

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: GCU Com B 143E	Facility Type: Natural gas well
Surface Owner: Private	Mineral Owner: Federal
API No. 3004524284	

LOCATION OF RELEASE

Unit Letter M	Section 25	Township 29	Range 12	Feet from the 1,105	North/South Line South	Feet from the 1,150	East/West Line West	County: San Juan
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Latitude 36.69341 Longitude 108.05567

NATURE OF RELEASE

Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: underground pipe to below grade tank	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: September 9, 2013; 9:35 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

RCVD MAR 24 '14
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* During construction operations to remove below grade tank (BGT) contaminated soil was discovered in the cellar. Soil immediately under the BGT showed no impacts. Likely cause is a leaking underground pipe to the BGT – tank integrity looked good. Borehole drilling showed limited impacts to the soil from 5 feet to 11 feet depth.

Describe Area Affected and Cleanup Action Taken.* Excavation was done to remove top soil and to remove impacted soil. Approximately 100 cubic yards of impacted soil was taken to the IEI landfarm for treatment. Excavation continued until remaining soil samples resulted in less than 100 ppm TPH. The excavated areas were backfilled with clean soil, the top soil was replaced and the area was compacted. A groundwater monitor well was installed to assess ground water impacts. Analysis results showed BTEX below standards.

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: <i>Jeff Peace</i>	OIL CONSERVATION DIVISION	
Printed Name: Jeff Peace	Approved by Environmental Specialist: <i>Carly...</i>	
Title: Field Environmental Advisor	Approval Date: <u>4-15-14</u>	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	
Date: March 18, 2014 Phone: 505-326-9479	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

Incident # NCS 1410650913 34

BP AMERICA PRODUCTION COMPANY

RELEASE INVESTIGATION & REMEDIATION OF SUBSURFACE PIPING

GCU Com B #143E

API #: 3004524284

Legal Description: (Unit Letter M, Sec. 25, T29N, R12W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. September 9, 2013 (Monday): During confirmation sampling to close a 95 barrel below-grade tank (bgt), discolored soil was observed in the northeast corner within the wooden cellar. There was no evidence of a loss of integrity from the bgt. The release mostly likely originated from subsurface piping leading into the bgt (see Field Report page 1 of 2). A test hole was advanced at the discoloration area using a backhoe to approximately 11 feet below grade. Field screening and lab analyses from the 5½ and 11 foot depths (lab reports attached) confirmed the impact to soils. Existing on-site groundwater monitor wells from a previous investigation recorded depth to water to be approximately 12 feet below grade.
2. February 6, 2014 (Thursday): Blagg Engineering, Inc. (BEI) was contacted to provide technical support and conduct sampling from the excavation sidewalls (see Field Report page 2 of 2). The lab results recorded all constituents to be non detect or well below the New Mexico Oil Conservation Division's closure standards according to its spill and release guidelines. Approximately 100 cubic yards of soil was excavated and transported to BP's Crouch Mesa Facility.
3. February 13, 2014 (Thursday): BEI was contacted to provide technical support for the installation of a groundwater monitor well (MW #4) at the point of release. Boring log and well completion data is attached.
4. February 17, 2014 (Monday): BEI conducted development/purging of MW #4 to eliminate sediment accumulation during the installation process. Approximately 20 gallons was purged and disposed into the on-site low profile above-grade tank.
5. February 18, 2014 (Tuesday): BEI conducted environmental sampling of MW #4 (Field Sampling Data Sheet attached).
6. February 27, 2014 (Thursday): BEI & BP received final lab reports for samples collected on 02/18/2014. The lab results recorded all constituents to be non detect or well below the New Mexico Water Quality Control Commission's groundwater closure standards.

CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	API #: 3004524284
		TANK ID (if applicable): A

FIELD REPORT:

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

PAGE #: **1** of **2**

SITE INFORMATION: SITE NAME: **GCU COM B #143E**

QUAD/UNIT: **M** SEC: **25** TWP: **29N** RING: **12W** PM: **NM** CNTY: **SJ** ST: **NM**

1/4 - 1/4 / FOOTAGE: **1,105'S / 1,150'W** **SW/SW** LEASE TYPE: FEDERAL / STATE / FEE / INDIAN

LEASE #: **-** PROD. FORMATION: **CHA** CONTRACTOR: **ELKHORN MBF - B. SCHUMAN**

DATE STARTED: **09/09/13**

DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST(S): **NJV**

REFERENCE POINT: WELL HEAD (W.H.) GPS COORD.: **36.69336 X 108.05600** GL ELEV.: **5,462'**

1) 95 BGT (SW/SB) GPS COORD.: 36.69341 X 108.05567 DISTANCE/BEARING FROM W.H.: 104', N79E
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**

