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: A. L. Elliott D 2A	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004522337

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
J	11	29N	9W	1,800	South	1,500	East	

Latitude 36.73696 **Longitude** 107.74421

NATURE OF RELEASE

Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: below grade tank – 95 bbl, Tank A	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 3/27/2012; 11:38 AM
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.	

RCVD MAR 6 '14
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Soil beneath the BGT showed evidence of impacts during removal. Soil analysis resulted in BTEX and chloride below standards, but TPH exceeded the standard. Analysis results are attached. Impacted soil was excavated.

Describe Area Affected and Cleanup Action Taken.* Soils beneath the BGT were sampled and impacts were found from immediately below the BGT to a depth of 15-16.5 feet. Impacted soil was removed to 16-20 feet, but due to the sandy soil the excavation was caving in at that depth and additional digging and sampling was not feasible. A test hole dug near the BGT cellar to 13-14 feet deep, where it also started caving in showed no impacts. The excavation area was backfilled so drilling could be done to determine the extent of the impacts. Borehole samples in the center of the excavation tested at 20-21.5 feet and 25-26.5 feet below the surface were below the TPH standard of 100 mg/kg. A borehole dug immediately next to the excavation site and sampled at 25-26.5 feet showed no evidence of impacts, indicating the release was confined to the area directly below the BGT. A vent pipe consisting of 2 inch PVC with a screen interval from 10-20 feet was installed in the center of the excavation to remove residual hydrocarbons. Approximately 60 cubic yards of impacted soil were taken to the landfarm for treatment. Sample data, borehole diagrams, a site map and photos of the excavation 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: Jeff Peace	OIL CONSERVATION DIVISION
Printed Name: Jeff Peace	Approved by Environmental Specialist:
Title: Field Environmental Advisor	Approval Date: 1/13/15 Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval: Additional Dilineation was Required. Attached ☐
Date: February 28, 2014 Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

#NCS1501353625

19

CLIENT: BP

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

API #: 3004522337
TANK ID (if applicble): A ~~& B~~

FIELD REPORT:

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

PAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: A.L. ELLIOTT D #2A

QUAD/UNIT: J SEC: 11 TWP: 29N RNG: 9W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 1800'S / 1500'E NW/SE LEASE TYPE: FEDERAL / STATE / FEE / INDIAN

LEASE #: SF078132 PROD. FORMATION: MV CONTRACTOR: ELKHORN MBF - C. ZELLITTI

DATE STARTED: 03/27/12

DATE FINISHED:

ENVIRONMENTAL SPECIALIST(S): JCB

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.73721 X 107.74459 GL ELEV.: 5,925'

1)	~~21 BGT (SW/DB) (B)~~	GPS COORD.:	~~36.73701 X 107.74395~~	DISTANCE/BEARING FROM W.H.: ~~135', S50E~~
2)	95 BGT (SW/DB) (A)	GPS COORD.:	36.73696 X 107.74421	DISTANCE/BEARING FROM W.H.: 135', S50E
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: 21 BGT 5-PT @ 6' (B)~~	~~SAMPLE DATE: 03/27/12~~	~~SAMPLE TIME: 1100~~	~~LAB ANALYSIS: TPH/BTEX/Cl~~			~~0.0~~
2)	SAMPLE ID: 95 BGT 5-PT @ 6' (A)	SAMPLE DATE: 03/27/12	SAMPLE TIME: 1138	LAB ANALYSIS: TPH/BTEX/Cl			1,814
3)	SAMPLE ID: 95 BGT GRAB @ 12'	SAMPLE DATE: 03/27/12	SAMPLE TIME: 1145	LAB ANALYSIS: TPH (8015B)			1,873
4)	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:			

SOIL DESCRIPTION:

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

SOIL COLOR: ~~TAN @ 21 BGT~~ / GRAY BLACK @ 95 BGT

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 - @ 95 BGT

SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. 5

DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - GRAY / BLACK@ 95 BGT TO 12' BACKHOE LIMIT.

ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION -

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED : YES / NO EXPLANATION :

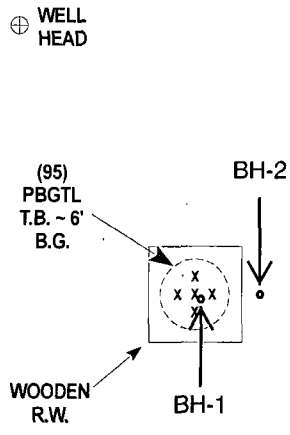
ADDITIONAL COMMENTS: ~~21 BGT NO APPARENT IMPACTS~~ INVESTIGATION REQUIRED @ 95 BGT TO ESTABLISH VERTICAL & LATERAL EXTENT.

SOIL IMPACT DIMENSION ESTIMATION: 12 ft. X 12 ft. X 12 ft. EXCAVATION ESTIMATION (Cubic Yards) : 40-60

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



Bore holes (BH) advanced on 10/12/12 using mobile drill rig.

X - S.P.D.

