: 8 (<2 or >12 unless noted)

Adjusted? _____

Checked by: MG

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	2.8	Good	Yes			

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : August 31, 2013

Filename : Martinez GC G 1 mw log 08-31-13.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.)
1A	100.00		~0.00	11.50	1025	7.60	900	20.1	5.00
2A	98.46		~0.00	11.00	0945	7.60	800	18.9	5.00
3A	98.55	97.43	1.12	14.15	-	-	-	-	-
4A	98.79	98.47	0.32	14.05	-	-	-	-	-
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	2,800		
			DATE & TIME =			08/20/13	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 ".

Excellent recovery in MW #1A & #2A. Collected samples from #1A & #2A for BTEX using US EPA Method 8021B.
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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	8:45 AM	temp.	69 F
off-site	10:30 AM	temp.	75 F
sky cond.		Sunny	
wind speed	0 - 5	direct.	East

Analytical Report
Lab Order **1309152**
Date Reported: **9/12/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: MARTINEZ GC G # 1
Lab ID: 1309152-001 **Matrix:** AQUEOUS

Client Sample ID: MW # 1A
Collection Date: 8/31/2013 9:45:00 AM
Received Date: 9/5/2013 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	9/6/2013 4:43:24 PM	R13166
Toluene	ND	1.0		µg/L	1	9/6/2013 4:43:24 PM	R13166
Ethylbenzene	ND	1.0		µg/L	1	9/6/2013 4:43:24 PM	R13166
Xylenes, Total	ND	2.0		µg/L	1	9/6/2013 4:43:24 PM	R13166
Surr: 4-Bromofluorobenzene	103	85-136		%REC	1	9/6/2013 4:43:24 PM	R13166

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 # 2A
Project: MARTINEZ GC G # 1
Collection Date: 8/31/2013 10:25:00 AM
Lab ID: 1309152-002
Matrix: AQUEOUS
Received Date: 9/5/2013 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	9/6/2013 5:13:41 PM	R13166
Toluene	ND	1.0		µg/L	1	9/6/2013 5:13:41 PM	R13166
Ethylbenzene	ND	1.0		µg/L	1	9/6/2013 5:13:41 PM	R13166
Xylenes, Total	ND	2.0		µg/L	1	9/6/2013 5:13:41 PM	R13166
Surr: 4-Bromofluorobenzene	103	85-136		%REC	1	9/6/2013 5:13:41 PM	R13166

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		

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:
MARTINEZ GC G # 1

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. 1309152	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
8/31/13	0945	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-001	V													V	
8/31/13	1025	WATER	MW # 2A	40 ml VOA - 2	HCl & Cool	-002	V													V	

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/4/13	1516			9/4/13	1516
9/4/13	1717			09/05/13	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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1309152**

12-Sep-13

Client: Blagg Engineering
Project: MARTINEZ GC G # 1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R13166**	RunNo: **13166**
Prep Date:	Analysis Date: **9/6/2013**	SeqNo: **375561** 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		108	85	136			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R13166**	RunNo: **13166**
Prep Date:	Analysis Date: **9/6/2013**	SeqNo: **375562** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	80	120			
Toluene	20	1.0	20.00	0	101	80	120			
Ethylbenzene	20	1.0	20.00	0	102	80	120			
Xylenes, Total	62	2.0	60.00	0	104	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		110	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: 1309152 RcptNo: 1

Received by/date: 09/05/13

Logged By: Lindsay Mangin 9/5/2013 10:00:00 AM

Completed By: Lindsay Mangin 9/5/2013 12:41:23 PM

Reviewed By: 09/06/13

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 ✔	# 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	1.0	Good	Yes			

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : December 17, 2013

Filename : Martinez GC G 1 mw log 12-17-13.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.)
1A	100.00	98.20	1.80	11.50	1250	7.43	700	12.3	5.00
2A	98.46	98.14	0.32	11.00	1150	7.49	700	12.1	5.00
3A	98.55	97.38	1.17	14.15	-	-	-	-	-
4A	98.79	97.59	1.20	14.05	-	-	-	-	-
				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 ".