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	LAB ANALYSIS	OVM READING (ppm)
1) 5 PC-TB @ 5.5' (95)	09/09/13	0930	418.1/8015B/8021B/300.0(CI)	NA
2) TH 1 @ 5.5'	09/09/13	0935	8015B/8021B/300.0(CI)	400
3) TH 1 @ 7.5'	09/09/13	0941	NA	337
4) TH 1 @ 11'	09/09/13	0953	8015B/8021B/300.0(CI)	355

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

SOIL COLOR: **DARK YELLOWISH ORANGE TO OLIVE GRAY**

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

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

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

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

DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - **BETWEEN 5.5' - 7.5' BELOW GRADE (DARKER SHADE OF OLIVE GRAY), CLEARED UP TO 11', BUT STILL REMAINED IMPACTED WITH SIMILAR OVM. READING.**

ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION - _____

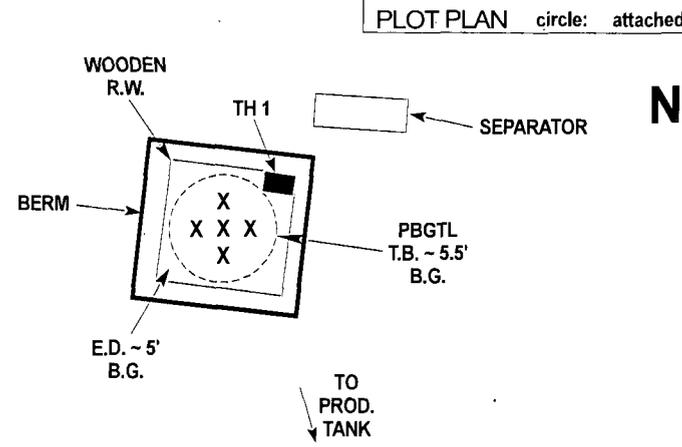
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: **DISCOLORED SOIL IN NE CORNER OF WOODEN**

ADDITIONAL COMMENTS: **IMPACTS DISCOVERED DO NOT APPEAR TO RESULT FROM BGT LOSS INTEGRITY, BUT RATHER FROM PIPING FROM SEPARATOR TO BGT. RETAINING WALL.**

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: **10:11** am DATE: **09/09/13**

MISCELL. NOTES

WO: **N15210983**

PO #: _____

PK: **ZEVH01BGT2**

PJ #: **Z2-006Q0**

Permit date(s): **06/14/10**

OCD Appr. date(s): **04/22/13**

Tank ID	OVM = Organic Vapor Meter ppm = parts per million
A	BGT Sidewalls Visible: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N

Magnetic declination: **10° E**

X - S.P.D.

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: **09/09/13**

FIELD REPORT:

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

PAGE #: **2** of **2**

SITE INFORMATION: SITE NAME: **GCU COM B #143E**
QUAD/UNIT: **M** SEC: **25** TWP: **29N** RNG: **12W** PM: **NM** CNTY: **SJ** ST: **NM**
1/4 -1/4/FOOTAGE: **1,105'S / 1,150'W** **SW/SW** LEASE TYPE: **FEDERAL / STATE / [FEE] INDIAN**
LEASE #: **-** PROD. FORMATION: **CHA** CONTRACTOR: **MBF - F. ARAGON**

