OIL CONS. DIV DIST. 3

JAN 08 2016

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Ulabarri Gas Com 001A	Facility Type: Natural gas well

Surface Owner: Fee	Mineral Owner: Fee	API No. ~~3004511632~~ 30-045-22198

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
O	35	30N	9W	915	South	1,630	East	

Latitude 36.76309 **Longitude** -107.74640

NATURE OF RELEASE

Type of Release: Oil/condensate	Volume of Release: unknown	Volume Recovered: none
Source of Release: Faulty piping connection between the separator and tank.	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: October 17, 2011
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Soil impacts were found during the installation of pipe following a BGT closure. Depth to groundwater around 7.5 feet suggested high potential of groundwater impacts. An extensive excavation of impacted soils removed approximately 3,100 cubic yards that were removed and transported off site for treatment. Groundwater monitoring wells were installed to determine impacts.

Describe Area Affected and Cleanup Action Taken.* Approximately 3,100 cubic yards of soil was excavated and removed from the site for offsite treatment. The area of excavation extended approximately 6,650 square feet with depths reaching 13 feet. The extents of impacted soils were determined and removed from the site. Laboratory results are attached. Groundwater impacts were suspected. Monitoring wells were installed, purged and sampled. Results of the laboratory analysis of the groundwater samples determined insignificant impacts to groundwater below groundwater quality standards. Laboratory results are attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Steve Moskal	Approved by Environmental Specialist:
Title: Field Environmental Coordinator	Approval Date: 02/16/2016 Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: — Attached ☐
Date: January 7, 2015 Phone: 505-326-9497	

* Attach Additional Sheets If Necessary

NUF1604749779

BP AMERICA PRODUCTION CO.

REMEDIATION REPORT

ULIBARRI GC 001A
API #: 300-45-22198
(O) SECTION 35, T30N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

JANUARY 2016

PREPARED BY:
BLAGG ENGINEERING, INC.

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

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BP AMERICA PRODUCTION COMPANY

REMEDIATION OF SUBSURFACE PIPING RELEASE
ULIBARRI GC # 1A
API #: 300-45-22198
Legal Description: (Unit Letter 0, Sec. 35, T30N, R9W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. October 17, 2011 (Monday): During pipe refitting at the site after closing a 95 barrel below-grade tank (bgt), discolored soil was observed adjacent to the 300 barrel (bbl) production tank (p.t.). There was no evidence of a loss of integrity from the p.t. The release mostly likely originated from a loose piping threaded connection leading to the separator unit from the p.t. (see Field Report page 1 of 2). Three (3) test holes were advanced during the initial assessment using a backhoe to approximately seven (7) feet (ft.) below grade (b.g.). Field screening and lab analyses from two (2) of the three (3) test holes (lab reports attached) confirmed the impact to soils. Depth to groundwater was estimated at seven and a half (7½) to eight (8) ft. b.g.

2. June 25, 2012 (Monday): Secondary investigation was conducted around 300 bbl p.t. using a backhoe (see Field Report page 2 of 2). A total of eight (8) test holes were advanced to a maximum depth of seven and a half (7½) ft. b.g. Samples from the total depth of each test holes were field screened, and submitted to an accredited laboratory to be analyzed for Total Petroleum Hydrocarbons (TPH) per US EPA Method 8015B, chlorides per US EPA Method 300.0, benzene, toluene, ethylbenzene, and total xylenes (BTEX) per US EPA Method 8021B.

3. January 25, 2013 (Friday): Subsequent investigation to further delineate lateral and vertical impacts was conducted using an extendahoe. A total of seven (7) test holes were advanced to a maximum depth of thirteen (13) ft. b.g. Samples collected from each test hole were field screened only.

4. February 6th & 7th, 2013 (Wednesday & Thursday): Subsequent investigation to continue to delineate lateral and vertical of impacts was conducted using a geoprobe. A total of thirteen (13) borings were advanced to a maximum depth of thirteen (13) ft. b.g. Samples collected from each boring were field screened only (Field and Lab Data Summary Sheets attached, see also corresponding Figure 2 for sample locations).

5. February 2013: BP commenced excavation of impacted soils.

6. February 27, 2013 (Wednesday): A three (3) point composite sample (3pcs) of the northern extent of the excavation was collected and submitted to a laboratory for TPH, BTEX, and chloride analyzes. The lab results recorded all constituents to be not detected (ND) at the reporting limits. The three (3) individual grab samples were field screened prior to combining for the 3pcs.

7. March 5th & 7th, 2013 (Tuesday & Thursday): Eight (8) grab samples from the completed excavation were collected, field screened, and submitted to a laboratory for TPH, BTEX, and chloride analyzes. The lab results recorded all constituents to be ND at the reporting limits. Approximately 3,100 cubic yards of soil was excavated and transported to BP's Crouch Mesa Facility (Field and Lab Data Summary Sheets attached, see also corresponding Figure 3 for sample locations).

8. March 22nd & 25th, 2013 (Friday & Monday): Blagg Engineering, Inc. (BEI) was contacted to provide technical support for the installation of a groundwater monitor wells for both sites on the well pad (Ulibarri GC #1A & #2). Boring logs and well completion data are attached (see also corresponding Figure 4 for well locations).

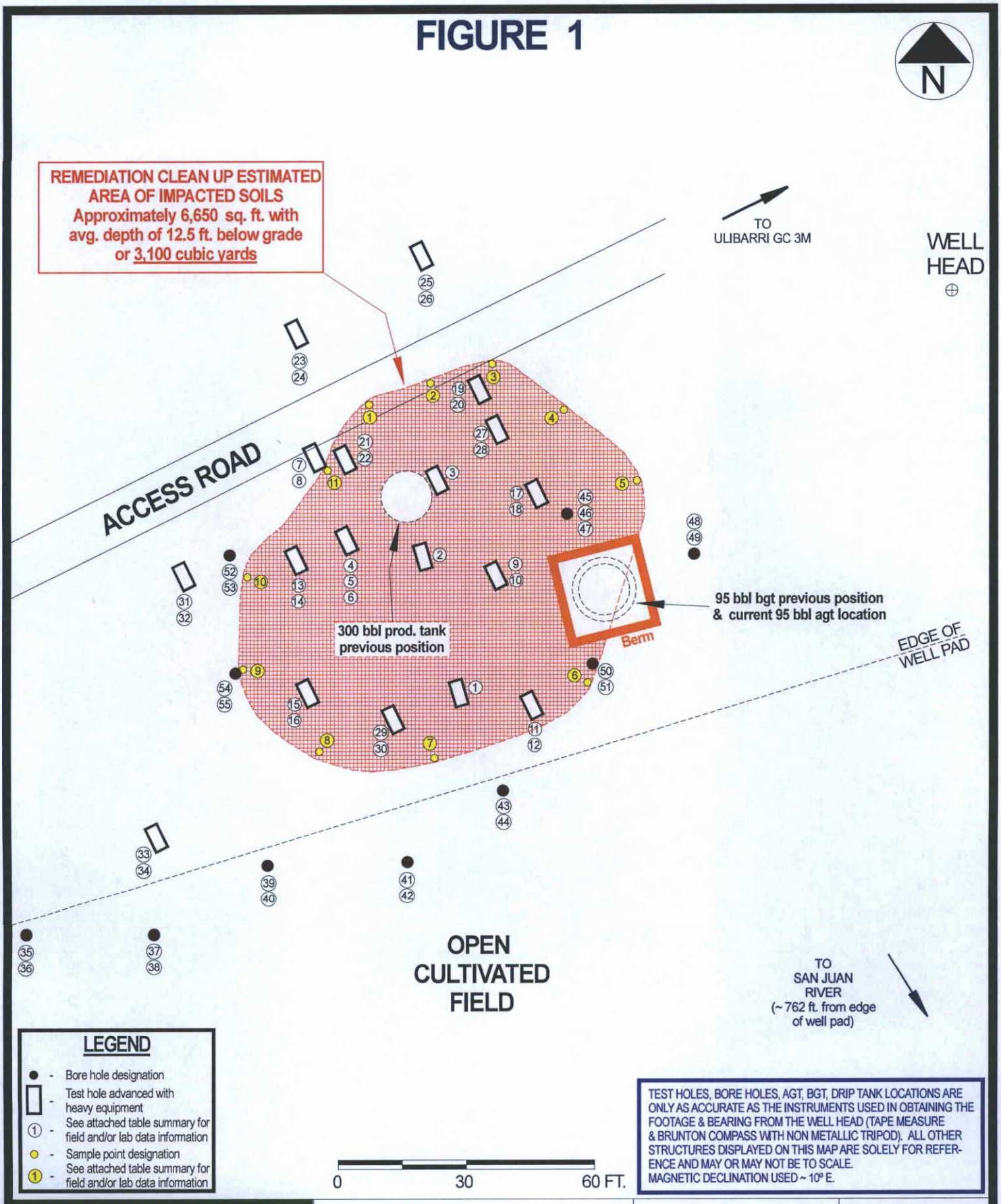
9. March 27, 2013 (Wednesday): BEI conducted survey of the monitor well casing tops.

10. April 11, 2013 (Thursday): BEI conducted development/purging of the three (3) monitor wells addressing the remedial effort at the site. The goal was to eliminate sediment accumulation during the installation process and to observe recovery patterns during high and low purging levels. All purged groundwater was disposed into the on-site low profile above-grade tank.

11. April 29, 2013 (Monday): BEI conducted environmental sampling of the three (3) on-site monitor wells (Field Sampling Data Sheet attached).

12. May 16, 2013 (Thursday): BEI & BP received final lab reports for samples collected on 04/29/2013. The lab results recorded all BTEX constituents to be ND at the reporting limits or well below the New Mexico Water Quality Control Commission's groundwater closure standards (Field and Lab Data Summary Sheet attached).

FIGURE 1



BP AMERICA PRODUCTION CO.

ULIBARRI GC # 1A

SW/4 SE/4 SEC. 35, T30N, R9W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: REMEDIATION CLEANUP

DRAWN BY: NJV

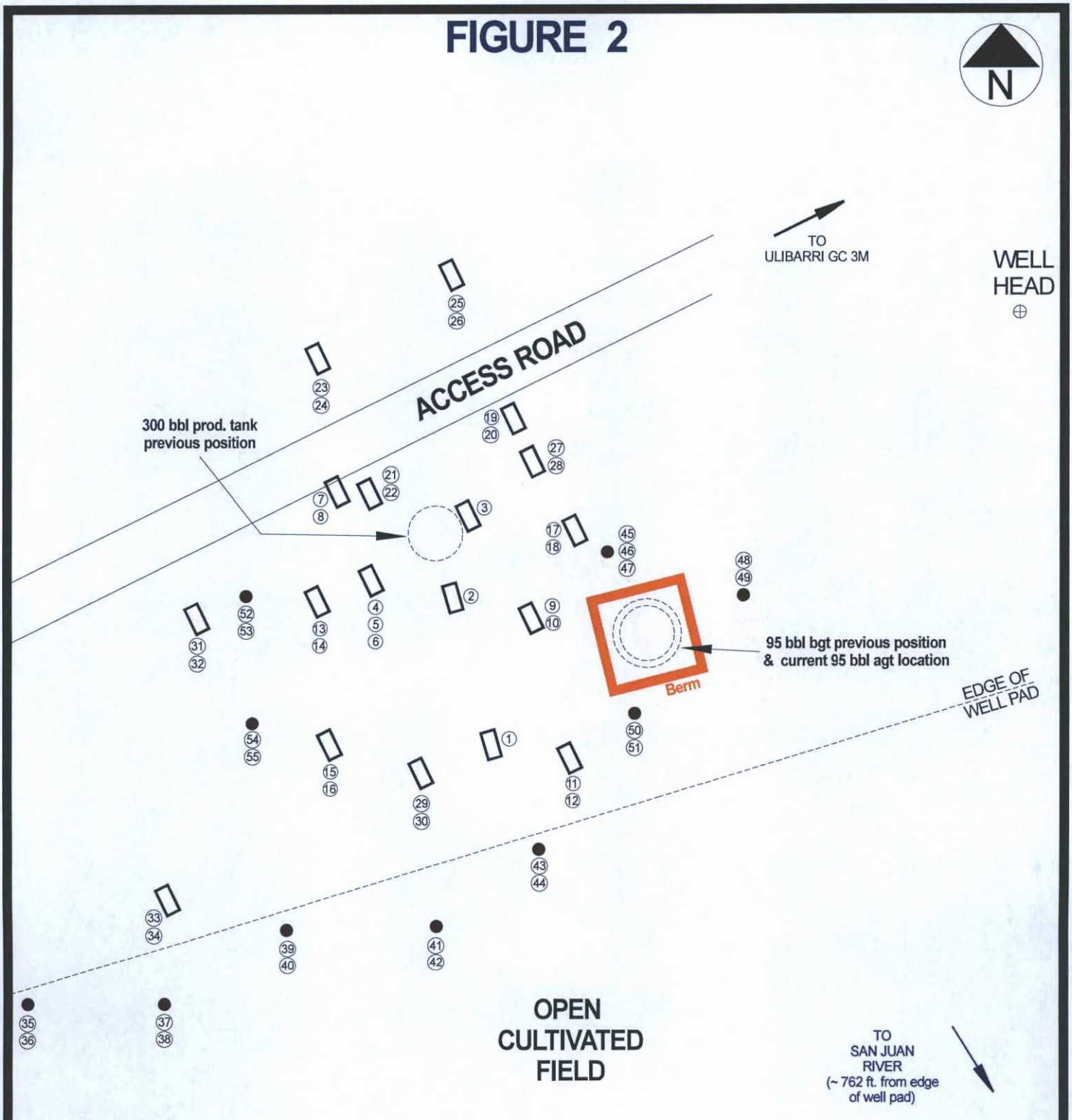
FILENAME: ULIBARRI GC 1A-FIG1.SKF

REVISED: 04-24-13 NJV

REMEDIATION MAP

03/13

FIGURE 2



LEGEND

- ● - Bore hole designation
- ▯ - Test hole advanced with heavy equipment
- ① - See attached table summary for field and/or lab data information

0 30 60 FT.