Excellent recovery in MW #1A & #2A. Collected samples from #1A & #2A for BTEX using US EPA Method 8021B.
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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**11:00 AM**	temp.	**33 F**
off-site	**1:00 PM**	temp.	**41 F**
sky cond.		**Sunny**	
wind speed	**0 - 5**	direct.	**SE**

Analytical Report
Lab Order **1312988**
Date Reported: **12/23/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: MARTINEZ GC G #1
Lab ID: 1312988-001 **Matrix:** AQUEOUS

Client Sample ID: MW #1A
Collection Date: 12/17/2013 12:50:00 PM
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	5.4	1.0		µg/L	1	12/22/2013 1:00:46 AM	R15667
Toluene	ND	1.0		µg/L	1	12/22/2013 1:00:46 AM	R15667
Ethylbenzene	1.1	1.0		µg/L	1	12/22/2013 1:00:46 AM	R15667
Xylenes, Total	16	2.0		µg/L	1	12/22/2013 1:00:46 AM	R15667
Surr: 4-Bromofluorobenzene	101	85-136		%REC	1	12/22/2013 1:00:46 AM	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 #2A
Project: MARTINEZ GC G #1
Collection Date: 12/17/2013 11:50:00 AM
Lab ID: 1312988-002
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	12/22/2013 1:30:54 AM	R15667
Toluene	ND	1.0		µg/L	1	12/22/2013 1:30:54 AM	R15667
Ethylbenzene	ND	1.0		µg/L	1	12/22/2013 1:30:54 AM	R15667
Xylenes, Total	ND	2.0		µg/L	1	12/22/2013 1:30:54 AM	R15667
Surr: 4-Bromofluorobenzene	97.9	85-136		%REC	1	12/22/2013 1:30:54 AM	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		

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: **MARTINEZ GC G # 1**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

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. 1312988	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
12/17/13	1250	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
12/17/13	1150	WATER	MW # 2A	40 ml VOA - 2	HCl & Cool	-002	✓													✓	

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.

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1312988**

23-Dec-13

Client: Blagg Engineering
Project: MARTINEZ GC G #1

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: 1312988 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : N / A

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : March 10, 2014

Filename : Martinez GC G 1 mw log 03-10-14.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.)
1A	100.00	96.80	3.20	11.50	1255	7.48	900	11.8	4.00
2A	98.46	96.74	1.72	11.00	1055	7.56	800	10.5	4.50
3A	98.55	96.30	2.25	14.15	-	-	-	-	-
4A	98.79	96.34	2.45	14.05	1155	7.51	800	10.0	5.75
				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 ".

Top of casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**10:00 AM**	temp.	**42 F**
off-site	**1:00 PM**	temp.	**58 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**ESE - W**

Analytical Report
Lab Order **1403595**
Date Reported: **3/20/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: MARTINEZ GC G#1
Lab ID: 1403595-001
Matrix: AQUEOUS
Client Sample ID: MW #1A
Collection Date: 3/10/2014 12:55:00 PM
Received Date: 3/13/2014 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	13	1.0		µg/L	1	3/18/2014 12:14:39 AM	R17360
Toluene	ND	1.0		µg/L	1	3/18/2014 12:14:39 AM	R17360
Ethylbenzene	5.7	1.0		µg/L	1	3/18/2014 12:14:39 AM	R17360
Xylenes, Total	45	2.0		µg/L	1	3/18/2014 12:14:39 AM	R17360
Surr: 4-Bromofluorobenzene	104	82.9-139		%REC	1	3/18/2014 12:14:39 AM	R17360

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
Project: MARTINEZ GC G#1
Lab ID: 1403595-002
Matrix: AQUEOUS
Client Sample ID: MW #2A
Collection Date: 3/10/2014 10:55:00 AM
Received Date: 3/13/2014 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/18/2014 12:44:51 AM	R17360
Toluene	ND	1.0		µg/L	1	3/18/2014 12:44:51 AM	R17360
Ethylbenzene	ND	1.0		µg/L	1	3/18/2014 12:44:51 AM	R17360
Xylenes, Total	ND	2.0		µg/L	1	3/18/2014 12:44:51 AM	R17360
Surr: 4-Bromofluorobenzene	92.7	82.9-139		%REC	1	3/18/2014 12:44:51 AM	R17360