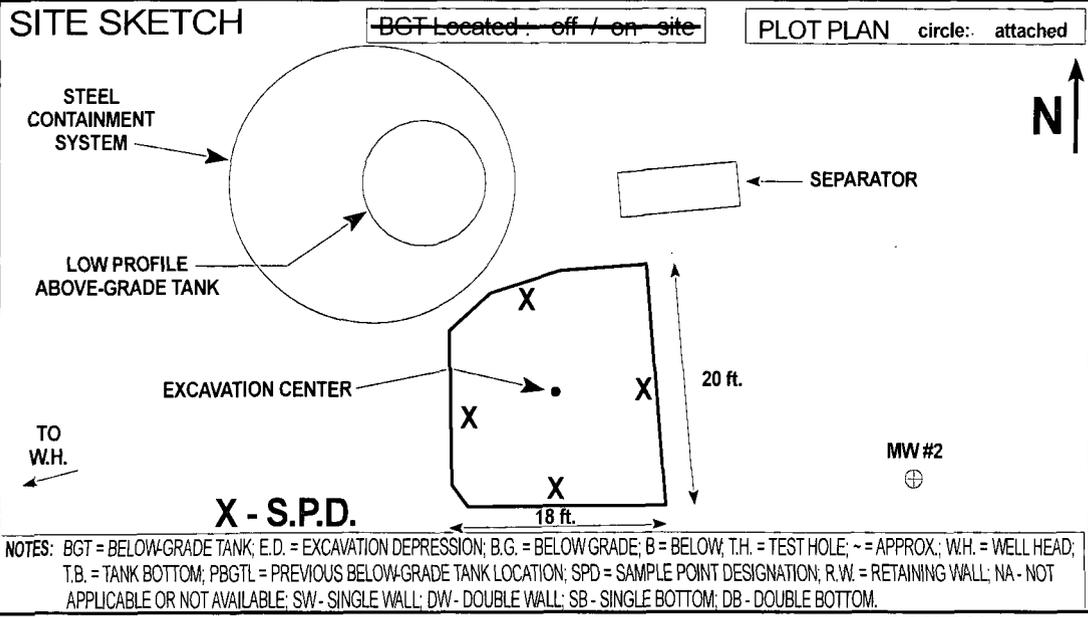
DATE STARTED: **02/06/14**
DATE FINISHED:
ENVIRONMENTAL SPECIALIST(S): **NUJ**

REFERENCE POINT: WELL HEAD (W.H.) GPS COORD.: **36.693345 X 108.056007** GLELEV.: **5,462'**
1) **EXCAVATION CENTER** GPS COORD.: **36.693407 X 108.055640** DISTANCE/BEARING FROM W.H.: **110', N78E**
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: **4PC - SW @ 7'-8'** SAMPLE DATE: **02/06/14** SAMPLE TIME: **1150** LAB ANALYSIS: **8015B/8021B/300.0(CI)** **NA**
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: **DARK YELLOWISH ORANGE** PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
COHESION (ALL OTHERS): **NON COHESIVE** / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
CONSISTENCY (NON COHESIVE SOILS): **LOOSE / FIRM** / DENSE / VERY DENSE HC ODOR DETECTED: **YES** / NO EXPLANATION - **SLIGHTLY WITHIN SAND AND GRAVEL**
MOISTURE: DRY / **SLIGHTLY MOIST** / MOIST / WET / SATURATED / SUPER SATURATED **AT AND BENEATH GROUNDWATER INTERFACE.**
SAMPLE TYPE: GRAB / **COMPOSITE** # OF PTS. **4** ANY AREAS DISPLAYING WETNESS: **YES** / NO EXPLANATION - **GROUNDWATER AT 14 FT.**
DISCOLORATION/STAINING OBSERVED: **YES** / NO EXPLANATION - **AT AND WITHIN GROUNDWATER - MEDIUM TO DARK GRAY.**

SITE OBSERVATIONS: LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION - **NA**
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: **YES** / NO EXPLANATION: **PREVIOUSLY IDENTIFIED IN SEPT. 2013 DURING BGT CLOSURE.**
EQUIPMENT SET OVER RECLAIMED AREA: YES / NO EXPLANATION -
OTHER: **RESIDUAL IMPACTS AT AND WITHIN GROUNDWATER OBSERVED IN SE AND NE PORTIONS OF EXCAVATION. COLLECTED 4 POINT COMPOSITE SAMPLE FROM SIDEWALLS. SAND AND GRAVEL - 14 TO 16 FT. BELOW GRADE.**
SOIL IMPACT DIMENSION ESTIMATION: **18** ft. X **20** ft. X **8** ft. EXCAVATION ESTIMATION (Cubic Yards): **100**
DEPTH TO GROUNDWATER: **<50'** NEAREST WATER SOURCE: **>1,000'** NEAREST SURFACE WATER: **>1,000'** NMOC D TPH CLOSURE STD: **100** ppm



OVM CALIB. READ. = **NA** ppm RF = 0.52
OVM CALIB. GAS = **NA** ppm
TIME **NA** am/pm DATE: **NA**

MISCELL. NOTES
WO: **N15378931**
PO #: **4300253375**
PK:
PJ #:
Permit date(s): **NA**
OCD Appr. date(s): **NA**
Tank ID OVM = Organic Vapor Meter ppm = parts per million
BGT Sidewalls Visible: Y / N
BGT Sidewalls Visible: Y / N
BGT Sidewalls Visible: Y / N
Magnetic declination: **10° E**

BP - GCU COM B # 143E

Unit Ltr. M, Section 25, T29N, R12W, NMPM
API #: 3004524284

Imagery Date: 06/11/2011.

MW #1

Separator Unit

Previous Position of
Below-Grade Tank

CR 5295

Well head

MW #2

MW #3

CR 5297

Google earth

100 ft



BP - GCU COM B # 143E

Unit Ltr. M, Section 25, T29N, R12W, NMPM
API #: 3004524284

Imagery Date: 11/17/2013.