OVM CALIB. READ. = 52.7 ppm RF = 0.52

OVM CALIB. GAS = 100 ppm

TIME: 11:50 am/pm DATE: 3/27/12

MISCELL. NOTES

WO: N1511417

PO #: 71597

PK: ZSCHWLLBGT

PJ #:

OCD Appr. Date: 07/06/11

Tank ID Permit date: 05/10/11

A BGT Sidewalls Visible: Y / N

B BGT Sidewalls Visible: Y / N

Magnetic declination: 10° E

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; 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: 03/27/12

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 95 BGT 5-pt 6'
Project: A.L. Elliott D 2A
Collection Date: 3/27/2012 11:38:00 AM
Lab ID: 1203A01-002
Matrix: MEOH (SOIL)
Received Date: 3/28/2012 9:45:00 AM

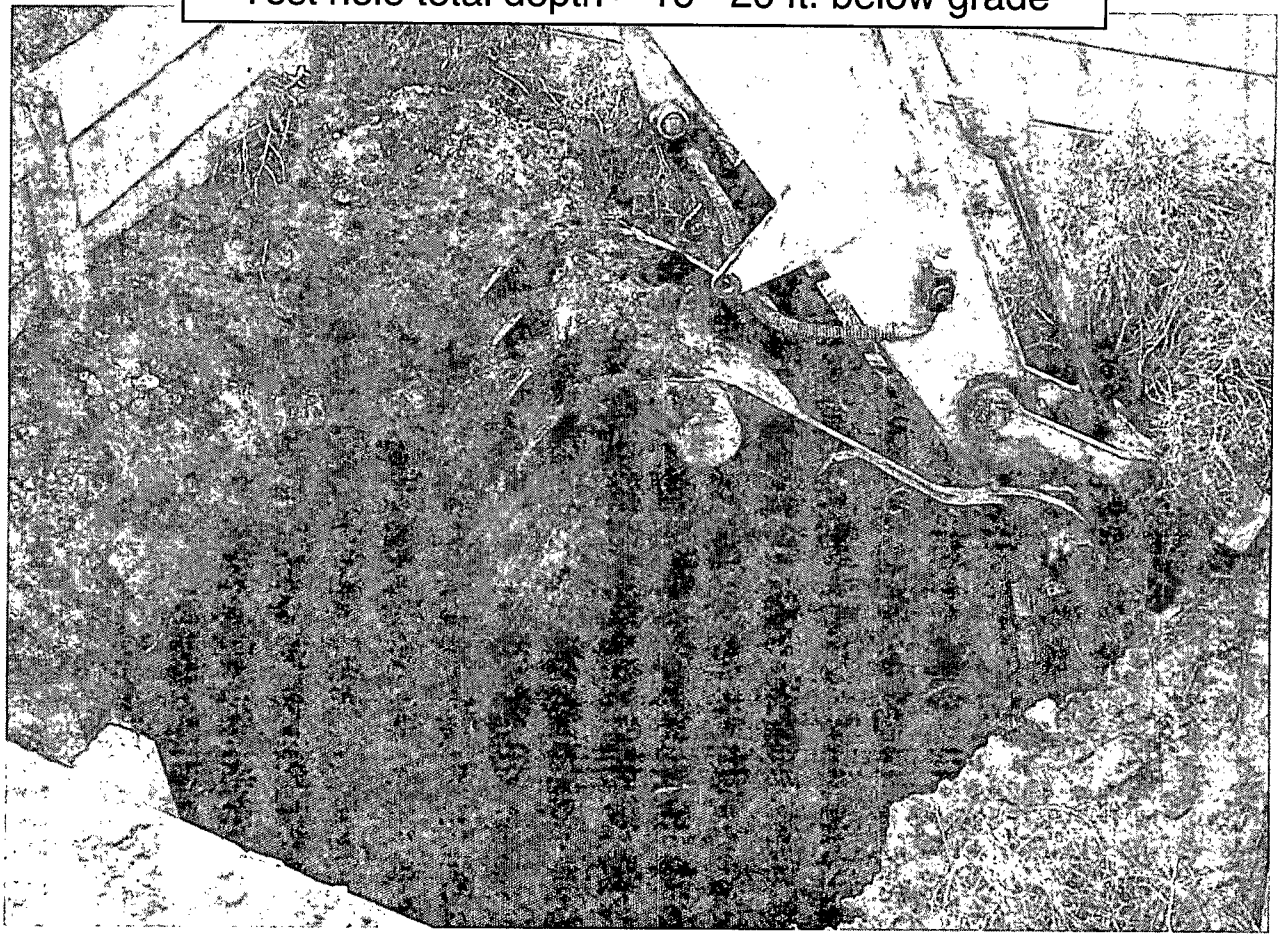
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	450	100		mg/Kg	10	3/29/2012 12:01:32 PM
Surr: DNOP	0	77.4-131	S	%REC	10	3/29/2012 12:01:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	310	50		mg/Kg	10	3/28/2012 12:59:21 PM
Surr: BFB	279	69.7-121	S	%REC	10	3/28/2012 12:59:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	10	3/28/2012 12:59:21 PM
Toluene	ND	0.50		mg/Kg	10	3/28/2012 12:59:21 PM
Ethylbenzene	0.96	0.50		mg/Kg	10	3/28/2012 12:59:21 PM
Xylenes, Total	18	1.0		mg/Kg	10	3/28/2012 12:59:21 PM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	10	3/28/2012 12:59:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	22	15		mg/Kg	10	3/29/2012 7:17:15 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	4,300	2,000		mg/Kg	100	3/30/2012