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 #4A
Project: MARTINEZ GC G#1
Collection Date: 3/10/2014 11:55:00 AM
Lab ID: 1403595-003
Matrix: AQUEOUS
Received Date: 3/13/2014 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	3/18/2014 1:15:00 AM	R17360
Toluene	ND	1.0		µg/L	1	3/18/2014 1:15:00 AM	R17360
Ethylbenzene	ND	1.0		µg/L	1	3/18/2014 1:15:00 AM	R17360
Xylenes, Total	ND	2.0		µg/L	1	3/18/2014 1:15:00 AM	R17360
Surr: 4-Bromofluorobenzene	92.5	82.9-139		%REC	1	3/18/2014 1:15:00 AM	R17360

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

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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: **MARTINEZ GC G # 1**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403595	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
3/10/14	~~1055~~ 1255	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
3/10/14	~~1155~~ 1055	WATER	MW # 2A	40 ml VOA - 2	HCl & Cool	-002	✓													✓	
3/10/14	~~1255~~ 1155	WATER	MW # 4A	40 ml VOA - 2	HCl & Cool	-003	✓													✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/14	828		Christy Walker	3/12/14	828
12/14	1750	Christy Walker		03/13/14	1005

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403595**

20-Mar-14

Client: Blagg Engineering
Project: MARTINEZ GC G#1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R17360**	RunNo: **17360**
Prep Date:	Analysis Date: **3/17/2014**	SeqNo: **500230** 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		99.2	82.9	139			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R17360**	RunNo: **17360**
Prep Date:	Analysis Date: **3/17/2014**	SeqNo: **500231** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	105	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	64	2.0	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	14		20.00		71.2	82.9	139			S

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: 1403595 | RcptNo: 1

Received by/date: AT 03/13/14

Logged By: Anne Thorne 3/13/2014 10:05:00 AM

Completed By: Anne Thorne 3/14/2014

Reviewed By: JB 3/14/14

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: Per NV use collection times on bottles /AT 03/14/14

18. Cooler Information

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

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : **June 27, 2014**
Filename : **Martinez GC G 1 mw log 06-27-14.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.)
1A	100.00	99.42	0.58	11.50	850	7.39	700	17.5	5.25
2A	98.46	-	-	11.00	-	-	-	-	-
3A	98.55	-	-	14.15	-	-	-	-	-
4A	98.79	-	-	14.05	-	-	-	-	-
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	2,800		
			DATE & TIME =			06/24/14	1730		

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 ".

Top of casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**8:00 AM**	temp.	**70 F**
off-site	**9:00 AM**	temp.	**73 F**
sky cond.		**Sunny**	
wind speed	**0 - 5**	direct.	**Calm**

Analytical Report
Lab Order 1407175
Date Reported: 7/9/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #1A
Project: MARTINEZ GC G #1
Collection Date: 6/27/2014 8:50:00 AM
Lab ID: 1407175-001
Matrix: AQUEOUS
Received Date: 7/3/2014 7:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	7/3/2014 2:48:44 PM	R19692
Toluene	ND	1.0		µg/L	1	7/3/2014 2:48:44 PM	R19692
Ethylbenzene	ND	1.0		µg/L	1	7/3/2014 2:48:44 PM	R19692
Xylenes, Total	ND	2.0		µg/L	1	7/3/2014 2:48:44 PM	R19692
Surr: 4-Bromofluorobenzene	113	82.9-139		%REC	1	7/3/2014 2:48:44 PM	R19692

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		

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:
MARTINEZ GC G # 1

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.5

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. 1407175	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	
Analysis Request																						
6/27/14	0850	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-001	✓													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/27/14	1500			07/03/14	0706
Date:	Time:	Relinquished by:	Received by:	Date	Time

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407175**

09-Jul-14

Client: Blagg Engineering
Project: MARTINEZ GC G #1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R19692**	RunNo: **19692**
Prep Date:	Analysis Date: **7/3/2014**	SeqNo: **571873** 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		109	82.9	139			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R19692**	RunNo: **19692**
Prep Date:	Analysis Date: **7/3/2014**	SeqNo: **571874** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	103	80	120			
Ethylbenzene	20	1.0	20.00	0	102	80	120			
Xylenes, Total	64	2.0	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		100	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