Excavation Center
& MW #4 Location

Current Position of Low
Profile, Above-Grade Tank

Separator Unit

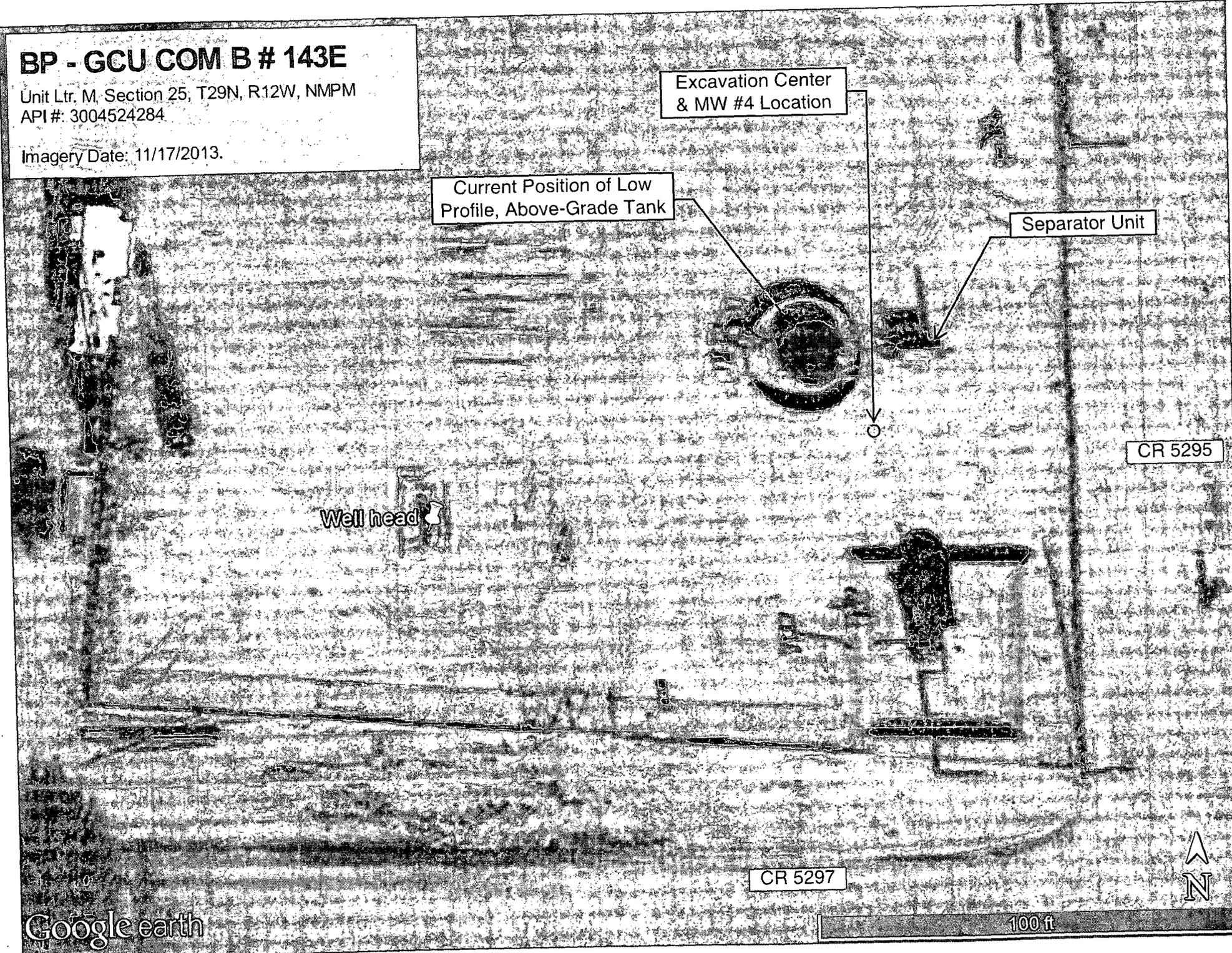
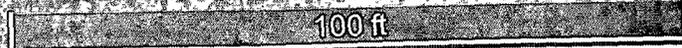
CR 5295

Well head

CR 5297



Google earth



Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5PC-TB @ 5.5' (95)

Project: GCU COM B #143E

Collection Date: 9/9/2013 9:30:00 AM

Lab ID: 1309461-001

Matrix: SOIL

Received Date: 9/11/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2013 7:08:56 PM	9308
Surr: DNOP	78.9	63-147		%REC	1	9/16/2013 7:08:56 PM	9308
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/13/2013 1:43:37 PM	9285
Surr: BFB	92.7	80-120		%REC	1	9/13/2013 1:43:37 PM	9285
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	9/13/2013 1:43:37 PM	9285
Toluene	ND	0.048		mg/Kg	1	9/13/2013 1:43:37 PM	9285
Ethylbenzene	ND	0.048		mg/Kg	1	9/13/2013 1:43:37 PM	9285
Xylenes, Total	ND	0.096		mg/Kg	1	9/13/2013 1:43:37 PM	9285
Surr: 4-Bromofluorobenzene	97.3	80-120		%REC	1	9/13/2013 1:43:37 PM	9285
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	11	1.5		mg/Kg	1	9/16/2013 2:19:55 PM	9328
EPA METHOD 418.1: TPH							Analyst: JME
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	9/16/2013	9309

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

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

Analytical Report

Lab Order 1309461

Date Reported: 9/18/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH1 @ 11'