Qualifiers:

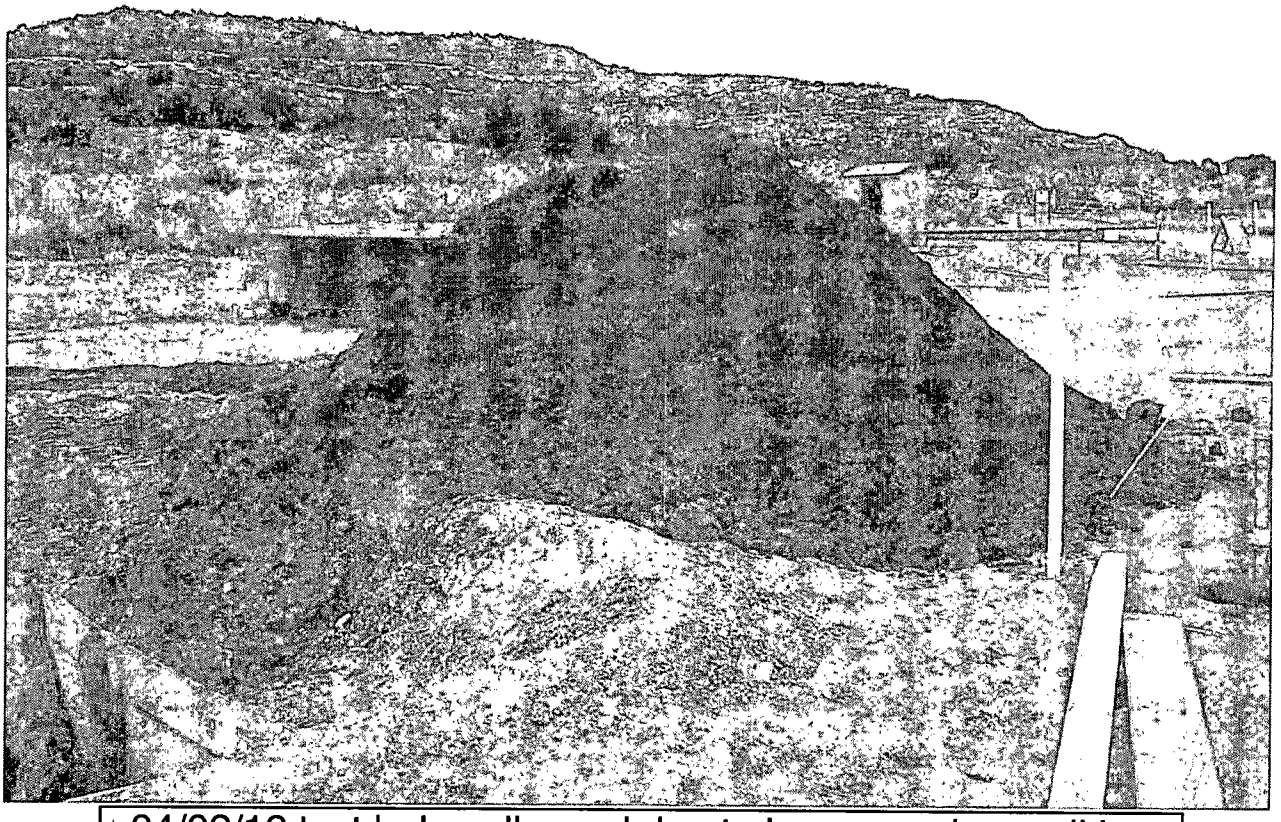
*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits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