TEST HOLES, BORE HOLES, AGT, BGT, DRIP TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE.
MAGNETIC DECLINATION USED ~ 10° E.

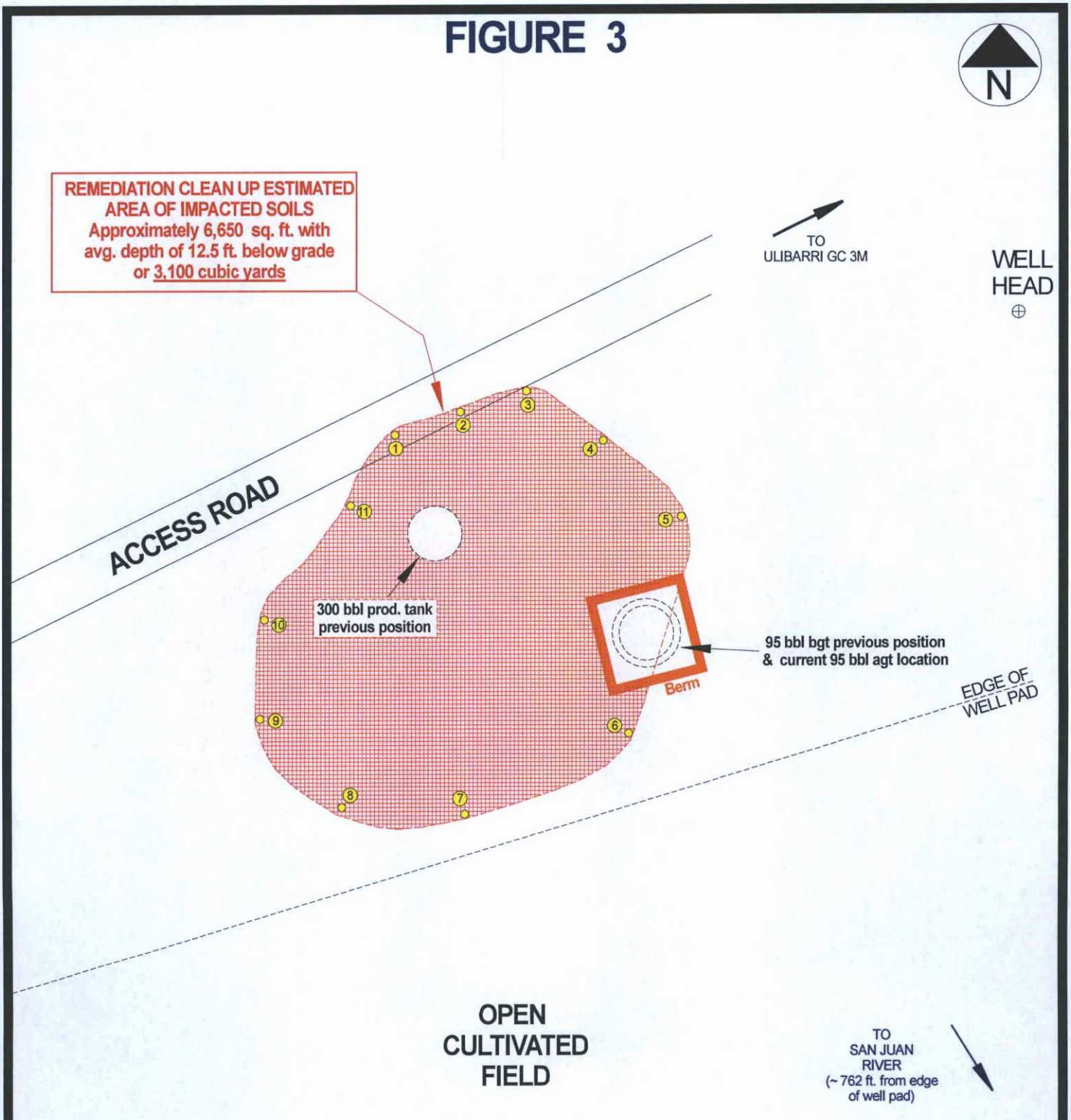
BP AMERICA PRODUCTION CO.
ULIBARRI GC # 1A
SW/4 SE/4 SEC. 35, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: RELEASE ASSESSMENT
DRAWN BY: NJV
FILENAME: ULIBARRI GC 1A-FIG2.SKF
REVISED: 04-24-13 NJV

ASSESSMENT MAP
03/13

FIGURE 3



LEGEND

- Sample point designation
- (1) See attached table summary for field and/or lab data information

0 30 60 FT.

TEST HOLES, BORE HOLES, AGT, BGT, DRIP TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE.
MAGNETIC DECLINATION USED ~ 10° E.

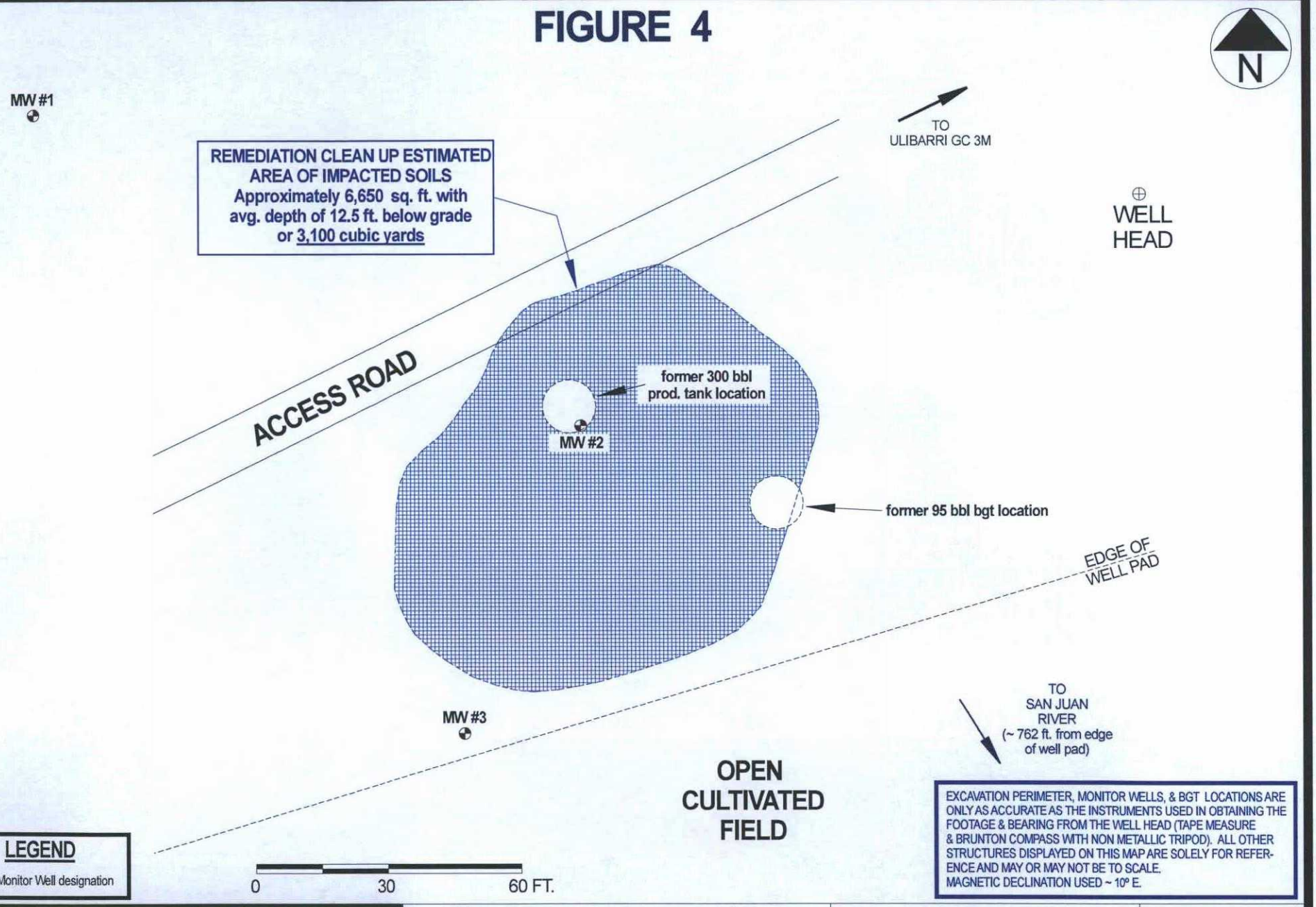
BP AMERICA PRODUCTION CO.
ULIBARRI GC # 1A
SW/4 SE/4 SEC. 35, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: REMEDIATION CLEAN UP
DRAWN BY: NJV
FILENAME: ULIBARRI GC 1A-FIG3.SKF
REVISED: 04-24-13 NJV

EXCAVATION MAP
03/13

FIGURE 4



BP AMERICA PRODUCTION CO.
ULIBARRI GC # 1A
SW/4 SE/4 SEC. 35, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MONITOR WELL INSTALLATIONS
DRAWN BY: NJV
FILENAME: ULIBARRI GC 1A-FIG4.SKF
REVISED: 12-31-15 NJV

MONITOR WELL PLACEMENT SCHEMATIC
04/13

BP AMERICA PRODUCTION COMPANY

ULIBARRI GC # 1A

Unit Letter O, Section 35, T30N, R9W - API Number: 30-045-22198

Historical Release Assessment Data (Figure 2)

MAP DESIGNATION	SAMPLE ID	DEPTH	DATE	TIME	OVM (ppm)	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)	Chloride (ppm)
1	TH #1	7'	10/17/11	0950	0.0	ND	NA	NA	NA
2	TH #2	7'	10/17/11	1000	516	1,530	NA	NA	NA
3	TH #3	4'	10/17/11	1005	745	6,700	NA	NA	NA
4	TH #4	4.5'	06/25/12	1007	2.6	NA	NA	NA	NA
5	TH #4	7'	06/25/12	1010	531	NA	NA	NA	NA
6	TH #4	8'	06/25/12	1011	1,902	216	ND	6.92	ND
7	TH #5	5'	06/25/12	1025	1.6	NA	NA	NA	NA
8	TH #5	7.5'	06/25/12	1029	13	ND	ND	ND	ND
9	TH #6	4.5'	06/25/12	1059	4.2	NA	NA	NA	NA
10	TH #6	7.5'	06/25/12	1102	953	3,810	18	301	ND
11	TH #7	5'	06/25/12	1111	0.0	NA	NA	NA	NA
12	TH #7	7.5'	06/25/12	1114	0.0	ND	ND	ND	ND
13	TH #8	5'	06/25/12	1128	0.0	NA	NA	NA	NA
14	TH #8	7.5'	06/25/12	1132	0.0	ND	ND	ND	ND
15	TH #9	5.5'	06/25/12	1140	0.0	NA	NA	NA	NA
16	TH #9	7.5'	06/25/12	1143	0.0	ND	ND	ND	ND
17	TH #10	4.5'	06/25/12	1335	0.0	NA	NA	NA	NA
18	TH #10	7.5'	06/25/12	1340	44	22	ND	3.09	ND
19	TH #11	5'	06/25/12	1350	0.0	NA	NA	NA	NA
20	TH #11	7.5'	06/25/12	1355	0.0	ND	ND	ND	ND
21	TH 147', S74.5W	8'	01/25/13	1050	6.4	NA	NA	NA	NA
22	TH 147', S74.5W	10'	01/25/13	1058	249	NA	NA	NA	NA
23	TH 154', S86W	8.5'	01/25/13	1126	1.5	NA	NA	NA	NA
24	TH 154', S86W	10'	01/25/13	1130	1.5	NA	NA	NA	NA
25	TH 124.5', N86W	8'	01/25/13	1205	0.0	NA	NA	NA	NA
26	TH 124.5', N86W	10'	01/25/13	1210	0.9	NA	NA	NA	NA
27	TH 111.3', S73W	8'	01/25/13	1304	6.4	NA	NA	NA	NA
28	TH 111.3', S73W	10'	01/25/13	1309	376	NA	NA	NA	NA
29	TH 164.7', S52.5W	8'	01/25/13	1318	16.0	NA	NA	NA	NA
30	TH 164.7', S52.5W	10'	01/25/13	1324	402	NA	NA	NA	NA
31	TH 192', S69.5W	8'	01/25/13	1333	0.0	NA	NA	NA	NA
32	TH 192', S69.5W	10'	01/25/13	1338	0.0	NA	NA	NA	NA
33	TH 226', S55.5W	8'	01/25/13	1348	0.0	NA	NA	NA	NA
34	TH 226', S55.5W	10'	01/25/13	1357	0.8	NA	NA	NA	NA