Project: GCU COM B #143E

Collection Date: 9/9/2013 9:53:00 AM

Lab ID: 1309461-003

Matrix: SOIL

Received Date: 9/11/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	1800	100		mg/Kg	10	9/17/2013 1:13:42 PM	9308
Surr: DNOP	0	63-147	S	%REC	10	9/17/2013 1:13:42 PM	9308
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2100	47		mg/Kg	10	9/13/2013 12:46:18 PM	9285
Surr: BFB	742	80-120	S	%REC	10	9/13/2013 12:46:18 PM	9285
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.67	0.47		mg/Kg	10	9/13/2013 12:46:18 PM	9285
Toluene	29	0.47		mg/Kg	10	9/13/2013 12:46:18 PM	9285
Ethylbenzene	11	0.47		mg/Kg	10	9/13/2013 12:46:18 PM	9285
Xylenes, Total	210	9.5		mg/Kg	100	9/16/2013 3:15:15 PM	9285
Surr: 4-Bromofluorobenzene	155	80-120	S	%REC	10	9/13/2013 12:46:18 PM	9285
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1200	30		mg/Kg	20	9/16/2013 3:21:58 PM	9328

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309461

18-Sep-13

Client: Blagg Engineering
Project: GCU COM B #143E

Sample ID	MB-9328	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	9328	RunNo:	13415					
Prep Date:	9/16/2013	Analysis Date:	9/16/2013	SeqNo:	381618	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-9328	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	9328	RunNo:	13415					
Prep Date:	9/16/2013	Analysis Date:	9/16/2013	SeqNo:	381619	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309461

18-Sep-13

Client: Blagg Engineering

Project: GCU COM B #143E

Sample ID	MB-9309	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	9309	RunNo:	13380					
Prep Date:	9/13/2013	Analysis Date:	9/16/2013	SeqNo:	380738	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-9309	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	9309	RunNo:	13380					
Prep Date:	9/13/2013	Analysis Date:	9/16/2013	SeqNo:	380739	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	84	20	100.0	0	83.5	80	120			

Sample ID	LCSD-9309	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	9309	RunNo:	13380					
Prep Date:	9/13/2013	Analysis Date:	9/16/2013	SeqNo:	380740	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	93	20	100.0	0	93.3	80	120	11.1	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309461

18-Sep-13

Client: Blagg Engineering
Project: GCU COM B #143E

Sample ID	LCS-9308	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9308	RunNo:	13385					
Prep Date:	9/13/2013	Analysis Date:	9/16/2013	SeqNo:	381454	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.8	77.1	128			
Surr: DNOP	4.9		5.000		97.4	63	147			

Sample ID	MB-9308	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9308	RunNo:	13385					
Prep Date:	9/13/2013	Analysis Date:	9/16/2013	SeqNo:	381455	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	7.6		10.00		75.6	63	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309461

18-Sep-13

Client: Blagg Engineering
Project: GCU COM B #143E

Sample ID	MB-9285	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	9285	RunNo:	13373					
Prep Date:	9/12/2013	Analysis Date:	9/13/2013	SeqNo:	380265	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	920		1000		92.4	80	120			

Sample ID	LCS-9285	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	9285	RunNo:	13373					
Prep Date:	9/12/2013	Analysis Date:	9/13/2013	SeqNo:	380266	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.1	74.5	126			
Surr: BFB	1000		1000		104	80	120			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1309461
 18-Sep-13

Client: Blagg Engineering
Project: GCU COM B #143E

Sample ID MB-9285	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 9285		RunNo: 13373							
Prep Date: 9/12/2013	Analysis Date: 9/13/2013		SeqNo: 380319		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-9285	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 9285		RunNo: 13373							
Prep Date: 9/12/2013	Analysis Date: 9/13/2013		SeqNo: 380321		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.4	80	120			
Toluene	0.99	0.050	1.000	0	99.2	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

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

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)

Turn-Around Time:
 Standard Rush

Project Name:
GCU Com B # 143E

Project #:

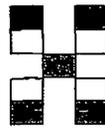
Project Manager:
NELSON VELEZ

Accreditation:
 NELAP Other _____
 EDD (Type) _____

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample temperature: **13**



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	BTEX + MTBE + TMBE (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / THPH)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	5 pt. composite sample
9/9/13	0930	SOIL	SPC-TB @ 5.5' (95)	4 oz. - 2	Cool	1309461 -001	✓	✓	✓									✓		✓
9/9/13	0935	SOIL	TH1 @ 5.5'	4 oz. - 1	Cool	-002	✓	✓										✓		✓
9/9/13	0953	SOIL	TH1 @ 11'	4 oz. - 1	Cool	-003	✓	✓										✓		✓

Date: **9/10/13** Time: **1217** Relinquished by: *[Signature]*

Date: _____ Time: _____ Relinquished by: _____

Received by: *[Signature]* Date: **9/10/13** Time: **1217**

Received by: *[Signature]* Date: **09/11/13** Time: **0950**

Remarks:
BILL DIRECTLY TO BP:
 Jeff Peace, 200 Energy Court, Farmington, NM 87401
 Work Order: N15210983 Paykey: ZEVH01BGT2

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.