AL Elliott D #2A 95 bbl BGT release - impacted soil removal 04/02/12

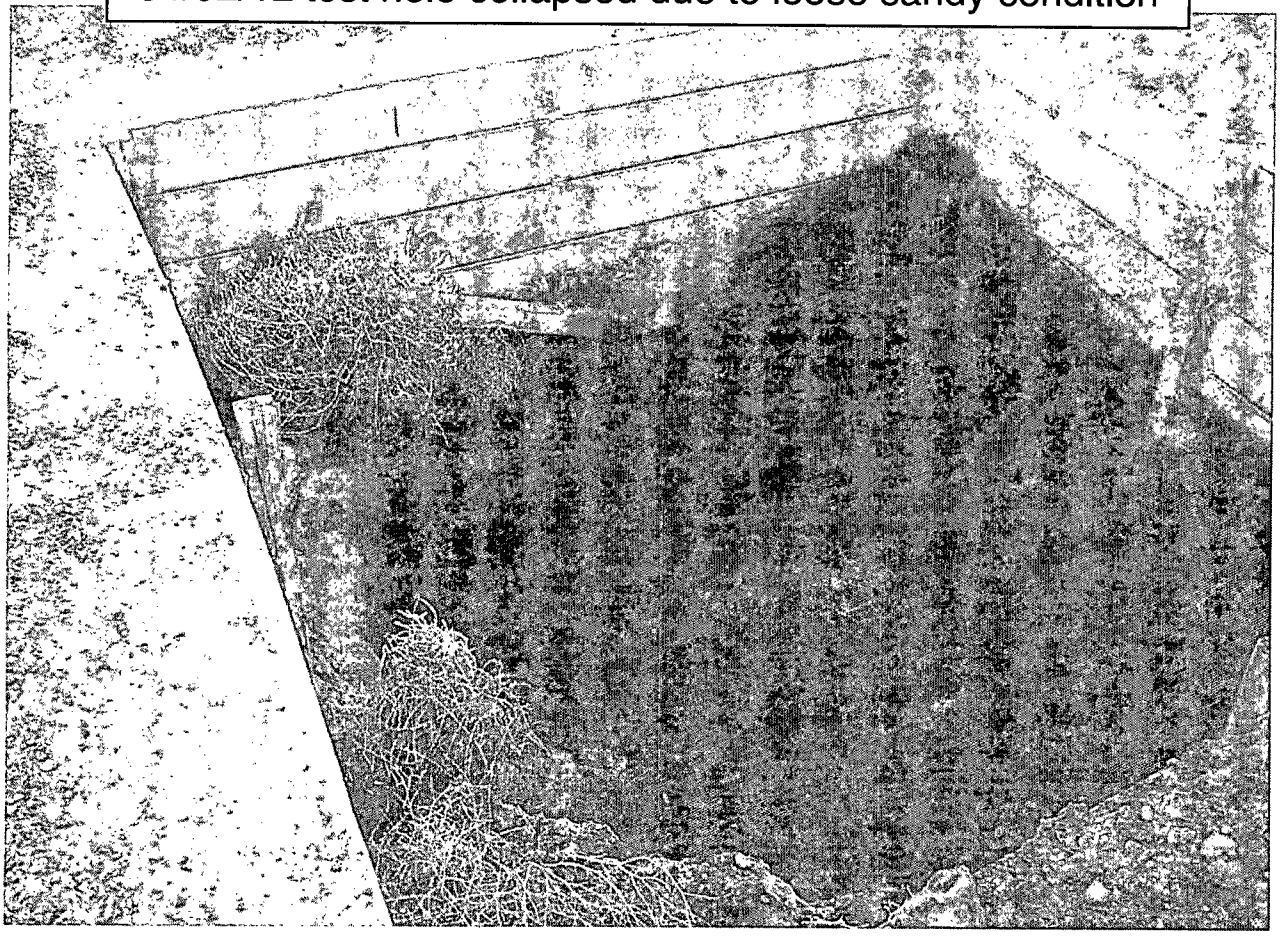
Test hole total depth ~ 16 - 20 ft. below grade



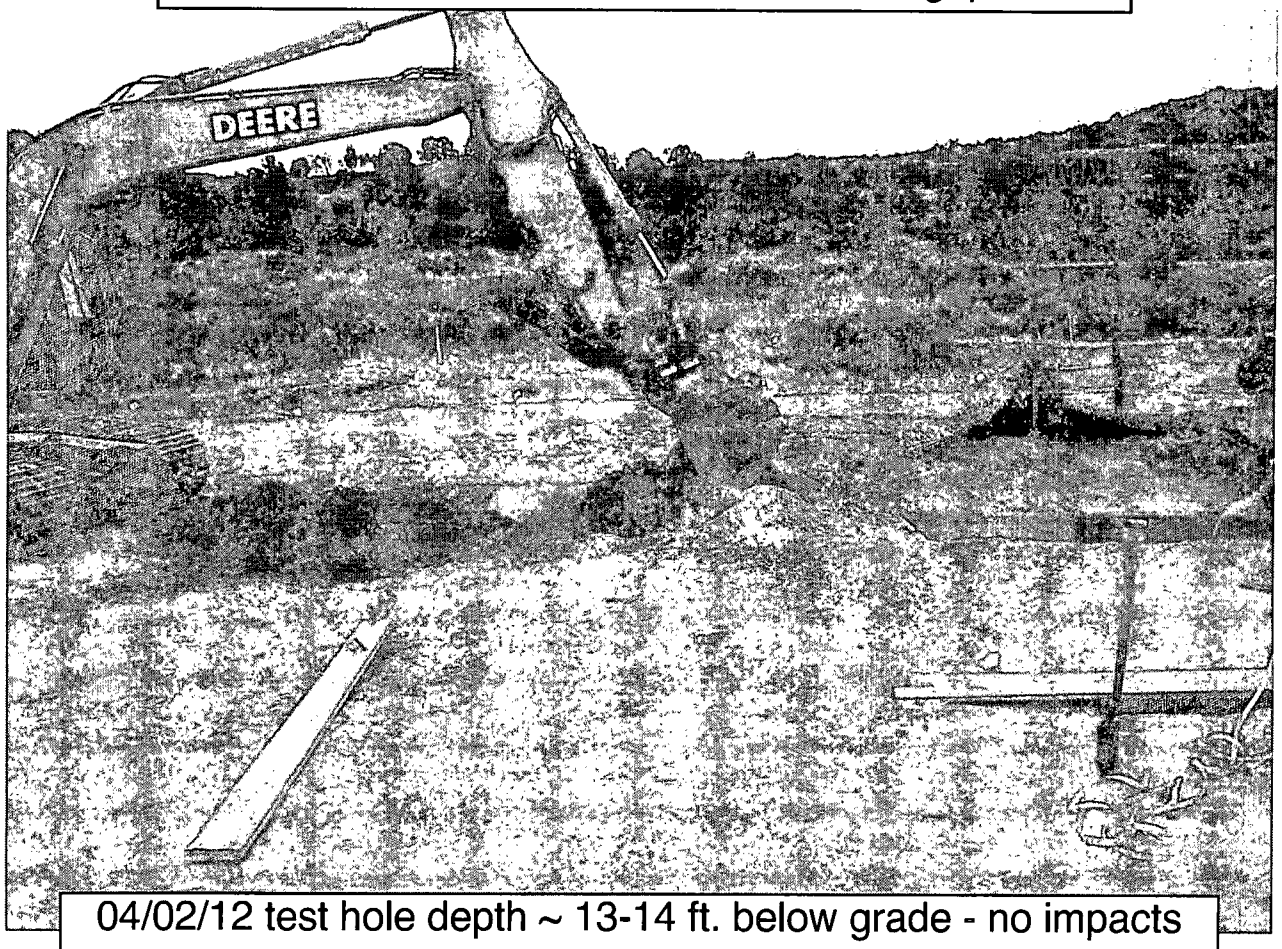
~40-60 cubic yards of impacted soil removed during test hole advancement on 04/02/12