MAP DESIGNATION	SAMPLE ID	DEPTH	DATE	TIME	OVM (ppm)	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)	Chloride (ppm)
35	BH-9	10'	02/06/13	1303	**0.4**	NA	NA	NA	NA
36	BH-9	12'-13'	02/06/13	1306	**0.4**	NA	NA	NA	NA
37	BH-10	10'	02/06/13	1328	**1.2**	NA	NA	NA	NA
38	BH-10	12'-13'	02/06/13	1330	**0.0**	NA	NA	NA	NA
39	BH-11	10'	02/06/13	1357	**0.0**	NA	NA	NA	NA
40	BH-11	13'	02/06/13	1359	**0.0**	NA	NA	NA	NA
41	BH-12	10'	02/06/13	1424	**5.7**	NA	NA	NA	NA
42	BH-12	12'-13'	02/06/13	1427	**4.8**	NA	NA	NA	NA
43	BH-13	10'	02/06/13	1525	**0.0**	NA	NA	NA	NA
44	BH-13	12'-13'	02/06/13	1528	**2.0**	NA	NA	NA	NA
45	BH-14	7'	02/07/13	1115	**0.9**	NA	NA	NA	NA
46	BH-14	10'	02/07/13	1149	**392**	NA	NA	NA	NA
47	BH-14	12'-13'	02/07/13	1153	**356**	NA	NA	NA	NA
48	BH-15	10'	02/07/13	1240	**3.8**	NA	NA	NA	NA
49	BH-15	12'-13'	02/07/13	1244	**3.5**	NA	NA	NA	NA
50	BH-16	10'	02/07/13	1345	**16.0**	NA	NA	NA	NA
51	BH-16	12'-13'	02/07/13	1351	**7.0**	NA	NA	NA	NA
52	BH-17	10'	02/07/13	1445	**0.0**	NA	NA	NA	NA
53	BH-17	12'-13'	02/07/13	1447	**0.0**	NA	NA	NA	NA
54	BH-18	10'	02/07/13	1512	**0.0**	NA	NA	NA	NA
55	BH-18	12'-13'	02/07/13	1514	**0.0**	NA	NA	NA	NA
NMOCD RELEASE CLOSURE STANDARDS (soils) -					**100**	**100**	**10**	**50**	**NA**

Notes:

DEPTH - Footage beneath current ground surface grade.
OVM - Organic vapor meter or photo-ionization detector (PID).
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.
ppm - Parts per million or milligram per kilogram (mg/Kg).
ND - Not detected at Reporting Limit.
NA - Not applicable or available
NMOCD - New Mexico Oil Conservation Division.

BP AMERICA PRODUCTION COMPANY

ULIBARRI GC # 1A

Unit Letter O, Section 35, T30N, R9W - API Number: 30-045-22198

Historical Release Cleanup Data (Figure 3)

MAP DESIGNATION	SAMPLE ID	DEPTH	DATE	TIME	OVM (ppm)	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)	Chloride (ppm)
1	139', S79W	11'-13'	02/27/13	0945	NA	NA	NA	NA	NA
2	124', S80W	11'-13'	02/27/13	0947	NA	NA	NA	NA	NA
3	109', S81W	11'-13'	02/27/13	0949	NA	NA	NA	NA	NA
4	95', S73W	11'-12'	03/05/13	0915	**1.2**	**ND**	**ND**	**ND**	**ND**
5	86', S59W	11'-12'	03/05/13	0925	**1.6**	**ND**	**ND**	**ND**	**ND**
6	125', S43W	11'-12'	03/05/13	0935	**10.5**	**ND**	**ND**	**ND**	**ND**
7	163', S48W	10'-12'	03/07/13	0918	**0.0**	**ND**	**ND**	**ND**	**ND**
8	183', S54W	10'-12'	03/07/13	0926	**1.3**	**ND**	**ND**	**ND**	**ND**
9	188', S62W	10'-12'	03/07/13	0932	**1.7**	**ND**	**ND**	**ND**	**ND**
10	178', S68W	10'-12'	03/07/13	0939	**0.9**	**ND**	**ND**	**ND**	**ND**
11	152', S74W	10'-12'	03/07/13	0953	**1.3**	**ND**	**ND**	**ND**	**ND**
-	Northern Extent 3-pt. comp	11'	02/27/13	0949	NA	**ND**	**ND**	**ND**	**ND**
	NMOCD RELEASE CLOSURE STANDARDS (soils) -				**100**	**100**	**10**	**50**	**NA**

Notes:

DEPTH - Footage beneath current ground surface grade.
OVM - Organic vapor meter or photo-ionization detector (PID).
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.
ppm - Parts per million or milligram per kilogram (mg/Kg).
ND - Not detected at Reporting Limit.
NA - Not applicable or available
NMOCD - New Mexico Oil Conservation Division.
Northern Extent 3-pt. comp - 3 point composite sample from Map Designations 1, 2, & 3 grab samples.

BLAGG ENGINEERING, INC.

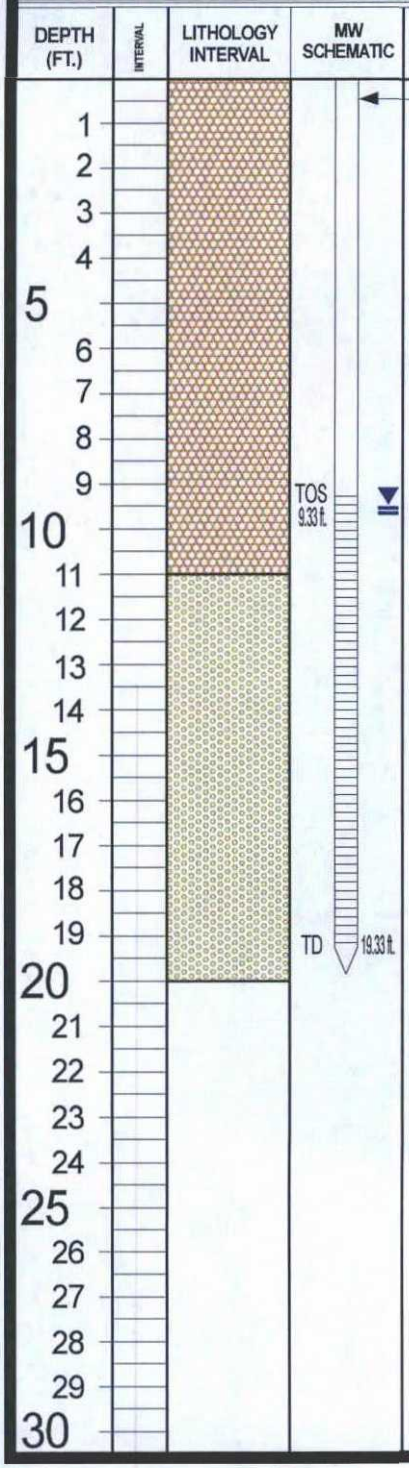
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 2

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	ULIBARRI GC # 1A API # 3004522198 UNIT O, SEC. 35, T30N, R9W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - HOLLOW STEM AUGER
BORING LOCATION:	121 FEET, N57E FROM ULIBARRI GC #2 WELL HEAD.

BORING #.....	BH - 4
MW #.....	2
PAGE #.....	2
DATE STARTED	03/25/13
DATE FINISHED	03/25/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.40 FEET ABOVE GRADE.

MODERATE YELLOWISH BROWN SILTY SAND (BACKFILL MATERIAL), NON COHESIVE, SLIGHTLY MOIST TO WET, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 11.0 FEET BELOW GRADE).

GROUNDWATER ~ 9.46 FEET BELOW GRADE ; MEASURED 04/29/13.

PALE YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, WET TO SATURATED, FIRM TO LOOSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (11.0 - 20.0 FEET BELOW GRADE).

TOTAL LENTGH OF PIPING - 21.73 FEET.

NOTES:

- SILTY SAND (BACKFILL).
- SAND & GRAVEL.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.40 feet above grade to 9.33 feet below grade, 0.020 slotted screen between 9.33 to 19.33 feet below grade, sand packed annular to 7.0 feet below grade, bentonite grout between 5.0 to 7.0 feet below grade, cuttings fill the remaining annular to grade. Secured casing top with steel well protector and padlock.

DRAWING: ULIBARRI GC 1A & 2 MW-2 2013-03-25.SKF | DATE: 12/28/15 | DWN BY: NJV

BLAGG ENGINEERING, INC.

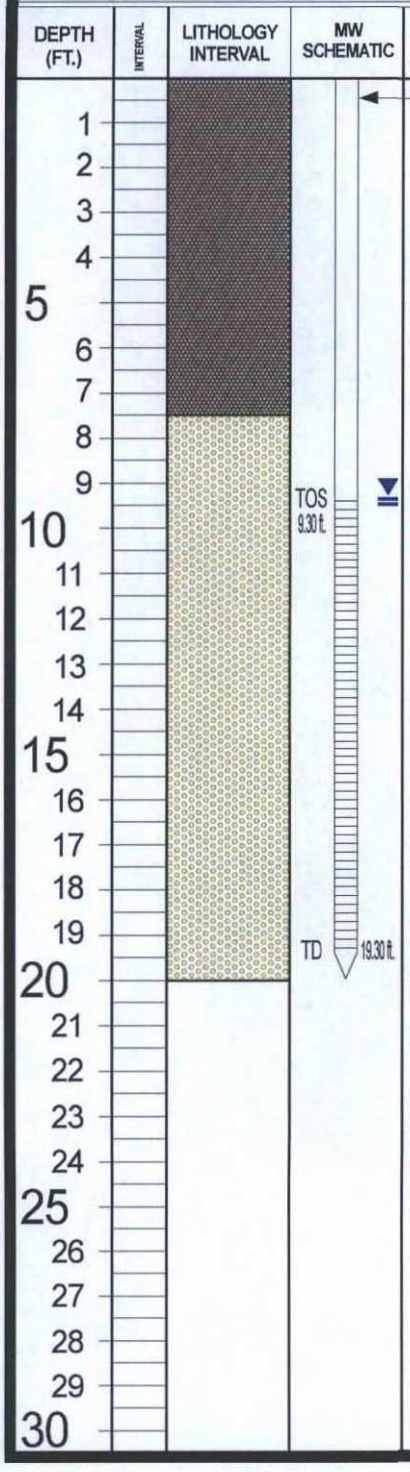
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	ULIBARRI GC # 1A API # 3004522198 UNIT O, SEC. 35, T30N, R9W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - HOLLOW STEM AUGER
BORING LOCATION:	75 FEET, S87E FROM ULIBARRI GC #2 WELL HEAD.

BORING #.....	BH - 2
MW #.....	3
PAGE #.....	3
DATE STARTED	03/22/13
DATE FINISHED	03/22/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROX. 2.40 FEET ABOVE GRADE.

DARK YELLOWISH BROWN SILTY SAND TO SILTY CLAY, SLIGHTLY PLASTIC, SLIGHTLY MOIST TO MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 7.5 FEET BELOW GRADE).

GROUNDWATER ~ 9.28 FEET BELOW GRADE ; MEASURED 04/29/13.

PALE YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, SATURATED, FIRM TO LOOSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (7.5 - 20.0 FEET BELOW GRADE).

TOTAL LENTGH OF PIPING - 21.70 FEET.

NOTES:

- SILTY SAND TO SILTY CLAY.
- SAND & GRAVEL.

TOS - Top of screen of monitor well.

TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.40 feet above grade to 9.30 feet below grade, 0.020 slotted screen between 9.30 to 19.30 feet below grade, sand packed annular to 7.0 feet below grade, bentonite grout between 5.0 to 7.0 feet below grade, cuttings fill the remaining annular to grade. Secured casing top with steel well protector and padlock.