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: 1407175 | RcptNo: 1

Received by/date: AT 07/03/14

Logged By: Anne Thorne 7/3/2014 7:06:00 AM

Completed By: Anne Thorne 7/3/2014

Reviewed By: 07/03/14

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			

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : **August 23, 2014**

Filename : **Martinez GC G 1 mw log 08-23-14.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.)
1A	100.00		0.10	11.50	1030	7.30	800	19.4	5.50
2A	98.46		-	11.00	-	-	-	-	-
3A	98.55		-	14.15	-	-	-	-	-
4A	98.79		-	14.05	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	08/19/14	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. Collected sample from MW # 1 for BTEX only. Purged well 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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**9:45 AM**	temp.	**64 F**
off-site	**10:45 AM**	temp.	**68 F**
sky cond.	**Mostly sunny**		
wind speed	**0 - 10**	direct.	**E - ESE**

Analytical Report
Lab Order **1408D09**
Date Reported: **8/29/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: MARTINEZ GC G # 1
Lab ID: 1408D09-001
Matrix: AQUEOUS
Client Sample ID: MW # 1A
Collection Date: 8/23/2014 10:30:00 AM
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	8/27/2014 10:14:02 PM	R20843
Toluene	ND	1.0		µg/L	1	8/27/2014 10:14:02 PM	R20843
Ethylbenzene	ND	1.0		µg/L	1	8/27/2014 10:14:02 PM	R20843
Xylenes, Total	ND	2.0		µg/L	1	8/27/2014 10:14:02 PM	R20843
Surr: 4-Bromofluorobenzene	106	82.9-139		%REC	1	8/27/2014 10:14:02 PM	R20843

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		

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:
MARTINEZ GC G # 1

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.6

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. 1408L004	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	Air Bubbles (Y or N)
8/23/14	1030	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	001	✓													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/25/14	1540			8/25/14	1540
Date:	Time:	Relinquished by:	Received by:	Date	Time
8/25/14	1715			08/26/14	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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408D09**

29-Aug-14

Client: Blagg Engineering
Project: MARTINEZ GC G # 1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R20843**	RunNo: **20843**
Prep Date:	Analysis Date: **8/27/2014**	SeqNo: **606708** 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		109	82.9	139			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R20843**	RunNo: **20843**
Prep Date:	Analysis Date: **8/27/2014**	SeqNo: **606709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.3	80	120			
Toluene	20	1.0	20.00	0	99.6	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	63	2.0	60.00	0	104	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		121	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

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: 1408D09 | 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 8:47:21 AM

Reviewed By: mg 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			

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : **November 24, 2014**

Filename : **Martinez GC G 1 mw log 11-24-14.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.)
1A	100.00		1.75	11.50	1245	7.53	700	14.8	4.75
2A	98.46		-	11.00	-	-	-	-	-
3A	98.55		-	14.15	-	-	-	-	-
4A	98.79		-	14.05	-	-	-	-	-

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 MW # 1. Collected sample from MW # 1 for BTEX only. Purged well 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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**11:30 AM**	temp.	**39 F**
off-site	**1:00 PM**	temp.	**41 F**
sky cond.	**Mostly sunny**		
wind speed	**15 - 25**	direct.	**W -WNW**

Analytical Report
Lab Order **1411B05**
Date Reported: **12/2/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Martinez GC G #1
Lab ID: 1411B05-001

Client Sample ID: MW #1A
Collection Date: 11/24/2014 12:45:00 PM
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 5:59:58 AM	R22836
Toluene	ND	1.0		µg/L	1	11/27/2014 5:59:58 AM	R22836
Ethylbenzene	ND	1.0		µg/L	1	11/27/2014 5:59:58 AM	R22836
Xylenes, Total	ND	2.0		µg/L	1	11/27/2014 5:59:58 AM	R22836
Surr: 4-Bromofluorobenzene	102	66.6-167		%REC	1	11/27/2014 5:59:58 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		

Chain-of-Custody Record

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

Client: BLAGG ENGR. / BP AMERICA	☑ Standard ☐ Rush
	Project Name: MARTINEZ GC G # 1
Mailing Address: P.O. BOX 87	
BLOOMFIELD, NM 87413	Project #:
Phone #: (505) 632-1199	
email or Fax#:	Project Manager: NELSON VELEZ
QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)	Sampler: NELSON VELEZ
Accreditation: ☐ NELAP ☐ Other	On Ice: ☑ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 1.3