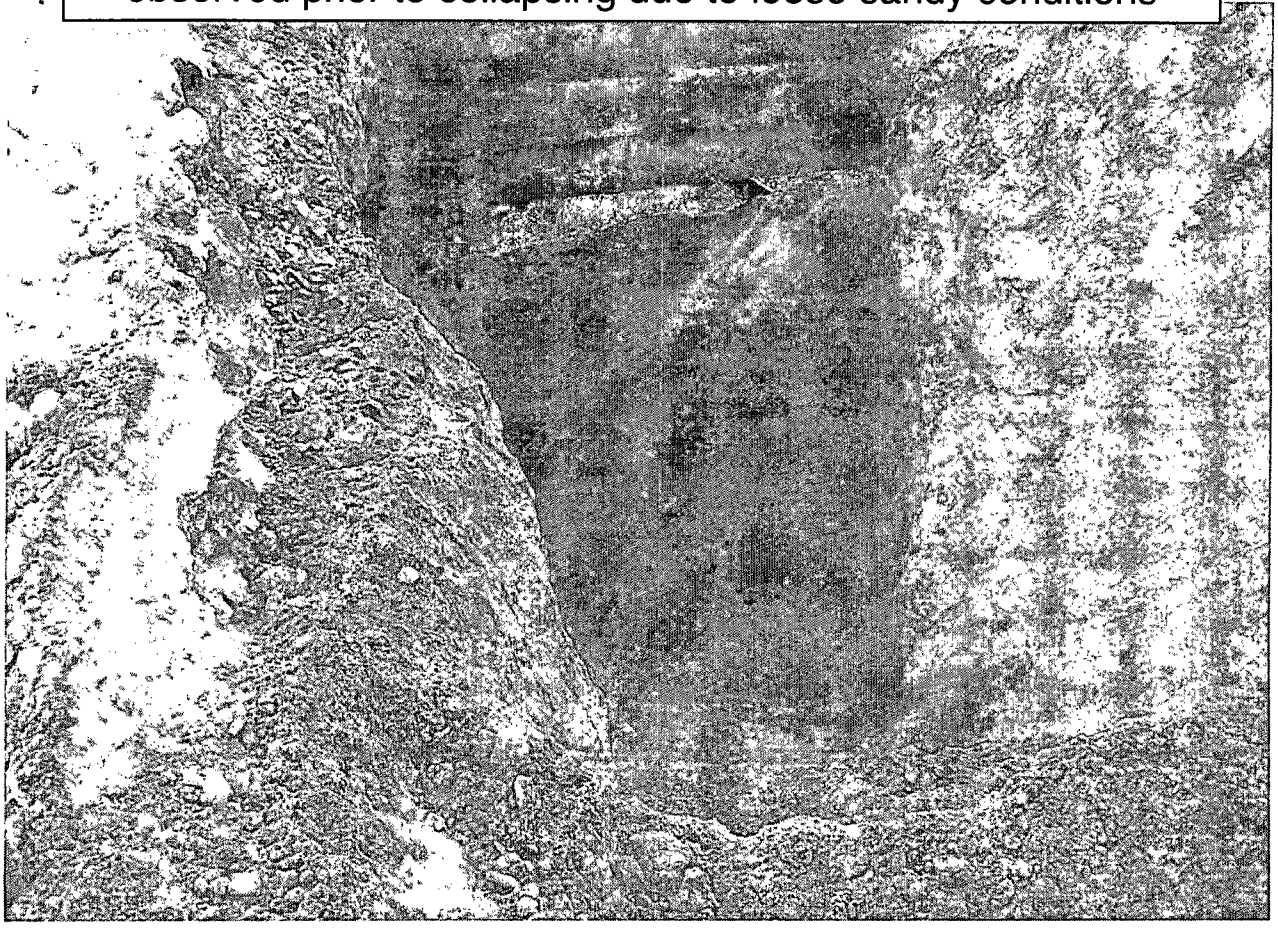
04/02/12 test hole collapsed due to loose sandy condition



04/02/12 test hole advancement east of bgt position



04/02/12 test hole depth ~ 13-14 ft. below grade - no impacts observed prior to collapsing due to loose sandy conditions



BLAGG ENGINEERING, INC.