DRAWING: ULIBARRI GC 1A & 2 MW-3 2013-03-22.SKF | DATE: 12/28/15 | DWN BY: NJV

BP AMERICA PRODUCTION COMPANY

Ulibarri GC # 1A

Unit Letter O, Section 35, T30N, R9W - API Number: 30-045-22198

Field & Laboratory Data from Groundwater Monitor Wells

	FIELD PARAMETERS							
SAMPLE ID	SAMPLE DATE	SAMPLE TIME	DEPTH TO WATER (feet)	TOTAL MW LENGTH (feet)	pH	Conductivity (µmhos/cm)	Temperature (°Celcius)	Volume Purged (gallons)
MW # 1	04/29/13	1100	9.93	20.57	6.81	900	14.1	5.25
MW # 2	04/29/13	1510	11.86	21.73	7.22	800	13.7	4.75
MW # 3	04/29/13	1320	11.68	21.70	6.80	1,000	14.0	5.00
				NMWQCC STANDARDS -	6 - 9			

	LABORATORY PARAMETERS									
SAMPLE ID	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-Nitrite as N (mg/L)	Iron (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl - benzene (µg/L)	Total Xylenes (µg/L)
MW # 1	0.56	4.6	78	ND	1.8	570	ND	ND	ND	ND
MW # 2	0.51	4.0	59	ND	0.30	550	4.9	1.3	3.4	29
MW # 3	0.6	4.6	130	ND	2	690	ND	ND	ND	ND
NMWQCC STANDARDS -	1.6	250	600	10	1.0	1,000	10	750	750	620

Notes: Depth to water measured from casing top of monitor well.
Groundwater standards are applied to values assigned in blue highlighted boxes or confirmed background levels, which ever is higher.

MW - Monitor well
µmhos/cm - Micromhos per centimeter
TDS - Total dissolved solids
mg/L - Milligram per Liter
µg/L - Microgram per liter
ND - Not detected at Reporting Limit
NMWQCC - New Mexico Water Quality Control Commission

BLAGG ENGINEERING, INC.

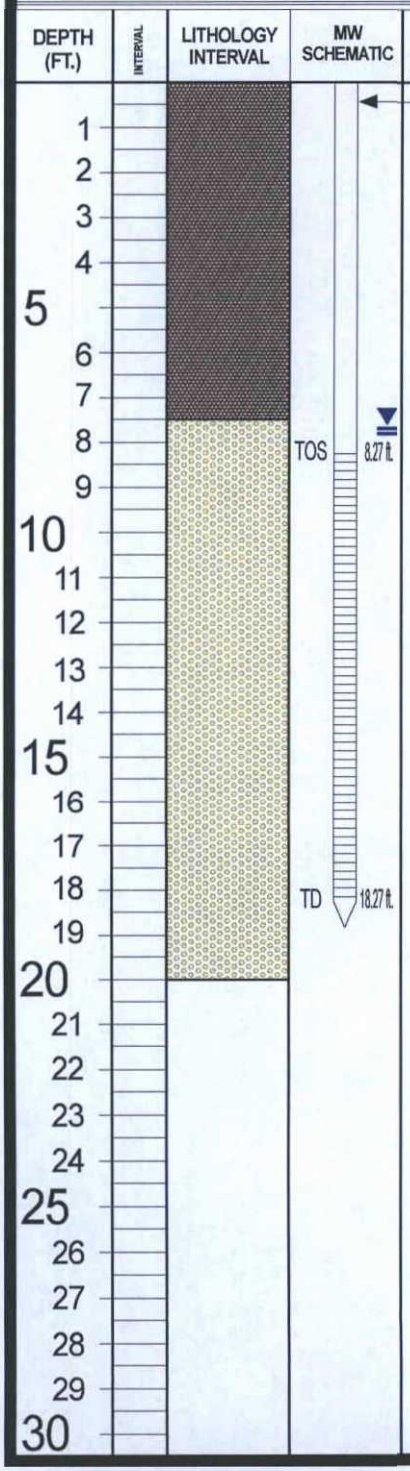
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	ULIBARRI GC # 1A API # 3004522198 UNIT O, SEC. 35, T30N, R9W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - HOLLOW STEM AUGER
BORING LOCATION:	137.5 FEET, N9W FROM ULIBARRI GC #2 WELL HEAD.

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	03/22/13
DATE FINISHED	03/22/13
OPERATOR.....	KP
LOGGED BY.....	NJV



FIELD CLASSIFICATION AND REMARKS

TOP OF CASING APPROX. 2.30 FEET ABOVE GRADE.

DARK YELLOWISH BROWN SILTY SAND TO SILTY CLAY, SLIGHTLY PLASTIC, SLIGHTLY MOIST TO MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 7.0 FEET BELOW GRADE).

GROUNDWATER ~ 7.63 FEET BELOW GRADE ; MEASURED 04/29/13.

PALE YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, SATURATED, FIRM TO LOOSE, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (7.0 - 20.0 FEET BELOW GRADE).

TOTAL LENTGH OF PIPING - 20.57 FEET.

NOTES:

- SILTY SAND TO SILTY CLAY.
- SAND & GRAVEL.

TOS - Top of screen of monitor well.

TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.30 feet above grade to 8.27 feet below grade, 0.020 slotted screen between 8.27 to 18.27 feet below grade, sand packed annular to 6.0 feet below grade, bentonite grout between 4.0 to 6.0 feet below grade, cuttings fill the remaining annular to grade. Secured casing top with steel well protector and padlock.

DRAWING: ULIBARRI GC 1A & 2 MW-1 2013-03-22.SKF | DATE: 12/27/15 | DWN BY: NJV

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

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

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

Ulibarri GC # 1A & # 2
UNIT O, SEC. 35, T30N, R9W

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

Date : **April 29, 2013**

DEVELOPER / SAMPLER : N J V

Filename : **Ulibarri GC 1A&2 mw log 04-29-13.xls**

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	102.32	92.39	9.93	20.57	1100	6.81	900	14.1	5.25
2	102.84	90.98	11.86	21.73	1510	7.22	800	13.7	4.75
3	102.52	90.84	11.68	21.70	1320	6.80	1,000	14.0	5.00
~~4~~	~~102.48~~	~~91.25~~	~~11.23~~	~~19.88~~	~~1410~~	~~6.85~~	~~1,200~~	~~14.2~~	~~3.75~~
~~5~~	~~101.90~~	~~90.59~~	~~11.31~~	~~19.37~~	~~1285~~	~~6.13~~	~~1,000~~	~~13.7~~	~~4.00~~
~~6~~	~~101.97~~	~~90.33~~	~~11.64~~	~~21.37~~	~~1155~~	~~6.43~~	~~1,100~~	~~14.1~~	~~4.75~~

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	04/29/13	0700

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes: 2.00 " well diameter = 0.49 gal. / ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all monitor wells (MWs). All MWs except MW #2 & #3 were brownish tint in appearance. MW #2 & #3 contained light gray tint appearance without an indication of hydrocarbon sheen within purged water. Collected samples for BTEX per US EPA Method 8021B and general chemistry analyses from all MWs. Purged wells using 2 inch submersible electrical pump, new / clear vinyl tubing, and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.30 ft., MW # 2 ~ 2.40 ft., MW # 3 ~ 2.40 ft., MW # 4 ~ 2.30 ft., MW # 5 ~ 2.25 ft., MW # 6 ~ 2.20 ft. above grade.

on-site	10:20 AM	temp	64 F
off-site	3:20 PM	temp	82 F
sky cond.		Sunny	
wind speed	0 - 15	direct.	SE - WNW

CLIENT: BP

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

API #: 3004522198
TANK ID (if applicble): A

FIELD REPORT:

(circle one): BGT CONFIRMATION | RELEASE INVESTIGATION | OTHER:

PAGE #: 1 of 2

SITE INFORMATION:

SITE NAME: ULIBARRI GC # 1A

QUAD/UNIT: O SEC: 35 TWP: 30N RNG: 9W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 910'S / 1,620'E SW/SE LEASE TYPE: FEDERAL / STATE / FEE / INDIAN

LEASE #: - PROD. FORMATION: MV CONTRACTOR: ELKHORN BP - J. DAVIS

DATE STARTED: 10/17/11
DATE FINISHED:
ENVIRONMENTAL SPECIALIST(S): JCB

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.76329 X 107.74612 GL ELEV.: 5,626'

1)	300 BBL PROD. TANK	GPS COORD.:	36.76314 X 107.74657	DISTANCE/BEARING FROM W.H.:	141', S75.5W
2)	TH #1 @ 7'	GPS COORD.:	36.76306 X 107.74648	DISTANCE/BEARING FROM W.H.:	153', S51W
3)	TH #2 @ 7'	GPS COORD.:	36.76311 X 107.74649	DISTANCE/BEARING FROM W.H.:	145', S60W
4)	TH #3 @ 4'	GPS COORD.:	36.76317 X 107.74653	DISTANCE/BEARING FROM W.H.:	135', S75W

SAMPLING DATA:

CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL

	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:	OVM READING (ppm)
1)	TH #1 @ 7'	10/17/11	0950	8015	0.0
2)	TH #2 @ 7'	10/17/11	1000	8015	516
3)	TH #3 @ 4'	10/17/11	1005	8015	6,700
4)					

SOIL DESCRIPTION:

SOIL TYPE: SAND | SILTY SAND | SILT | SILTY CLAY / CLAY / GRAVEL / OTHER

SOIL COLOR: MOSTLY DARK YELLOWISH ORANGE

COHESION (ALL OTHERS): NON COHESIVE | SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

CONSISTENCY (NON COHESIVE SOILS): LOOSE | FIRM / DENSE / VERY DENSE

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE: DRY | SLIGHTLY MOIST | MOIST | WET / SATURATED / SUPER SATURATED

HC ODOR DETECTED: YES | NO EXPLANATION - PHYSICALLY EVIDENT IN DISCOLORED SOILS ONLY.

SAMPLE TYPE: GRAB | COMPOSITE - # OF PTS. NA

DISCOLORATION/STAINING OBSERVED: YES | NO EXPLANATION - DARK GRAY AT TH #2 @ 4 FT. BELOW GRADE (B.G.) & TH #3 STARTING AT 2.5 FT. B.G.

ANY AREAS DISPLAYING WETNESS: YES | NO EXPLANATION -

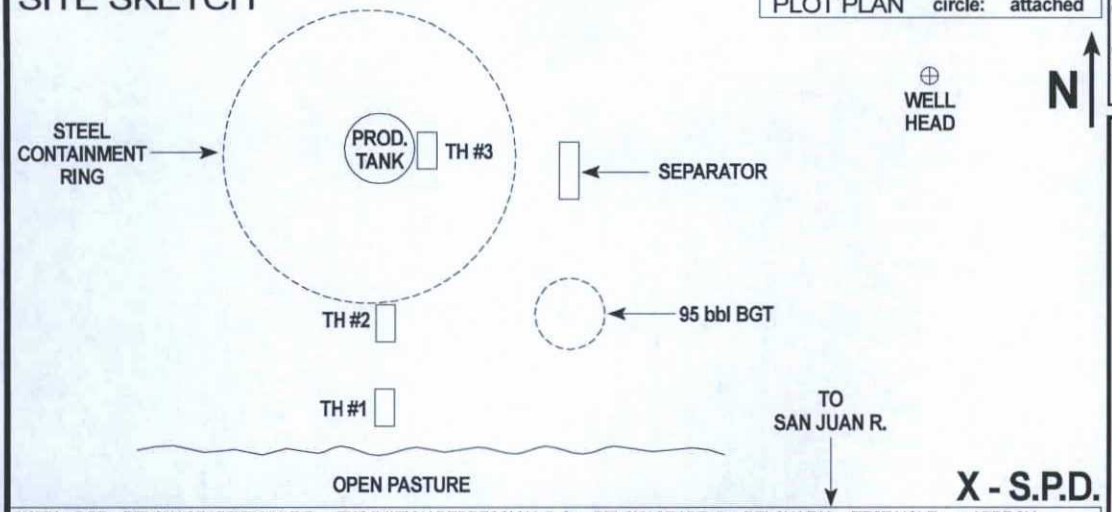
ADDITIONAL COMMENTS: HYDROCARBON IMPACTS APPEARS TO HAVE ORIGINATED AT FLOWLINE PIPING CONNECTION NEAR TH #3. TH #2 APPEARS TO BE IMPACTED AS WELL BASED ON SAME PHYSICAL CHARACTERISTICS AS TH #3.