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1309461**

RcptNo: **1**

Received by/date: AG 09/11/13

Logged By: **Anne Thorne** 9/11/2013 9:50:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 9/12/2013 *Anne Thorne*

Reviewed By: *[Signature]* 09/12/13

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0° C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 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? Yes No
(If no, notify customer for authorization.)

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

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

Analytical Report

Lab Order 1402373

Date Reported: 2/18/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 4PC-SW @ 7'-8'

Project: GCU Com B # 143E

Collection Date: 2/6/2014 11:50:00 AM

Lab ID: 1402373-001

Matrix: SOIL

Received Date: 2/11/2014 10:04:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	32	10		mg/Kg	1	2/13/2014 11:20:52 AM	11680
Surr: DNOP	97.6	66-131		%REC	1	2/13/2014 11:20:52 AM	11680
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2014 10:27:40 PM	11678
Surr: BFB	82.1	74.5-129		%REC	1	2/12/2014 10:27:40 PM	11678
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	2/12/2014 10:27:40 PM	11678
Toluene	ND	0.049		mg/Kg	1	2/12/2014 10:27:40 PM	11678
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2014 10:27:40 PM	11678
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2014 10:27:40 PM	11678
Surr: 4-Bromofluorobenzene	89.4	80-120		%REC	1	2/12/2014 10:27:40 PM	11678
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	2/13/2014 1:26:17 PM	11710

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402373

18-Feb-14

Client: Blagg Engineering

Project: GCU Com B # 143E

Sample ID	MB-11710	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	11710	RunNo:	16753					
Prep Date:	2/13/2014	Analysis Date:	2/13/2014	SeqNo:	482183	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-11710	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	11710	RunNo:	16753					
Prep Date:	2/13/2014	Analysis Date:	2/13/2014	SeqNo:	482184	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402373

18-Feb-14

Client: Blagg Engineering
Project: GCU Com B # 143E

Sample ID	LCS-11680	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11680	RunNo:	16685					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	480529	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.1	60.8	145			
Surr: DNOP	4.1		5.000		81.6	66	131			

Sample ID	MB-11680	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11680	RunNo:	16685					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	480530	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	7.1		10.00		71.1	66	131			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402373

18-Feb-14

Client: Blagg Engineering
Project: GCU Com B # 143E

Sample ID	MB-11678	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	11678	RunNo:	16720					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	481146	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	820		1000		82.2	74.5	129			

Sample ID	LCS-11678	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	11678	RunNo:	16720					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	481147	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	106	71.7	134			
Surr: BFB	880		1000		88.4	74.5	129			

Sample ID	MB-11696 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R16746	RunNo:	16746					
Prep Date:	2/12/2014	Analysis Date:	2/13/2014	SeqNo:	482053	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	800		1000		79.8	74.5	129			

Sample ID	LCS-11696 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R16746	RunNo:	16746					
Prep Date:	2/12/2014	Analysis Date:	2/13/2014	SeqNo:	482054	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.5	74.5	129			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1402373
 18-Feb-14

Client: Blagg Engineering
 Project: GCU Com B # 143E

Sample ID	MB-11678	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11678	RunNo:	16720					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	481173	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	80	120			

Sample ID	LCS-11678	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11678	RunNo:	16720					
Prep Date:	2/11/2014	Analysis Date:	2/12/2014	SeqNo:	481174	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	119	80	120			
Toluene	1.2	0.050	1.000	0	120	80	120			
Ethylbenzene	1.2	0.050	1.000	0	119	80	120			
Xylenes, Total	3.5	0.10	3.000	0	118	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			

Sample ID	MB-11696 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R16746	RunNo:	16746					
Prep Date:		Analysis Date:	2/13/2014	SeqNo:	482085	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.86		1.000		86.0	80	120			

Sample ID	LCS-11696 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R16746	RunNo:	16746					
Prep Date:		Analysis Date:	2/13/2014	SeqNo:	482086	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1402373**

RcptNo: **1**

Received by/date: AG 02/11/14

Logged By: **Michelle Garcia** 2/11/2014 10:04:00 AM *Michelle Garcia*

Completed By: **Michelle Garcia** 2/11/2014 11:50:37 AM *Michelle Garcia*

Reviewed By: *[Signature]* 02/11/14

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? 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? Yes No

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

Special Handling (if applicable)