P.O. BOX 87

BLOOMFIELD, NM 87413

(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	AL ELLIOTT D # 2A — UNIT J, SEC. 11, T29N, R9W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - HOLLOW STEM AUGER
BORING LOCATION:	148.3 FEET, S50.25E FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	N/A
PAGE #.....	1
DATE STARTED	10/04/12
DATE FINISHED	10/04/12
OPERATOR.....	KP
LOGGED BY.....	NJV

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	PIPING SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
			GROUND SURFACE					TOP OF CASING APPROXIMATELY AT GRADE.
2								
4								
6								DARK YELLOWISH ORANGE SAND TO SILTY SAND (FILL MATERIAL (CRUSHER FINES), NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 14.0 FT. BELOW GRADE).
8								
10			TOS 10.00 ft.					
12								
14								MEDIUM DARK GRAY SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST TO MOIST, FIRM, APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (14.0 - 18.0 FT. BELOW GRADE).
16				15.00 16.50	0830	79.3	1-1-1	TPH = 384 ppm; benzene = ND ppm; total BTEX = 1.2 ppm.
18								
20			TD 20.00 ft.	20.00 21.50	0838	0.0	2-3-2	SAME AS 0.0-14.0 FT. TPH = 40 ppm; benzene = ND ppm; total BTEX = ND ppm.
22								
24								
26				25.00 26.50	0845	0.0	5-8-9	SAME AS ABOVE. TPH = 59 ppm; benzene = ND ppm; total BTEX = ND ppm.
28								
30								
32								
34								
36								
38								
40								

NOTES:

- SAND TO SILTY SAND.
- SAND TO SILTY SAND (IMPACTED).
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.
- **OVM** - Organic vapor meter or photoionization detector (PID).
- **ppm** - parts per million or milligram per kilogram (mg/Kg).
- **TPH** - Total Petroleum Hydrocarbons per US EPA Method 8015B.
- **BTEX** - Benzene, toluene, ethylbenzene, total xylenes.
- **ND** - Not detected at the reporting limit (see laboratory reports).

ALL SAMPLES COLLECTED VIA SPLIT SPOON SAMPLER.

New Mexico Oil Conservation Division closure standards for the release location:

TPH = 100 ppm
Benzene = 10 ppm
Total BTEX = 50 ppm

OVM CALIBRATION:

52.5 ppm; RF = 0.52 (RF = response factor).
100 ppm calibration gas - isobutylene.
Date - 10/04/12.
Time - 0855.

Vent piping consist of 2 inch PVC - casing from 5.00 ft. below grade to 10.00 ft. below grade, 0.020 slotted screen between 10.00 to 20.00 ft. below grade, sand packed annular to 8.0 ft. below grade, bentonite grout between 5.0 to 8.0 ft. below grade, cuttings to surface.

DRAWING: AL ELLIOTT D 2A BH-1. SKF | DATE: 02/28/14 | DWN BY: NJV

BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	AL ELLIOTT D # 2A — UNIT J, SEC. 11, T29N, R9W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (CME 75) - HOLLOW STEM AUGER
BORING LOCATION:	152.5 FEET, S51.5E FROM WELL HEAD.

BORING #.....	BH - 2
MW #.....	N/A
PAGE #.....	2
DATE STARTED	10/04/12
DATE FINISHED	10/04/12
OPERATOR.....	KP
LOGGED BY.....	NJV

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2							
4							
6							
8							
10							
12							DARK YELLOWISH ORANGE SAND TO SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 25.0 FT. BELOW GRADE).
14							
16							
18							
20							
22							
24							
26			25.00 26.50	1101	0.0	4-10-12	SOIL - SAME AS ABOVE. TPH = ND ppm; benzene = ND ppm; total BTEX = ND ppm.
28							
30							
32							
34							
36							
38							
40							

NOTES:
- SAND TO SILTY SAND.
- **OVM** - Organic vapor meter or photoionization detector (PID).
- **ppm** - parts per million or milligram per kilogram (mg/Kg).
- **TPH** - Total Petroleum Hydrocarbons per US EPA Method 8015B.
- **BTEX** - Benzene, toluene, ethylbenzene, total xylenes.
- **ND** - Not detected at the reporting limit (see laboratory reports).

SAMPLE COLLECTED VIA SPLIT SPOON SAMPLER.