SOIL IMPACT DIMENSION ESTIMATION: ____ ft. X ____ ft. X ____ ft. EXCAVATION ESTIMATION (Cubic Yards) : ____

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: <1,000' NEAREST SURFACE WATER: <1,000' NMOCD TPH CLOSURE STD: 100 ppm

SITE SKETCH

PLOT PLAN circle: attached



OVM CALIB. READ. = 53.2 ppm RF = 0.52
OVM CALIB. GAS = 100 ppm
TIME: 10:20 (am)pm DATE: 10/17/11

MISCELL. NOTES

WO: N1410908
PO #: 55519
PK: ZSCHWLLBGT
PJ #: Z2-00690-C

Tank ID Permit date: NA
BGT Sidewalls Visible: Y / N / NA
BGT Sidewalls Visible: Y / N / NA
Magnetic declination: 10° E

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

TRAVEL NOTES: CALLOUT: ____ ONSITE: 10/17/11

CLIENT: BP

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

API #: 3004522198
TANK ID (if applicble): A

FIELD REPORT:

(circle one): BGT CONFIRMATION | RELEASE INVESTIGATION | OTHER:

PAGE #: 2 of 2

SITE INFORMATION:

SITE NAME: ULIBARRI GC # 1A

QUAD/UNIT: O SEC: 35 TWP: 30N RNG: 9W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 910'S / 1,620'E SW/SE LEASE TYPE: FEDERAL / STATE / FEE / INDIAN

LEASE #: - PROD. FORMATION: MV CONTRACTOR: PAUL & SONS MBF - D. DECKER

DATE STARTED: 06/25/12

DATE FINISHED:

ENVIRONMENTAL SPECIALIST(S): JCB

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.76329 X 107.74612 GL ELEV.: 5,626'

1)	300 BBL PROD. TANK	GPS COORD.:	36.76314 X 107.74657	DISTANCE/BEARING FROM W.H.: 141', S75.5W
2)		GPS COORD.:		DISTANCE/BEARING FROM W.H.:
3)		GPS COORD.:		DISTANCE/BEARING FROM W.H.:
4)		GPS COORD.:		DISTANCE/BEARING FROM W.H.:

SAMPLING DATA:

CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL

						OVM READING (ppm)
1)	SAMPLE ID: TH #4 thru TH #11 (see lab COCR for depths)	SAMPLE DATE: 06/25/12	SAMPLE TIME: 1011-1355	LAB ANALYSIS: 8015/8021/300.0		
2)	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:		
3)	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:		
4)	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:		

SOIL DESCRIPTION:

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER

SOIL COLOR: MOSTLY DARK BROWN (0 - 7 FT.) (@7 FT.)

COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED

HC ODOR DETECTED: YES / NO EXPLANATION - PHYSICALLY EVIDENT IN DISCOLORED SOILS ONLY.

SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. NA

DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - > 7 FT. BELOW GRADE AT TH #4 & TH #6 ONLY

ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION -

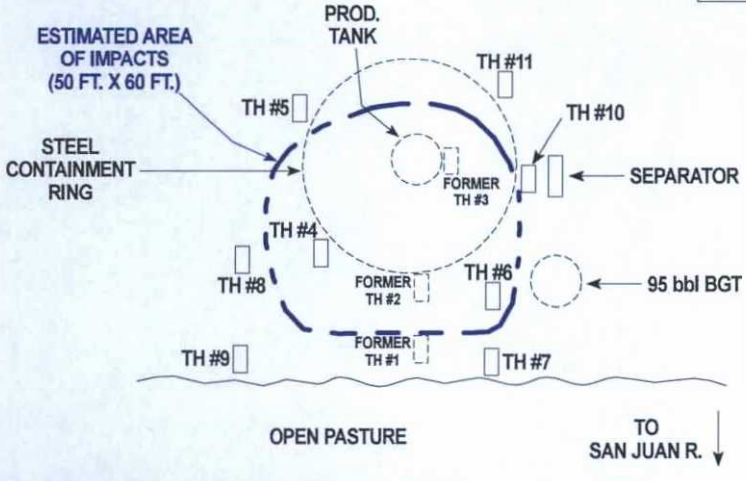
ADDITIONAL COMMENTS: FOLLOW UP INVESTIGATION FROM INITIAL DISCOVERY ON 10/17/11.

SOIL IMPACT DIMENSION ESTIMATION: 50 ft. X 60 ft. X ? ft. EXCAVATION ESTIMATION (Cubic Yards) : ?

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: <1,000' NEAREST SURFACE WATER: <1,000' NMOCD TPH CLOSURE STD: 100 ppm

SITE SKETCH

PLOT PLAN circle: attached



OVM CALIB. READ. = 53.1 ppm RF = 0.52

OVM CALIB. GAS = 100 ppm

TIME: 11:05 am/pm DATE: 06/25/12

MISCELL. NOTES

WO: N1578179

PO #:

PK: ZPEACJDENV

PJ #:

Tank ID Permit date: NA

BGT Sidewalls Visible: Y / N / NA

BGT Sidewalls Visible: Y / N / NA

Magnetic declination: 10° E

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

TRAVEL NOTES: CALLOUT: ONSITE: 06/25/12

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Oct-11*
Analytical Report

CLIENT:	Blagg Engineering	**Client Sample ID:**	TH-1 @ 7'
Lab Order:	1110913	**Collection Date:**	10/17/2011 9:50:00 AM
Project:	Ulibarri GC 1A	**Date Received:**	10/18/2011
Lab ID:	1110913-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/22/2011 2:29:38 AM
Surr: DNOP	96.4	73.4-123		%REC	1	10/22/2011 2:29:38 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/20/2011 12:10:41 PM
Surr: BFB	93.4	75.2-136		%REC	1	10/20/2011 12:10:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Oct-11*
Analytical Report

CLIENT:	Blagg Engineering	**Client Sample ID:**	TH-2 @ 7'
Lab Order:	1110913	**Collection Date:**	10/17/2011 10:00:00 AM
Project:	Ulibarri GC 1A	**Date Received:**	10/18/2011
Lab ID:	1110913-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	750	9.8		mg/Kg	1	10/22/2011 2:58:47 AM
Surr: DNOP	99.9	73.4-123		%REC	1	10/22/2011 2:58:47 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	780	25		mg/Kg	5	10/20/2011 12:39:34 PM
Surr: BFB	606	75.2-136	S	%REC	5	10/20/2011 12:39:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Oct-11*
Analytical Report

CLIENT:	Blagg Engineering	**Client Sample ID:**	TH-3 @ 4'
Lab Order:	1110913	**Collection Date:**	10/17/2011 10:05:00 AM
Project:	Ulibarri GC 1A	**Date Received:**	10/18/2011
Lab ID:	1110913-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	1300	52		mg/Kg	5	10/22/2011 8:01:28 AM
Surr: DNOP	112	73.4-123		%REC	5	10/22/2011 8:01:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	5400	100		mg/Kg	20	10/20/2011 1:08:23 PM
Surr: BFB	607	75.2-136	S	%REC	20	10/20/2011 1:08:23 PM

Qualifiers:

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

Analytical Report
Lab Order **1206B98**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-001 **Matrix:** SOIL

Client Sample ID: TH4 @ 8'
Collection Date: 6/25/2012 10:11:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	16	10		mg/Kg	1	6/30/2012 9:23:38 PM
Surr: DNOP	103	77.6-140		%REC	1	6/30/2012 9:23:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	7.5		mg/Kg	5	7/3/2012 9:10:21 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.24		mg/Kg	5	7/5/2012 4:30:18 PM
Toluene	0.59	0.24		mg/Kg	5	7/5/2012 4:30:18 PM
Ethylbenzene	0.43	0.24		mg/Kg	5	7/5/2012 4:30:18 PM
Xylenes, Total	5.9	0.48		mg/Kg	5	7/5/2012 4:30:18 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	5	7/5/2012 4:30:18 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	5	7/5/2012 4:30:18 PM
Surr: Dibromofluoromethane	81.1	71.7-132		%REC	5	7/5/2012 4:30:18 PM
Surr: Toluene-d8	86.9	70-130		%REC	5	7/5/2012 4:30:18 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	200	24		mg/Kg	5	7/5/2012 4:30:18 PM
Surr: BFB	97.9	70-130		%REC	5	7/5/2012 4:30:18 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-002 **Matrix:** SOIL

Client Sample ID: TH5 @ 7.5'
Collection Date: 6/25/2012 10:29:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/30/2012 10:30:27 PM
Surr: DNOP	108	77.6-140		%REC	1	6/30/2012 10:30:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	7.5		mg/Kg	5	7/3/2012 8:20:42 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.049		mg/Kg	1	7/3/2012 10:04:39 PM
Toluene	ND	0.049		mg/Kg	1	7/3/2012 10:04:39 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/3/2012 10:04:39 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/3/2012 10:04:39 PM
Surr: 1,2-Dichloroethane-d4	81.5	70-130		%REC	1	7/3/2012 10:04:39 PM
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	1	7/3/2012 10:04:39 PM
Surr: Dibromofluoromethane	82.1	71.7-132		%REC	1	7/3/2012 10:04:39 PM
Surr: Toluene-d8	89.6	70-130		%REC	1	7/3/2012 10:04:39 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/3/2012 10:04:39 PM
Surr: BFB	90.4	70-130		%REC	1	7/3/2012 10:04:39 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-003 **Matrix:** SOIL

Client Sample ID: TH6 @ 7.5'
Collection Date: 6/25/2012 11:02:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	310	10		mg/Kg	1	6/30/2012 10:52:41 PM
Surr: DNOP	110	77.6-140		%REC	1	6/30/2012 10:52:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	15		mg/Kg	10	7/3/2012 9:47:35 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	18	2.4		mg/Kg	50	7/4/2012 1:47:03 AM
Toluene	ND	2.4		mg/Kg	50	7/4/2012 1:47:03 AM
Ethylbenzene	23	2.4		mg/Kg	50	7/4/2012 1:47:03 AM
Xylenes, Total	260	4.8		mg/Kg	50	7/4/2012 1:47:03 AM
Surr: 1,2-Dichloroethane-d4	83.1	70-130		%REC	50	7/4/2012 1:47:03 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	50	7/4/2012 1:47:03 AM
Surr: Dibromofluoromethane	78.9	71.7-132		%REC	50	7/4/2012 1:47:03 AM
Surr: Toluene-d8	87.5	70-130		%REC	50	7/4/2012 1:47:03 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	3500	240		mg/Kg	50	7/4/2012 1:47:03 AM
Surr: BFB	96.6	70-130		%REC	50	7/4/2012 1:47:03 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-004 **Matrix:** SOIL

Client Sample ID: TH7 @ 7.5'
Collection Date: 6/25/2012 11:14:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2012 11:14:50 PM
Surr: DNOP	109	77.6-140		%REC	1	6/30/2012 11:14:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	7.5		mg/Kg	5	7/3/2012 3:22:52 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	7/4/2012 2:14:46 AM
Toluene	ND	0.048		mg/Kg	1	7/4/2012 2:14:46 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/4/2012 2:14:46 AM
Xylenes, Total	ND	0.095		mg/Kg	1	7/4/2012 2:14:46 AM
Surr: 1,2-Dichloroethane-d4	81.9	70-130		%REC	1	7/4/2012 2:14:46 AM
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	1	7/4/2012 2:14:46 AM
Surr: Dibromofluoromethane	81.1	71.7-132		%REC	1	7/4/2012 2:14:46 AM
Surr: Toluene-d8	87.1	70-130		%REC	1	7/4/2012 2:14:46 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/4/2012 2:14:46 AM
Surr: BFB	90.7	70-130		%REC	1	7/4/2012 2:14:46 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-005 **Matrix:** SOIL

Client Sample ID: TH8 @ 7.5'
Collection Date: 6/25/2012 11:32:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/30/2012 11:59:03 PM
Surr: DNOP	109	77.6-140		%REC	1	6/30/2012 11:59:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	15		mg/Kg	10	7/3/2012 4:49:44 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.049		mg/Kg	1	7/4/2012 2:42:28 AM
Toluene	ND	0.049		mg/Kg	1	7/4/2012 2:42:28 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/4/2012 2:42:28 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/4/2012 2:42:28 AM
Surr: 1,2-Dichloroethane-d4	83.2	70-130		%REC	1	7/4/2012 2:42:28 AM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	1	7/4/2012 2:42:28 AM
Surr: Dibromofluoromethane	83.3	71.7-132		%REC	1	7/4/2012 2:42:28 AM
Surr: Toluene-d8	88.7	70-130		%REC	1	7/4/2012 2:42:28 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/4/2012 2:42:28 AM
Surr: BFB	91.8	70-130		%REC	1	7/4/2012 2:42:28 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-006 **Matrix:** SOIL

Client Sample ID: TH9 @ 7.5'
Collection Date: 6/25/2012 11:43:00 AM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/1/2012 12:21:13 AM
Surr: DNOP	111	77.6-140		%REC	1	7/1/2012 12:21:13 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	7.5		mg/Kg	5	7/3/2012 4:24:55 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	7/4/2012 3:10:05 AM
Toluene	ND	0.048		mg/Kg	1	7/4/2012 3:10:05 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/4/2012 3:10:05 AM
Xylenes, Total	ND	0.096		mg/Kg	1	7/4/2012 3:10:05 AM
Surr: 1,2-Dichloroethane-d4	82.1	70-130		%REC	1	7/4/2012 3:10:05 AM
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	1	7/4/2012 3:10:05 AM
Surr: Dibromofluoromethane	79.5	71.7-132		%REC	1	7/4/2012 3:10:05 AM
Surr: Toluene-d8	87.7	70-130		%REC	1	7/4/2012 3:10:05 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/4/2012 3:10:05 AM
Surr: BFB	88.0	70-130		%REC	1	7/4/2012 3:10:05 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-007 **Matrix:** SOIL