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

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

17. Additional remarks:

Cooler Information

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW #4

Project: GCU Com B #143E

Collection Date: 2/18/2014 2:00:00 PM

Lab ID: 1402755-001

Matrix: AQUEOUS

Received Date: 2/19/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	2/21/2014 11:30:09 AM	R16894
Toluene	2.6	1.0		µg/L	1	2/21/2014 11:30:09 AM	R16894
Ethylbenzene	2.6	1.0		µg/L	1	2/21/2014 11:30:09 AM	R16894
Xylenes, Total	37	2.0		µg/L	1	2/21/2014 11:30:09 AM	R16894
Surr: 4-Bromofluorobenzene	110	85-136		%REC	1	2/21/2014 11:30:09 AM	R16894
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.87	0.10		mg/L	1	2/20/2014 1:54:42 PM	R16880
Chloride	7.1	0.50		mg/L	1	2/20/2014 1:54:42 PM	R16880
Nitrogen, Nitrate (As N)	1.0	0.10		mg/L	1	2/20/2014 1:54:42 PM	R16880
Sulfate	240	10		mg/L	20	2/20/2014 2:07:06 PM	R16880
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Iron	0.025	0.020		mg/L	1	2/21/2014 1:16:51 PM	R16879
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	772	40.0	*	mg/L	1	2/25/2014 5:13:00 PM	11864

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755

27-Feb-14

Client: Blagg Engineering

Project: GCU Com B #143E

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R16879	RunNo:	16879					
Prep Date:	2/5/2014	Analysis Date:	2/21/2014	SeqNo:	486096	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:	R16879	RunNo:	16879					
Prep Date:		Analysis Date:	2/21/2014	SeqNo:	486097	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0	94.5	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755

27-Feb-14

Client: Blagg Engineering
Project: GCU Com B #143E

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R16880	RunNo:	16880					
Prep Date:		Analysis Date:	2/20/2014	SeqNo:	486110	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R16880	RunNo:	16880					
Prep Date:		Analysis Date:	2/20/2014	SeqNo:	486111	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	5.0	0.50	5.000	0	99.6	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Sample ID	A4	SampType:	CCV_4	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R16880	RunNo:	16880					
Prep Date:		Analysis Date:	2/20/2014	SeqNo:	486120	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	1.000	0	93.7	90	110			
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	95.7	90	110			
Sulfate	12	0.50	12.50	0	93.0	90	110			

Sample ID	A5	SampType:	CCV_5	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R16880	RunNo:	16880					
Prep Date:		Analysis Date:	2/20/2014	SeqNo:	486132	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	96.4	90	110			
Chloride	7.7	0.50	8.000	0	96.4	90	110			
Nitrogen, Nitrate (As N)	4.8	0.10	4.800	0	99.9	90	110			
Sulfate	19	0.50	20.00	0	96.8	90	110			

Sample ID	A6	SampType:	CCV_6	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R16880	RunNo:	16880					
Prep Date:		Analysis Date:	2/20/2014	SeqNo:	486144	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755

27-Feb-14

Client: Blagg Engineering
Project: GCU Com B #143E

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R16880		RunNo: 16880							
Prep Date:	Analysis Date: 2/20/2014		SeqNo: 486144		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	2.400	0	98.2	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Nitrogen, Nitrate (As N)	7.6	0.10	7.200	0	106	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R16880		RunNo: 16880							
Prep Date:	Analysis Date: 2/20/2014		SeqNo: 486156		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.96	0.10	1.000	0	95.9	90	110			
Chloride	4.7	0.50	5.000	0	94.1	90	110			
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	96.1	90	110			
Sulfate	12	0.50	12.50	0	93.4	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R16880		RunNo: 16880							
Prep Date:	Analysis Date: 2/20/2014		SeqNo: 486168		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	96.6	90	110			
Chloride	7.8	0.50	8.000	0	96.9	90	110			
Nitrogen, Nitrate (As N)	4.8	0.10	4.800	0	100	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R16880		RunNo: 16880							
Prep Date:	Analysis Date: 2/20/2014		SeqNo: 486170		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R16880		RunNo: 16880							
Prep Date:	Analysis Date: 2/20/2014		SeqNo: 486180		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	2.400	0	97.6	90	110			
Chloride	12	0.50	12.00	0	101	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755

27-Feb-14

Client: Blagg Engineering
Project: GCU Com B #143E

Sample ID A6	SampType: CCV_6	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R16880	RunNo: 16880								
Prep Date:	Analysis Date: 2/20/2014	SeqNo: 486180 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	7.5	0.10	7.200	0	105	90	110			

Sample ID A4	SampType: CCV_4	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R16880	RunNo: 16880								
Prep Date:	Analysis Date: 2/21/2014	SeqNo: 486192 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	1.000	0	94.3	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	95.7	90	110			

Sample ID A5	SampType: CCV_5	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R16880	RunNo: 16880								
Prep Date:	Analysis Date: 2/21/2014	SeqNo: 486204 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	95.1	90	110			
Chloride	7.7	0.50	8.000	0	96.7	90	110			
Nitrogen, Nitrate (As N)	4.8	0.10	4.800	0	100	90	110			