New Mexico Oil Conservation Division closure standards for the release location:
- TPH = 100 ppm
- Benzene = 10 ppm
- Total BTEX = 50 ppm

OVM CALIBRATION:
52.5 ppm; RF = 0.52
(RF = response factor).
100 ppm calibration gas
- isobutylene.
Date - 10/04/12.
Time - 0855.

DRAWING: AL ELLIOTT D 2A BH-2. SKF | DATE: 10/11/12 | DWN BY: NJV

Analytical Report
Lab Order **1210359**
Date Reported: **10/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: A. L. Elliott D #2A
Lab ID: 1210359-001 **Matrix:** SOIL

Client Sample ID: BH1 @ 15'-16.5' ~~(95)~~ NV
Collection Date: 10/4/2012 8:30:00 AM
Received Date: 10/5/2012 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	300	10		mg/Kg	1	10/10/2012 2:07:15 PM
Surr: DNOP	112	77.6-140		%REC	1	10/10/2012 2:07:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	84	20		mg/Kg	4	10/10/2012 3:44:34 PM
Surr: BFB	342	84-116	S	%REC	4	10/10/2012 3:44:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.20		mg/Kg	4	10/10/2012 3:44:34 PM
Toluene	ND	0.20		mg/Kg	4	10/10/2012 3:44:34 PM
Ethylbenzene	ND	0.20		mg/Kg	4	10/10/2012 3:44:34 PM
Xylenes, Total	1.2	0.39		mg/Kg	4	10/10/2012 3:44:34 PM
Surr: 4-Bromofluorobenzene	120	80-120	S	%REC	4	10/10/2012 3:44:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	ND	7.5		mg/Kg	5	10/10/2012 11:40:47 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: A. L. Elliott D #2A
Lab ID: 1210359-002 **Matrix:** SOIL

Client Sample ID: BH1 @ 20'-21.5' ~~(95)~~ NV
Collection Date: 10/4/2012 8:38:00 AM
Received Date: 10/5/2012 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	40	9.9		mg/Kg	1	10/10/2012 2:32:23 PM
Surr: DNOP	106	77.6-140		%REC	1	10/10/2012 2:32:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 5:25:36 PM
Surr: BFB	106	84-116		%REC	1	10/9/2012 5:25:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/9/2012 5:25:36 PM
Toluene	ND	0.050		mg/Kg	1	10/9/2012 5:25:36 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/9/2012 5:25:36 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/9/2012 5:25:36 PM
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	10/9/2012 5:25:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	ND	7.5		mg/Kg	5	10/10/2012 12:30:27 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: A. L. Elliott D #2A
Lab ID: 1210359-003 **Matrix:** SOIL

Client Sample ID: BH1 @ 25'-26.5' ~~(95)~~ NV
Collection Date: 10/4/2012 8:45:00 AM
Received Date: 10/5/2012 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	59	10		mg/Kg	1	10/10/2012 2:57:34 PM
Surr: DNOP	110	77.6-140		%REC	1	10/10/2012 2:57:34 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/9/2012 11:39:55 PM
Surr: BFB	105	84-116		%REC	1	10/9/2012 11:39:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	10/9/2012 11:39:55 PM
Toluene	ND	0.048		mg/Kg	1	10/9/2012 11:39:55 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/9/2012 11:39:55 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/9/2012 11:39:55 PM
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	10/9/2012 11:39:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	ND	7.5		mg/Kg	5	10/10/2012 12:55:16 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 **1210359**
Date Reported: **10/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: A. L. Elliott D #2A
Lab ID: 1210359-004 **Matrix:** SOIL

Client Sample ID: BH2 @ 25'-26.5' ~~(95)~~ NV
Collection Date: 10/4/2012 11:01:00 AM
Received Date: 10/5/2012 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/10/2012 12:32:31 PM
Surr: DNOP	94.5	77.6-140		%REC	1	10/10/2012 12:32:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/10/2012 12:08:39 AM
Surr: BFB	103	84-116		%REC	1	10/10/2012 12:08:39 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	10/10/2012 12:08:39 AM
Toluene	ND	0.047		mg/Kg	1	10/10/2012 12:08:39 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/10/2012 12:08:39 AM
Xylenes, Total	ND	0.094		mg/Kg	1	10/10/2012 12:08:39 AM
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	10/10/2012 12:08:39 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	13	7.5		mg/Kg	5	10/10/2012 12:05:37 PM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210359**

19-Oct-12

Client: Blagg Engineering

Project: A. L. Elliott D #2A

Sample ID **MB-4224**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID: **PBS**	Batch ID: **4224**			RunNo: **6131**					
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**			SeqNo: **176679**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-4224**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID: **LCSS**	Batch ID: **4224**			RunNo: **6131**					
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**			SeqNo: **176680**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Sample ID **1210389-001BMS**	SampType: **MS**			TestCode: **EPA Method 300.0: Anions**					
Client ID: **BatchQC**	Batch ID: **4224**			RunNo: **6131**					
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**			SeqNo: **176682**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	23	7.5	15.00	8.220	98.5	64.4	117			