Client Sample ID: TH10 @ 7.5'
Collection Date: 6/25/2012 1:40:00 PM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/1/2012 12:43:14 AM
Surr: DNOP	111	77.6-140		%REC	1	7/1/2012 12:43:14 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	15		mg/Kg	10	7/3/2012 4:12:31 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	0.31	0.048		mg/Kg	1	7/5/2012 5:25:44 PM
Toluene	ND	0.048		mg/Kg	1	7/5/2012 5:25:44 PM
Ethylbenzene	0.18	0.048		mg/Kg	1	7/5/2012 5:25:44 PM
Xylenes, Total	2.6	0.097		mg/Kg	1	7/5/2012 5:25:44 PM
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%REC	1	7/5/2012 5:25:44 PM
Surr: 4-Bromofluorobenzene	88.2	70-130		%REC	1	7/5/2012 5:25:44 PM
Surr: Dibromofluoromethane	82.2	71.7-132		%REC	1	7/5/2012 5:25:44 PM
Surr: Toluene-d8	85.8	70-130		%REC	1	7/5/2012 5:25:44 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	22	4.8		mg/Kg	1	7/5/2012 5:25:44 PM
Surr: BFB	88.2	70-130		%REC	1	7/5/2012 5:25:44 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1206B98-008 **Matrix:** SOIL

Client Sample ID: TH11 @ 7.5'
Collection Date: 6/25/2012 1:55:00 PM
Received Date: 6/28/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/1/2012 1:05:19 AM
Surr: DNOP	111	77.6-140		%REC	1	7/1/2012 1:05:19 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	ND	7.5		mg/Kg	5	7/3/2012 7:55:53 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	7/4/2012 4:05:11 AM
Toluene	ND	0.048		mg/Kg	1	7/4/2012 4:05:11 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/4/2012 4:05:11 AM
Xylenes, Total	ND	0.095		mg/Kg	1	7/4/2012 4:05:11 AM
Surr: 1,2-Dichloroethane-d4	81.3	70-130		%REC	1	7/4/2012 4:05:11 AM
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	1	7/4/2012 4:05:11 AM
Surr: Dibromofluoromethane	77.1	71.7-132		%REC	1	7/4/2012 4:05:11 AM
Surr: Toluene-d8	88.0	70-130		%REC	1	7/4/2012 4:05:11 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/4/2012 4:05:11 AM
Surr: BFB	90.4	70-130		%REC	1	7/4/2012 4:05:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Analytical Report
Lab Order **1302920**
Date Reported: **3/4/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1302920-001 **Matrix:** SOIL

Client Sample ID: Northern Extent 3-pt comp @ 11'
Collection Date: 2/27/2013 9:49:00 AM
Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/1/2013 12:07:47 PM
Surr: DNOP	113	72.4-120		%REC	1	3/1/2013 12:07:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/1/2013 3:05:56 PM
Surr: BFB	114	84-116		%REC	1	3/1/2013 3:05:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	3/1/2013 3:05:56 PM
Toluene	ND	0.047		mg/Kg	1	3/1/2013 3:05:56 PM
Ethylbenzene	ND	0.047		mg/Kg	1	3/1/2013 3:05:56 PM
Xylenes, Total	ND	0.094		mg/Kg	1	3/1/2013 3:05:56 PM
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/1/2013 3:05:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	7.5		mg/Kg	5	3/1/2013 12:53:45 PM

Qualifiers:

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

Analytical Report
Lab Order **1303187**
Date Reported: **3/7/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303187-001
Matrix: MEOH (SOIL)

Client Sample ID: 95' S73W @ 11'-12'
Collection Date: 3/5/2013 9:15:00 AM
Received Date: 3/6/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/7/2013 10:34:20 AM
Surr: DNOP	101	72.4-120		%REC	1	3/7/2013 10:34:20 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/6/2013 1:19:29 PM
Surr: BFB	109	84-116		%REC	1	3/6/2013 1:19:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/6/2013 1:19:29 PM
Toluene	ND	0.050		mg/Kg	1	3/6/2013 1:19:29 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/6/2013 1:19:29 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/6/2013 1:19:29 PM
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	3/6/2013 1:19:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	7.5		mg/Kg	5	3/7/2013 9:10:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303187-002
Matrix: MEOH (SOIL)
Client Sample ID: 86' S59W @ 11'-12'
Collection Date: 3/5/2013 9:25:00 AM
Received Date: 3/6/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/7/2013 11:39:25 AM
Surr: DNOP	98.3	72.4-120		%REC	1	3/7/2013 11:39:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/6/2013 1:48:21 PM
Surr: BFB	110	84-116		%REC	1	3/6/2013 1:48:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/6/2013 1:48:21 PM
Toluene	ND	0.050		mg/Kg	1	3/6/2013 1:48:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/6/2013 1:48:21 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/6/2013 1:48:21 PM
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	3/6/2013 1:48:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	7.5		mg/Kg	5	3/7/2013 9:59:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303187-003
Matrix: MEOH (SOIL)
Client Sample ID: 125' S43W @ 11'-12'
Collection Date: 3/5/2013 9:35:00 AM
Received Date: 3/6/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/7/2013 12:01:10 PM
Surr: DNOP	101	72.4-120		%REC	1	3/7/2013 12:01:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/6/2013 2:17:09 PM
Surr: BFB	111	84-116		%REC	1	3/6/2013 2:17:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/6/2013 2:17:09 PM
Toluene	ND	0.050		mg/Kg	1	3/6/2013 2:17:09 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/6/2013 2:17:09 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/6/2013 2:17:09 PM
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/6/2013 2:17:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	7.5		mg/Kg	5	3/7/2013 10:24:27 AM

Qualifiers:

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

Analytical Report
Lab Order **1303374**
Date Reported: **3/14/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303374-001 **Matrix:** SOIL

Client Sample ID: 163' S48W @ 10'-12'
Collection Date: 3/7/2013 9:18:00 AM
Received Date: 3/8/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2013 10:31:30 AM
Surr: DNOP	102	72.4-120		%REC	1	3/11/2013 10:31:30 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	3/11/2013 10:22:01 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/8/2013 6:14:52 PM
Toluene	ND	0.050		mg/Kg	1	3/8/2013 6:14:52 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/8/2013 6:14:52 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/8/2013 6:14:52 PM
Surr: 1,2-Dichloroethane-d4	89.1	70-130		%REC	1	3/8/2013 6:14:52 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	3/8/2013 6:14:52 PM
Surr: Dibromofluoromethane	93.9	70-130		%REC	1	3/8/2013 6:14:52 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	3/8/2013 6:14:52 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/8/2013 6:14:52 PM
Surr: BFB	97.4	70-130		%REC	1	3/8/2013 6:14:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303374-002 **Matrix:** SOIL

Client Sample ID: 183' S54W @ 10'-12'
Collection Date: 3/7/2013 9:26:00 AM
Received Date: 3/8/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2013 10:53:12 AM
Surr: DNOP	106	72.4-120		%REC	1	3/11/2013 10:53:12 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	3/11/2013 10:59:14 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/8/2013 6:43:25 PM
Toluene	ND	0.050		mg/Kg	1	3/8/2013 6:43:25 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/8/2013 6:43:25 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/8/2013 6:43:25 PM
Surr: 1,2-Dichloroethane-d4	84.7	70-130		%REC	1	3/8/2013 6:43:25 PM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	1	3/8/2013 6:43:25 PM
Surr: Dibromofluoromethane	92.3	70-130		%REC	1	3/8/2013 6:43:25 PM
Surr: Toluene-d8	100	70-130		%REC	1	3/8/2013 6:43:25 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/8/2013 6:43:25 PM
Surr: BFB	91.8	70-130		%REC	1	3/8/2013 6:43:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303374-003 **Matrix:** SOIL

Client Sample ID: 188' S62W @ 10'-12'
Collection Date: 3/7/2013 9:32:00 AM
Received Date: 3/8/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/11/2013 11:14:58 AM
Surr: DNOP	109	72.4-120		%REC	1	3/11/2013 11:14:58 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	3/11/2013 11:11:39 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/8/2013 7:11:49 PM
Toluene	ND	0.050		mg/Kg	1	3/8/2013 7:11:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/8/2013 7:11:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/8/2013 7:11:49 PM
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	1	3/8/2013 7:11:49 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	3/8/2013 7:11:49 PM
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	3/8/2013 7:11:49 PM
Surr: Toluene-d8	97.8	70-130		%REC	1	3/8/2013 7:11:49 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/8/2013 7:11:49 PM
Surr: BFB	96.7	70-130		%REC	1	3/8/2013 7:11:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303374-004 **Matrix:** SOIL

Client Sample ID: 178' S68W @ 10'-12'
Collection Date: 3/7/2013 9:39:00 AM
Received Date: 3/8/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2013 11:36:43 AM
Surr: DNOP	105	72.4-120		%REC	1	3/11/2013 11:36:43 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	3/11/2013 11:24:03 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/8/2013 7:40:01 PM
Toluene	ND	0.050		mg/Kg	1	3/8/2013 7:40:01 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/8/2013 7:40:01 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/8/2013 7:40:01 PM
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	1	3/8/2013 7:40:01 PM
Surr: 4-Bromofluorobenzene	90.3	70-130		%REC	1	3/8/2013 7:40:01 PM
Surr: Dibromofluoromethane	93.8	70-130		%REC	1	3/8/2013 7:40:01 PM
Surr: Toluene-d8	96.3	70-130		%REC	1	3/8/2013 7:40:01 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/8/2013 7:40:01 PM
Surr: BFB	90.3	70-130		%REC	1	3/8/2013 7:40:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Ulibarri GC 1A
Lab ID: 1303374-005 **Matrix:** SOIL

Client Sample ID: 152' S74W @ 10'-12'
Collection Date: 3/7/2013 9:53:00 AM
Received Date: 3/8/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2013 11:58:40 AM
Surr: DNOP	104	72.4-120		%REC	1	3/11/2013 11:58:40 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	3/11/2013 11:36:28 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	3/8/2013 8:08:14 PM
Toluene	ND	0.050		mg/Kg	1	3/8/2013 8:08:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	3/8/2013 8:08:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	3/8/2013 8:08:14 PM
Surr: 1,2-Dichloroethane-d4	88.8	70-130		%REC	1	3/8/2013 8:08:14 PM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	1	3/8/2013 8:08:14 PM
Surr: Dibromofluoromethane	94.9	70-130		%REC	1	3/8/2013 8:08:14 PM
Surr: Toluene-d8	99.2	70-130		%REC	1	3/8/2013 8:08:14 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/8/2013 8:08:14 PM
Surr: BFB	95.6	70-130		%REC	1	3/8/2013 8:08:14 PM

Qualifiers:

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

Analytical Report
Lab Order **1305026**
Date Reported: **5/16/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ULIBARRI GC # 1A/#2
Lab ID: 1305026-001 **Matrix:** AQUEOUS

Client Sample ID: MW # 1
Collection Date: 4/29/2013 11:00:00 AM
Received Date: 5/1/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/3/2013 12:28:43 AM	R10280
Toluene	ND	1.0		µg/L	1	5/3/2013 12:28:43 AM	R10280
Ethylbenzene	ND	1.0		µg/L	1	5/3/2013 12:28:43 AM	R10280
Xylenes, Total	ND	2.0		µg/L	1	5/3/2013 12:28:43 AM	R10280
Surr: 4-Bromofluorobenzene	99.0	69.4-129		%REC	1	5/3/2013 12:28:43 AM	R10280
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.56	0.10		mg/L	1	5/1/2013 9:36:57 PM	R10269
Chloride	4.6	0.50		mg/L	1	5/1/2013 9:36:57 PM	R10269
Sulfate	78	10		mg/L	20	5/2/2013 6:43:21 PM	R10292
Nitrate+Nitrite as N	ND	1.0		mg/L	5	5/2/2013 11:53:36 PM	R10292
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	1.8	0.10	*	mg/L	5	5/9/2013 1:11:30 PM	R10516
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	570	200	*	mg/L	1	5/5/2013 5:03:00 PM	7282

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
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
Project: ULIBARRI GC # 1A/#2
Lab ID: 1305026-002 **Matrix:** AQUEOUS