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	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	
11/24/14	1245	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	1411805-001	✓													✓		

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

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1411B05**

02-Dec-14

Client: Blagg Engineering
Project: Martinez GC G #1

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.
- 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

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: 1411B05 RcptNo: 1

Received by/date: 11/26/14

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

Completed By: **Ashley Gallegos** 11/26/2014 10:18:16 AM

Reviewed By: 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 ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. **Cooler Information**

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

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

CHAIN-OF-CUSTODY # : **N / A**

MARTINEZ GC G # 1
UNIT A, SEC. 24, T29N, R10W

LABORATORY (S) USED : **HALL ENVIRONMENTAL**

Date : **March 13, 2015**
Filename : **Martinez GC G 1 mw log 2015-03-13.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.)
1A	100.00		3.42	11.50	1045	7.11	800	11.2	3.00
2A	98.46		-	11.00	-	-	-	-	-
3A	98.55		-	14.15	-	-	-	-	-
4A	98.79		-	14.05	-	-	-	-	-

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 MW # 1A. Collected sample from MW # 1A for BTEX only. Purged well 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 casings : MW # 1A ~ 1.00 ft. , MW # 3A ~ 2.50 ft. , MW # 4A ~ 2.60 ft. above grade ; MW # 2A ~ 0.25 ft. below grade .

on-site	**9:55 AM**	temp.	**49 F**
off-site	**10:55 AM**	temp.	**57 F**
sky cond.	**Mostly cloudy**		
wind speed	**0 - 5**	direct.	**ESE**

Analytical Report
Lab Order **1503618**
Date Reported: **3/24/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Martinez GC G #1
Lab ID: 1503618-001
Matrix: AQUEOUS
Client Sample ID: MW # 1A
Collection Date: 3/13/2015 10:45:00 AM
Received Date: 3/14/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	10	1.0		µg/L	1	3/19/2015 3:51:09 PM	R24939
Toluene	ND	1.0		µg/L	1	3/19/2015 3:51:09 PM	R24939
Ethylbenzene	ND	1.0		µg/L	1	3/19/2015 3:51:09 PM	R24939
Xylenes, Total	4.0	1.5		µg/L	1	3/19/2015 3:51:09 PM	R24939
Surr: 1,2-Dichloroethane-d4	80.6	70-130		%REC	1	3/19/2015 3:51:09 PM	R24939
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	3/19/2015 3:51:09 PM	R24939
Surr: Dibromofluoromethane	85.1	70-130		%REC	1	3/19/2015 3:51:09 PM	R24939
Surr: Toluene-d8	86.2	70-130		%REC	1	3/19/2015 3:51:09 PM	R24939

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		

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:
MARTINEZ GC G # 1

Project #:

Project Manager:
NELSON VELEZ

Sampler: NELSON VELEZ

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. 1503618	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)
3/13/15	1045	WATER	MW # 1A	40 ml VOA - 2	HCl & Cool	-00	✓	-												✓		

Date: 3/13/15 Time: 1420 Relinquished by: [signature] Received by: [signature] Date: 3/13/15 Time: 1420

Date: 3/13/15 Time: 1720 Relinquished by: [signature] Received by: [signature] Date: 3/14/15 Time: 900

Remarks:
BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401
Paykey: ZEVH01REME

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1503618**

24-Mar-15

Client: Blagg Engineering
Project: Martinez GC G #1

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R24939**	RunNo: **24939**
Prep Date:	Analysis Date: **3/19/2015**	SeqNo: **734991** 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	1.5								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.5	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.1	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R24939**	RunNo: **24939**
Prep Date:	Analysis Date: **3/19/2015**	SeqNo: **734992** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.1	70	130			
Toluene	19	1.0	20.00	0	94.9	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.3	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		92.6	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.1	70	130			
Surr: Toluene-d8	9.1		10.00		91.0	70	130			

Qualifiers:

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

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: 1503618 | RcptNo: 1

Received by/date: AF 03/14/15

Logged By: Celina Sessa 3/14/2015 9:00:00 AM Celina Sessa

Completed By: Celina Sessa 3/16/2015 9:12:20 AM Celina Sessa

Reviewed By: JA 03/16/15

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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