Sample ID **1210389-001BMSD**	SampType: **MSD**			TestCode: **EPA Method 300.0: Anions**					
Client ID: **BatchQC**	Batch ID: **4224**			RunNo: **6131**					
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**			SeqNo: **176683**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	23	7.5	15.00	8.220	98.1	64.4	117	0.249	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#: **1210359**

19-Oct-12

Client: Blagg Engineering

Project: A. L. Elliott D #2A

Sample ID **MB-4192**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4192**	RunNo: **6108**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176064** 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-4192**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4192**	RunNo: **6108**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176065** 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	78.5	52.6	130			
Surr: DNOP	4.5		5.000		89.4	77.6	140			

Sample ID **1210356-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4192**	RunNo: **6108**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176408** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.35	0	91.3	57.2	146			
Surr: DNOP	4.4		5.035		87.0	77.6	140			

Sample ID **1210356-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4192**	RunNo: **6108**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176409** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	51.23	0	117	57.2	146	26.5	24.5	R
Surr: DNOP	4.0		5.123		77.3	77.6	140	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#: **1210359**

19-Oct-12

Client: Blagg Engineering

Project: A. L. Elliott D #2A

Sample ID **MB-4249**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177920** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.1		1.000		112	79.5	166			

Sample ID **LCS-4249**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177921** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.53		0.5000		105	79.5	166			

Sample ID **LCSD-4249**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177922** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.50		0.5000		101	79.5	166	0	0	

Qualifiers:

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- 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#: **1210359**

19-Oct-12

Client: Blagg Engineering

Project: A. L. Elliott D #2A

Sample ID **MB-4182**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4182**	RunNo: **6117**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **176252** 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		102	84	116			

Sample ID **LCS-4182**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4182**	RunNo: **6117**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **176254** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74	117			
Surr: BFB	1100		1000		105	84	116			

Sample ID **1210356-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4182**	RunNo: **6117**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **176258** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.7	23.56	0	109	70	130			
Surr: BFB	1000		942.5		110	84	116			

Sample ID **1210356-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4182**	RunNo: **6117**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **176259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.95	0	108	70	130	4.69	22.1	
Surr: BFB	1100		998.0		109	84	116	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#: **1210359**

19-Oct-12

Client: Blagg Engineering

Project: A. L. Elliott D #2A

Sample ID **MB-4182** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **4182** RunNo: **6117**

Prep Date: **10/8/2012** Analysis Date: **10/9/2012** SeqNo: **176280** 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		110	80	120			

Sample ID **LCS-4182** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **4182** RunNo: **6117**

Prep Date: **10/8/2012** Analysis Date: **10/9/2012** SeqNo: **176281** 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	109	76.3	117			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	77	116			
Xylenes, Total	3.3	0.10	3.000	0	108	76.7	117			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID **1210356-007AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **4182** RunNo: **6117**

Prep Date: **10/8/2012** Analysis Date: **10/9/2012** SeqNo: **176286** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9662	0.01274	117	67.2	113			S
Toluene	1.2	0.048	0.9662	0.02902	117	62.1	116			S
Ethylbenzene	1.2	0.048	0.9662	0.004127	119	67.9	127			
Xylenes, Total	3.5	0.097	2.899	0.01920	119	60.6	134			
Surr: 4-Bromofluorobenzene	1.1		0.9662		116	80	120			

Sample ID **1210356-007AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **4182** RunNo: **6117**

Prep Date: **10/8/2012** Analysis Date: **10/9/2012** SeqNo: **176287** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9737	0.01274	114	67.2	113	2.07	14.3	S
Toluene	1.1	0.049	0.9737	0.02902	114	62.1	116	2.13	15.9	
Ethylbenzene	1.1	0.049	0.9737	0.004127	116	67.9	127	2.41	14.4	
Xylenes, Total	3.4	0.097	2.921	0.01920	117	60.6	134	1.51	12.6	
Surr: 4-Bromofluorobenzene	1.1		0.9737		116	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: 1210359

Received by/date: CM 10/05/12

Logged By: **Anne Thorne** 10/5/2012 10:10:00 AM Anne Thorne

Completed By: **Anne Thorne** 10/5/2012 Anne Thorne

Reviewed By: AT 10/05/12

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

18. Additional remarks:

19. **Cooler Information**

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

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:
A.L. ELLIOTT D # 2A

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210359	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (300.0)		Grab sample	5 pt. composite sample
10/4/12	0830	SOIL	BH1 @ 15' - 16.5' ~~(95)~~ NV	4 oz. - 1	Cool	-001	✓		✓									✓		✓	
10/4/12	0838	SOIL	BH1 @ 20' - 21.5' ~~(95)~~ NV	4 oz. - 1	Cool	-002	✓		✓									✓		✓	
10/4/12	0845	SOIL	BH1 @ 25' - 26.5' ~~(95)~~ NV	4 oz. - 1	Cool	-003	✓		✓									✓		✓	
10/4/12	1101	SOIL	BH2 @ 25' - 26.5' ~~(95)~~ NV	4 oz. - 1	Cool	-004	✓		✓									✓		✓	

Date	Time	Relinquished by:	Received by:	Date	Time
10/4/12	1502			10/4/12	1502
10/4/12	1708			10/5/12	1010

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

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