Client Sample ID: MW # 2
Collection Date: 4/29/2013 3:10:00 PM
Received Date: 5/1/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	4.9	1.0		µg/L	1	5/3/2013 12:58:59 AM	R10280
Toluene	1.3	1.0		µg/L	1	5/3/2013 12:58:59 AM	R10280
Ethylbenzene	3.4	1.0		µg/L	1	5/3/2013 12:58:59 AM	R10280
Xylenes, Total	29	2.0		µg/L	1	5/3/2013 12:58:59 AM	R10280
Surr: 4-Bromofluorobenzene	104	69.4-129		%REC	1	5/3/2013 12:58:59 AM	R10280
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.51	0.10		mg/L	1	5/1/2013 10:01:47 PM	R10269
Chloride	4.0	0.50		mg/L	1	5/1/2013 10:01:47 PM	R10269
Sulfate	59	10		mg/L	20	5/2/2013 6:55:46 PM	R10292
Nitrate+Nitrite as N	ND	1.0		mg/L	5	5/3/2013 12:06:01 AM	R10292
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.30	0.020	*	mg/L	1	5/9/2013 1:13:43 PM	R10516
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	550	200	*	mg/L	1	5/5/2013 5:03:00 PM	7282

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
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
Project: ULIBARRI GC # 1A/#2
Lab ID: 1305026-003 **Matrix:** AQUEOUS

Client Sample ID: MW # 3
Collection Date: 4/29/2013 1:20:00 PM
Received Date: 5/1/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/3/2013 1:29:10 AM	R10280
Toluene	ND	1.0		µg/L	1	5/3/2013 1:29:10 AM	R10280
Ethylbenzene	ND	1.0		µg/L	1	5/3/2013 1:29:10 AM	R10280
Xylenes, Total	ND	2.0		µg/L	1	5/3/2013 1:29:10 AM	R10280
Surr: 4-Bromofluorobenzene	99.0	69.4-129		%REC	1	5/3/2013 1:29:10 AM	R10280
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	0.64	0.10		mg/L	1	5/1/2013 10:26:36 PM	R10269
Chloride	4.6	0.50		mg/L	1	5/1/2013 10:26:36 PM	R10269
Sulfate	130	10		mg/L	20	5/2/2013 7:08:11 PM	R10292
Nitrate+Nitrite as N	ND	1.0		mg/L	5	5/3/2013 12:18:26 AM	R10292
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	1.7	0.10	*	mg/L	5	5/9/2013 1:16:05 PM	R10516
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	690	200	*	mg/L	1	5/5/2013 5:03:00 PM	7282

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

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: ULIBARRI GC 1A
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: Yes
Sample Temperature: 1.9

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. 1110913	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
10/17/11	0950	SOIL	TH-1 @ 7'	4oz x1	COOL	-1			X													
"	1000	"	TH-2 @ 7'	"	"	-2			X													
"	1005	"	TH-3 @ 4'	"	"	-3			X													

Remarks: GRO + DRO ON 8015
WO: N 1410908
PK: ZPEACJDENV

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/11	1422	Jeffrey C. Blagg	Christine Walters	10/17/11	1422
10/17/11	1635	Christine Walters			

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

Chain-of-Custody Record

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

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: ULIBARRI GC 1A
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 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. 1206598	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
6/25/12	1011	SOIL	TH4@8'	4ozx1	COOL	-001	X		X									X				
"	1029	"	TH5@7½'	"	"	-002	X		X									X				
"	1102	"	TH6@7½'	"	"	-003	X		X									X				
"	1114	"	TH7@7½'	"	"	-004	X		X									X				
"	1132	"	TH8@7½'	"	"	-005	X		X									X				
"	1143	"	TH9@7½'	"	"	-006	X		X									X				
"	1340	"	TH10@7½'	"	"	-007	X		X									X				
"	1355	"	TH11@7½'	"	"	-008	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/27/12	1541	[signature]	[signature]	6/27/12	1541
Date:	Time:	Relinquished by:	Received by:	Date	Time
7/12	1759	[signature]	[signature]	06/28/12	

Remarks: GRO + DRO ON 8015B
WO: N1578179
PK: ZPEACJDENV
CONTACT: JEFF PEACE

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.

Chain-of-Custody Record

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

Turn-Around Time: By Monday 3/4/2013
☐ Standard ☒ Rush
Project Name: ULIBARRI GC 1A
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.7

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. 1302920	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
2/27/13	0949	SOIL	NORTHERN EXTENT 3-pt comp @ 11'-13'	4oz x 1	COOL	-001	X		X									X				

Date: 2/27/13 Time: 1430 Relinquished by: Jeff Blagg Received by: Christa Waelder Date: 2/27/13 Time: 1436
Date: 2/27/13 Time: 1720 Relinquished by: Christa Waelder Received by: 02/28/13 0959

Remarks: GRO + DRO ON 8015B
BILL BLAGG
BP contact: Jeff Peace

Chain-of-Custody Record

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

Turn-Around Time: By THURSDAY 3/7/2013
☐ Standard ☒ Rush
Project Name: ULIBARRI GC 1A
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1303187	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
3/5/2013	0915	SOIL	95'S73W@11'-12'	4oz x1	COOL	-001	X		X									X				
"	0925	"	86'S59W@11'-12'	"	"	-002	X		X									X				
"	0935	"	125'S43W@11'-12'	"	"	-003	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/5/13	1405	Jeff Blagg	Christa Waller	3/5/13	1405
3/5/13	1740	Christa Waller		03/06/13	0953

Remarks: GRO + DRO ON 9015B
BILL BLAGG
BP contact: Jeff Peace

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

Chain-of-Custody Record

Client: Blagg Engineering Inc.
BP America
Mailing Address: P.O. Box 87
Bloomfield NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: By Monday 3/4/2013
☐ Standard ☒ Rush
Project Name: Ulibarri GC 1A
Project #:
Project Manager: J. Blagg
Sampler: J. Blagg
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
3/1/13	0918	Soil	163'S48W @10'-12'	4oz x 1 Mesh Kit	Cool	1303374-001	X		X									X				
"	0926	"	183'S54W @10'-12'	"	"	-002	X		X									X				
"	0932	"	188'S62W @10'-12'	"	"	-003	X		X									X				
"	0939	"	178'S68W @10'-12'	"	"	-004	X		X									X				
"	0953	"	152'S74W @10'-12'	"	"	-005	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/1/13	1504	Jeff Blagg	Christine Walker	3/1/13	1504
3/1/13	1758	Christine Walker	Michelle Garcia	03/08/13	1020

Remarks:
Bill Blagg
BP Contact: Jeff Peace

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

Chain-of-Custody Record

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

Mailing Address: **P.O. BOX 87**

BLOOMFIELD, NM 87413

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

email or Fax#:

QA/QC Package:

☑ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☑ Standard ☐ Rush

Project Name:

ULIBARRI GC # 1A / # 2

Project #:

Project Manager:

JEFF BLAGG

Sampler: **NELSON VELEZ** NV

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. 1305026	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,~~NO3,NO2,PO4,~~SO4)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N			Grab sample	5 pt. composite sample	
4/29/13	1100	WATER	MW # 1	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
4/29/13	1100	WATER	MW # 1	500 ml - 1	Cool									✓	✓					✓		
4/29/13	1100	WATER	MW # 1	250 ml - 1	HNO_3 & Cool											✓				✓		
4/29/13	1100	WATER	MW # 1	250 ml - 1	H_2SO_4												✓			✓		
4/29/13	1510	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-002	✓													✓		
4/29/13	1510	WATER	MW # 2	500 ml - 1	Cool									✓	✓					✓		
4/29/13	1510	WATER	MW # 2	250 ml - 1	HNO_3 & Cool											✓				✓		
4/29/13	1510	WATER	MW # 2	250 ml - 1	H_2SO_4												✓			✓		
4/29/13	1320	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-003	✓													✓		
4/29/13	1320	WATER	MW # 3	500 ml - 1	Cool									✓	✓					✓		
4/29/13	1320	WATER	MW # 3	250 ml - 1	HNO_3 & Cool											✓				✓		
4/29/13	1320	WATER	MW # 3	250 ml - 1	H_2SO_4												✓			✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/30/13	816		Christine Walters	4/30/13	816
4/30/13	1740	Christine Walters		05/01/13	0950

Remarks: **BP Contact: Jeff Peace**

Send invoice to :

Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Ulibarri GC 1A **Work Order:** 1110913

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-28968		*MBLK*				Batch ID:	**28968**	Analysis Date:	10/20/2011 10:32:25 PM		
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-28968		*LCS*				Batch ID:	**28968**	Analysis Date:	10/20/2011 11:02:36 PM		
Diesel Range Organics (DRO)	54.45	mg/Kg	10	50	0	109	66.7	119			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1110913-01A MSD		*MSD*				Batch ID:	**28975**	Analysis Date:	10/20/2011 9:20:24 PM		
Gasoline Range Organics (GRO)	33.95	mg/Kg	5.0	25	0	136	72.4	149	1.75	19.2	
Sample ID: MB-28975		*MBLK*				Batch ID:	**28975**	Analysis Date:	10/20/2011 4:03:24 PM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-28975		*LCS*				Batch ID:	**28975**	Analysis Date:	10/20/2011 11:12:58 AM		
Gasoline Range Organics (GRO)	29.65	mg/Kg	5.0	25	0	119	86.4	132			
Sample ID: 1110913-01A MS		*MS*				Batch ID:	**28975**	Analysis Date:	10/20/2011 8:51:36 PM		
Gasoline Range Organics (GRO)	33.36	mg/Kg	5.0	25	0	133	72.4	149			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date Received: 10/18/2011

Work Order Number 1110913 | Received by: LNM

Checklist completed by: _____ 10/18/11 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	1.9°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206B98**

12-Jul-12

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID	**MB-2690**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**2690**		RunNo:	**3861**				
Prep Date:	**7/3/2012**	Analysis Date:	**7/3/2012**		SeqNo:	**109558**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-2690**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**2690**		RunNo:	**3861**				
Prep Date:	**7/3/2012**	Analysis Date:	**7/3/2012**		SeqNo:	**109561**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206B98**

12-Jul-12

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-2638**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **2638**	RunNo: **3783**
Prep Date: **6/29/2012**	Analysis Date: **6/30/2012**	SeqNo: **107010** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		106	77.6	140			

Sample ID **LCS-2638**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **2638**	RunNo: **3783**
Prep Date: **6/29/2012**	Analysis Date: **6/30/2012**	SeqNo: **107012** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.3	52.6	130			
Surr: DNOP	3.9		5.000		77.7	77.6	140			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206B98**

12-Jul-12

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID **mb-2629**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **2629**	RunNo: **3860**
Prep Date: **6/28/2012**	Analysis Date: **7/3/2012**	SeqNo: **109692** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.1	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.2	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		84.1	71.7	132			
Surr: Toluene-d8	0.43		0.5000		86.3	70	130			

Sample ID **lcs-2629**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **2629**	RunNo: **3860**
Prep Date: **6/28/2012**	Analysis Date: **7/3/2012**	SeqNo: **109717** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	97.8	70.7	123			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.2	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.2	70	130			
Surr: Dibromofluoromethane	0.40		0.5000		80.1	71.7	132			
Surr: Toluene-d8	0.43		0.5000		85.4	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206B98**

12-Jul-12

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID **mb-2629**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **2629**	RunNo: **3860**
Prep Date: **6/28/2012**	Analysis Date: **7/3/2012**	SeqNo: **109463** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	450		500.0		90.2	70	130			

Sample ID **LCS-2629**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **2629**	RunNo: **3860**
Prep Date: **6/28/2012**	Analysis Date: **7/3/2012**	SeqNo: **109466** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	85	115			S
Surr: BFB	430		500.0		85.9	70	130			

Qualifiers:

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

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: 1206B98

Received by/date: AG 06/28/12

Logged By: Anne Thorne 6/28/2012 10:00:00 AM Anne Thorne

Completed By: Anne Thorne 6/28/2012 Anne Thorne

Reviewed By: 06/28/12

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1302920**

04-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6291** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **6291** RunNo: **8926**
Prep Date: **3/1/2013** Analysis Date: **3/1/2013** SeqNo: **254932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-6291** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **6291** RunNo: **8926**
Prep Date: **3/1/2013** Analysis Date: **3/1/2013** SeqNo: **254933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.1	90	110			

Sample ID **1302929-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **6291** RunNo: **8926**
Prep Date: **3/1/2013** Analysis Date: **3/1/2013** SeqNo: **254949** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	1.5	15.00	6.050	90.2	64.4	117			

Sample ID **1302929-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **6291** RunNo: **8926**
Prep Date: **3/1/2013** Analysis Date: **3/1/2013** SeqNo: **254950** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	1.5	15.00	6.050	90.7	64.4	117	0.349	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1302920**

04-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6278**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6278**	RunNo: **8891**
Prep Date: **2/28/2013**	Analysis Date: **2/28/2013**	SeqNo: **254152** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		106	72.4	120			

Sample ID **LCS-6278**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6278**	RunNo: **8891**
Prep Date: **2/28/2013**	Analysis Date: **2/28/2013**	SeqNo: **254153** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	47.4	122			
Surr: DNOP	5.6		5.000		112	72.4	120			

Sample ID **1302919-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6278**	RunNo: **8907**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254671** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	10.89	92.0	12.6	148			
Surr: DNOP	6.3		5.000		127	72.4	120			S

Sample ID **1302919-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6278**	RunNo: **8907**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	10.89	89.9	12.6	148	1.89	22.5	
Surr: DNOP	6.2		5.000		125	72.4	120	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1302920**

04-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6284**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254976** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	84	116			

Sample ID **LCS-6284**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254977** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	62.6	136			
Surr: BFB	1100		1000		113	84	116			

Sample ID **1302917-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254980** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.6	23.15	0	129	70	130			
Surr: BFB	1100		925.9		119	84	116			S

Sample ID **1302917-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **254981** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.6	22.98	0	135	70	130	4.21	22.1	S
Surr: BFB	1100		919.1		117	84	116	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1302920**

04-Mar-13

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID **MB-6284**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **255094** Units: **mg/Kg**

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

Sample ID **LCS-6284**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **6284**	RunNo: **8927**
Prep Date: **2/28/2013**	Analysis Date: **3/1/2013**	SeqNo: **255100** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.1	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1302920

Received by/date: AG 02/28/13

Logged By: **Michelle Garcia** 2/28/2013 9:59:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 2/28/2013 10:35:13 AM Michelle Garcia

Reviewed By: IO 02/28/2013

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303187**

07-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID	**MB-6369**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**6369**		RunNo:	**9043**				
Prep Date:	**3/7/2013**	Analysis Date:	**3/7/2013**		SeqNo:	**257814**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-6369**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**6369**		RunNo:	**9043**				
Prep Date:	**3/7/2013**	Analysis Date:	**3/7/2013**		SeqNo:	**257815**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.5	90	110			

Sample ID	**1303187-001BMS**	SampType:	**MS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**95' S73W @ 11'-12'**	Batch ID:	**6369**		RunNo:	**9043**				
Prep Date:	**3/7/2013**	Analysis Date:	**3/7/2013**		SeqNo:	**257817**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.438	86.3	64.4	117			

Sample ID	**1303187-001BMSD**	SampType:	**MSD**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**95' S73W @ 11'-12'**	Batch ID:	**6369**		RunNo:	**9043**				
Prep Date:	**3/7/2013**	Analysis Date:	**3/7/2013**		SeqNo:	**257818**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.438	87.0	64.4	117	0.675	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303187**

07-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6353**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6353**	RunNo: **9026**
Prep Date: **3/6/2013**	Analysis Date: **3/7/2013**	SeqNo: **257536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		103	72.4	120			

Sample ID **LCS-6353**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6353**	RunNo: **9026**
Prep Date: **3/6/2013**	Analysis Date: **3/7/2013**	SeqNo: **257611** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.7	47.4	122			
Surr: DNOP	5.3		5.000		106	72.4	120			

Sample ID **1303187-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **95' S73W @ 11'-12'**	Batch ID: **6353**	RunNo: **9026**
Prep Date: **3/6/2013**	Analysis Date: **3/7/2013**	SeqNo: **257721** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.7	48.45	0	97.0	12.6	148			
Surr: DNOP	5.1		4.845		106	72.4	120			

Sample ID **1303187-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **95' S73W @ 11'-12'**	Batch ID: **6353**	RunNo: **9026**
Prep Date: **3/6/2013**	Analysis Date: **3/7/2013**	SeqNo: **257723** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.97	0	97.8	12.6	148	5.91	22.5	
Surr: DNOP	5.5		5.097		107	72.4	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303187**

07-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6334** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS** Batch ID: **R8996** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257436** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	84	116			

Sample ID **LCS-6334** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS** Batch ID: **R8996** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257437** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	62.6	136			
Surr: BFB	1200		1000		115	84	116			

Sample ID **MB-6334** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS** Batch ID: **6334** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257443** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		105	84	116			

Sample ID **LCS-6334** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS** Batch ID: **6334** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257444** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		115	84	116			

Sample ID **1303099-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **6334** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257447** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		947.0		117	84	116			S

Sample ID **1303099-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **6334** RunNo: **8996**
Prep Date: **3/5/2013** Analysis Date: **3/6/2013** SeqNo: **257448** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		948.8		117	84	116	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303187**

07-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6334**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R8996**	RunNo: **8996**
Prep Date: **3/5/2013**	Analysis Date: **3/6/2013**	SeqNo: **257464** Units: **mg/Kg**

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

Sample ID **LCS-6334**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R8996**	RunNo: **8996**
Prep Date: **3/5/2013**	Analysis Date: **3/6/2013**	SeqNo: **257465** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.93	0.050	1.000	0	93.5	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **MB-6334**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **6334**	RunNo: **8996**
Prep Date: **3/5/2013**	Analysis Date: **3/6/2013**	SeqNo: **257473** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **LCS-6334**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **6334**	RunNo: **8996**
Prep Date: **3/5/2013**	Analysis Date: **3/6/2013**	SeqNo: **257474** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **1303122-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **6334**	RunNo: **8996**
Prep Date: **3/5/2013**	Analysis Date: **3/6/2013**	SeqNo: **257479** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9372		110	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303187**

07-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID	**1303122-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**6334**	RunNo:	**8996**					
Prep Date:	**3/5/2013**	Analysis Date:	**3/6/2013**	SeqNo:	**257480**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9372		108	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1303187

Received by/date: AG 03/06/13

Logged By: **Michelle Garcia** 3/6/2013 9:53:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 3/6/2013 10:11:39 AM Michelle Garcia

Reviewed By: IO 03/06/2013

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6415** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259480** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-6415** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.2	90	110			

Sample ID **1303374-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **163' S48W @ 10'-12'** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	6.318	76.4	64.4	117			

Sample ID **1303374-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **163' S48W @ 10'-12'** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259484** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	6.318	80.8	64.4	117	0	20	

Sample ID **1303395-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259494** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.320	86.7	64.4	117			

Sample ID **1303395-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **6415** RunNo: **9111**
Prep Date: **3/11/2013** Analysis Date: **3/11/2013** SeqNo: **259495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	7.5	15.00	3.320	82.0	64.4	117	4.39	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **MB-6403**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6403**	RunNo: **9086**
Prep Date: **3/8/2013**	Analysis Date: **3/11/2013**	SeqNo: **258731** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		105	72.4	120			

Sample ID **LCS-6403**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6403**	RunNo: **9086**
Prep Date: **3/8/2013**	Analysis Date: **3/11/2013**	SeqNo: **259007** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	47.4	122			
Surr: DNOP	5.6		5.000		112	72.4	120			

Sample ID **1303336-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6403**	RunNo: **9099**
Prep Date: **3/8/2013**	Analysis Date: **3/12/2013**	SeqNo: **259283** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.7	48.73	0	107	12.6	148			
Surr: DNOP	5.0		4.873		102	72.4	120			

Sample ID **1303336-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6403**	RunNo: **9099**
Prep Date: **3/8/2013**	Analysis Date: **3/12/2013**	SeqNo: **259284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	51.76	0	113	12.6	148	11.5	22.5	
Surr: DNOP	5.5		5.176		106	72.4	120	0	0	

Sample ID **MB-6400**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6400**	RunNo: **9099**
Prep Date: **3/8/2013**	Analysis Date: **3/12/2013**	SeqNo: **259673** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	72.4	120			

Sample ID **LCS-6400**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6400**	RunNo: **9099**
Prep Date: **3/8/2013**	Analysis Date: **3/12/2013**	SeqNo: **259675** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		101	72.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID	1303331-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	6400		RunNo:	9099				
Prep Date:	3/8/2013	Analysis Date:	3/12/2013		SeqNo:	259695	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.198		108	72.4	120			

Sample ID	1303331-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	6400		RunNo:	9099				
Prep Date:	3/8/2013	Analysis Date:	3/12/2013		SeqNo:	259748	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		4.780		105	72.4	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering

Project: Ulibarri GC 1A

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/8/2013**	SeqNo: **258899** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.1	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.3	70	130			
Surr: Toluene-d8	0.47		0.5000		93.2	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/8/2013**	SeqNo: **258900** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	70	130			
Toluene	1.0	0.050	1.000	0	104	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.3	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.9	70	130			
Surr: Toluene-d8	0.46		0.5000		91.2	70	130			

Sample ID **1303370-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/9/2013**	SeqNo: **258910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.050	0.6741	0.003526	101	67.5	124			
Toluene	0.71	0.050	0.6741	0	106	55.8	142			
Surr: 1,2-Dichloroethane-d4	0.30		0.3370		89.0	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3370		93.7	70	130			
Surr: Dibromofluoromethane	0.31		0.3370		93.2	70	130			
Surr: Toluene-d8	0.33		0.3370		96.9	70	130			

Sample ID **1303370-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/9/2013**	SeqNo: **258911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.050	0.6741	0.003526	107	67.5	124	5.09	20	
Toluene	0.71	0.050	0.6741	0	105	55.8	142	0.0834	20	
Surr: 1,2-Dichloroethane-d4	0.31		0.3370		92.7	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **1303370-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/9/2013**	SeqNo: **258911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.31		0.3370		91.9	70	130	0	0	
Surr: Dibromofluoromethane	0.33		0.3370		98.4	70	130	0	0	
Surr: Toluene-d8	0.34		0.3370		99.5	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303374**

14-Mar-13

Client: Blagg Engineering
Project: Ulibarri GC 1A

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/8/2013**	SeqNo: **258886** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/8/2013**	SeqNo: **258889** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	74.6	137			
Surr: BFB	460		500.0		91.8	70	130			

Sample ID **1303374-001a ms g**	SampType: **MS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **163' S48W @ 10'-12'**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/9/2013**	SeqNo: **258897** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	18.76	0	96.9	50.3	148			
Surr: BFB	340		375.2		89.9	70	130			

Sample ID **1303374-001a msd g**	SampType: **MSD**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **163' S48W @ 10'-12'**	Batch ID: **R9062**	RunNo: **9062**
Prep Date:	Analysis Date: **3/9/2013**	SeqNo: **258898** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	18.76	0	95.8	50.3	148	1.12	20	
Surr: BFB	340		375.2		90.8	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1303374

Received by/date: MG 03/08/13

Logged By: **Anne Thorne** 3/8/2013 10:00:00 AM Ann Thorne

Completed By: **Anne Thorne** 3/8/2013 Ann Thorne

Reviewed By:

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305026**

16-May-13

Client: Blagg Engineering

Project: ULIBARRI GC # 1A/#2

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R10516**	RunNo: **10516**
Prep Date:	Analysis Date: **5/9/2013**	SeqNo: **297227** 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: **R10516**	RunNo: **10516**
Prep Date:	Analysis Date: **5/9/2013**	SeqNo: **297228** 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.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305026**

16-May-13

Client: Blagg Engineering
Project: ULIBARRI GC # 1A/#2

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R10269**	RunNo: **10269**
Prep Date:	Analysis Date: **5/1/2013**	SeqNo: **292821** 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								

Sample ID **LCS-b**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R10269**	RunNo: **10269**
Prep Date:	Analysis Date: **5/1/2013**	SeqNo: **292823** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.7	90	110			
Chloride	4.6	0.50	5.000	0	92.5	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R10292**	RunNo: **10292**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293414** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: **R10292**	RunNo: **10292**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293415** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	95.1	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.1	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305026**

16-May-13

Client: Blagg Engineering
Project: ULIBARRI GC # 1A/#2

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R10280**	RunNo: **10280**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293191** 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		102	69.4	129			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R10280**	RunNo: **10280**
Prep Date:	Analysis Date: **5/2/2013**	SeqNo: **293192** 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	100	80	120			
Ethylbenzene	20	1.0	20.00	0	100	80	120			
Xylenes, Total	61	2.0	60.00	0	101	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		105	69.4	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305026**

16-May-13

Client: Blagg Engineering

Project: ULIBARRI GC # 1A/#2

Sample ID **MB-7282**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **7282**	RunNo: **10312**
Prep Date: **5/3/2013**	Analysis Date: **5/5/2013**	SeqNo: **293852** 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-7282**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **7282**	RunNo: **10312**
Prep Date: **5/3/2013**	Analysis Date: **5/5/2013**	SeqNo: **293853** Units: **mg/L**

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

Qualifiers:

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

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 8710[illegible]
TEL: 505-345-3975 FAX: 505-345-410[illegible]
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1305026 | RcptNo: 1

Received by/date: 05/01/13

Logged By: Lindsay Mangin 5/1/2013 9:50:00 AM

Completed By: Lindsay Mangin 5/1/2013 1:12:37 PM

Reviewed By: 05/01/2013

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: 12 (<2 or >12 unless noted)

Adjusted? NO.

Checked by:

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			