Sample ID A6	SampType: CCV_6	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R16880	RunNo: 16880								
Prep Date:	Analysis Date: 2/21/2014	SeqNo: 486214 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	2.400	0	96.4	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Nitrogen, Nitrate (As N)	7.5	0.10	7.200	0	104	90	110			

Sample ID A4	SampType: CCV_4	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R16880	RunNo: 16880								
Prep Date:	Analysis Date: 2/21/2014	SeqNo: 486220 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	1.000	0	93.8	90	110			
Chloride	4.7	0.50	5.000	0	93.6	90	110			
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	96.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755
27-Feb-14

Client: Blagg Engineering
Project: GCU Com B #143E

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW		Batch ID:	R16894		RunNo:	16894				
Prep Date:			Analysis Date:	2/21/2014		SeqNo:	486551		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	2.0									
Surr: 4-Bromofluorobenzene	21		20.00		103	85	136				

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSW		Batch ID:	R16894		RunNo:	16894				
Prep Date:			Analysis Date:	2/21/2014		SeqNo:	486552		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	0	97.4	80	120				
Toluene	20	1.0	20.00	0	98.5	80	120				
Ethylbenzene	20	1.0	20.00	0	98.2	80	120				
Xylenes, Total	60	2.0	60.00	0	100	80	120				
Surr: 4-Bromofluorobenzene	22		20.00		111	85	136				

Sample ID	MB-11838		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW		Batch ID:	R16894		RunNo:	16894				
Prep Date:			Analysis Date:	2/21/2014		SeqNo:	486561		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	2.0									
Surr: 4-Bromofluorobenzene	22		20.00		109	85	136				

Sample ID	LCS-11838		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSW		Batch ID:	R16894		RunNo:	16894				
Prep Date:			Analysis Date:	2/21/2014		SeqNo:	486562		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	0	97.1	80	120				
Toluene	20	1.0	20.00	0	97.6	80	120				
Ethylbenzene	20	1.0	20.00	0	98.8	80	120				
Xylenes, Total	60	2.0	60.00	0	100	80	120				
Surr: 4-Bromofluorobenzene	22		20.00		109	85	136				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402755

27-Feb-14

Client: Blagg Engineering

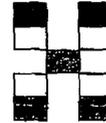
Project: GCU Com B #143E

Sample ID	MB-11864	SampType	MBLK	TestCode	SM2540C MOD: Total Dissolved Solids					
Client ID	PBW	Batch ID	11864	RunNo	16946					
Prep Date	2/24/2014	Analysis Date	2/25/2014	SeqNo	487787	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-11864	SampType	LCS	TestCode	SM2540C MOD: Total Dissolved Solids					
Client ID	LCSW	Batch ID	11864	RunNo	16946					
Prep Date	2/24/2014	Analysis Date	2/25/2014	SeqNo	487788	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

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



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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

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

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

email or Fax#:

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

Accreditation:
 NELAP Other _____
 EDD (Type) _____

Standard Rush

Project Name:
GCU Com B # 143E

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On site: Yes No

Sample Temperature: 10

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	Total Dissolved Solids	Iron, Ferrrous (filtered)	Nitrate N / Nitrite N	Grab sample	5 pt. composite sample	
2/18/14	1400	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	001	✓												✓	
2/18/14	1400	WATER	MW # 4	500 ml - 1	Cool	001								✓	✓				✓	
2/18/14	1400	WATER	MW # 4	125 ml - 1	HNO ₃ & Cool	001										✓			✓	
2/18/14	1400	WATER	MW # 4	125 ml - 1	H ₂ SO ₄	001											✓		✓	

Date: 2/18/14 **Time:** 1522 **Relinquished by:** [Signature]

Date: 2/19/14 **Time:** 600 **Relinquished by:** [Signature]

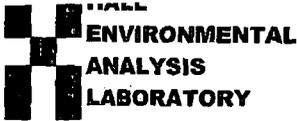
Received by: [Signature] **Date:** 2/18/14 **Time:** 1522

Received by: [Signature] **Date:** 02/19/14 **Time:** 1000

Remarks:

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

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



Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1402755

RcptNo: 1

Received by/date:	<i>MG</i>	<i>02/19/14</i>	
Logged By:	Michelle Garcia	2/19/2014 10:00:00 AM	<i>Michelle Garcia</i>
Completed By:	Michelle Garcia	2/20/2014 9:55:10 AM	<i>Michelle Garcia</i>
Reviewed By:	<i>IO</i>	<i>02/20/14</i>	

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? 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? Yes No

of preserved bottles checked for pH: 02
 (< 2 or > 12 unless noted)

Adjusted? _____

Checked by: *MG*

Special Handling (if applicable)

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

18. Cooler Information

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

BLAGG ENGINEERING, Inc.

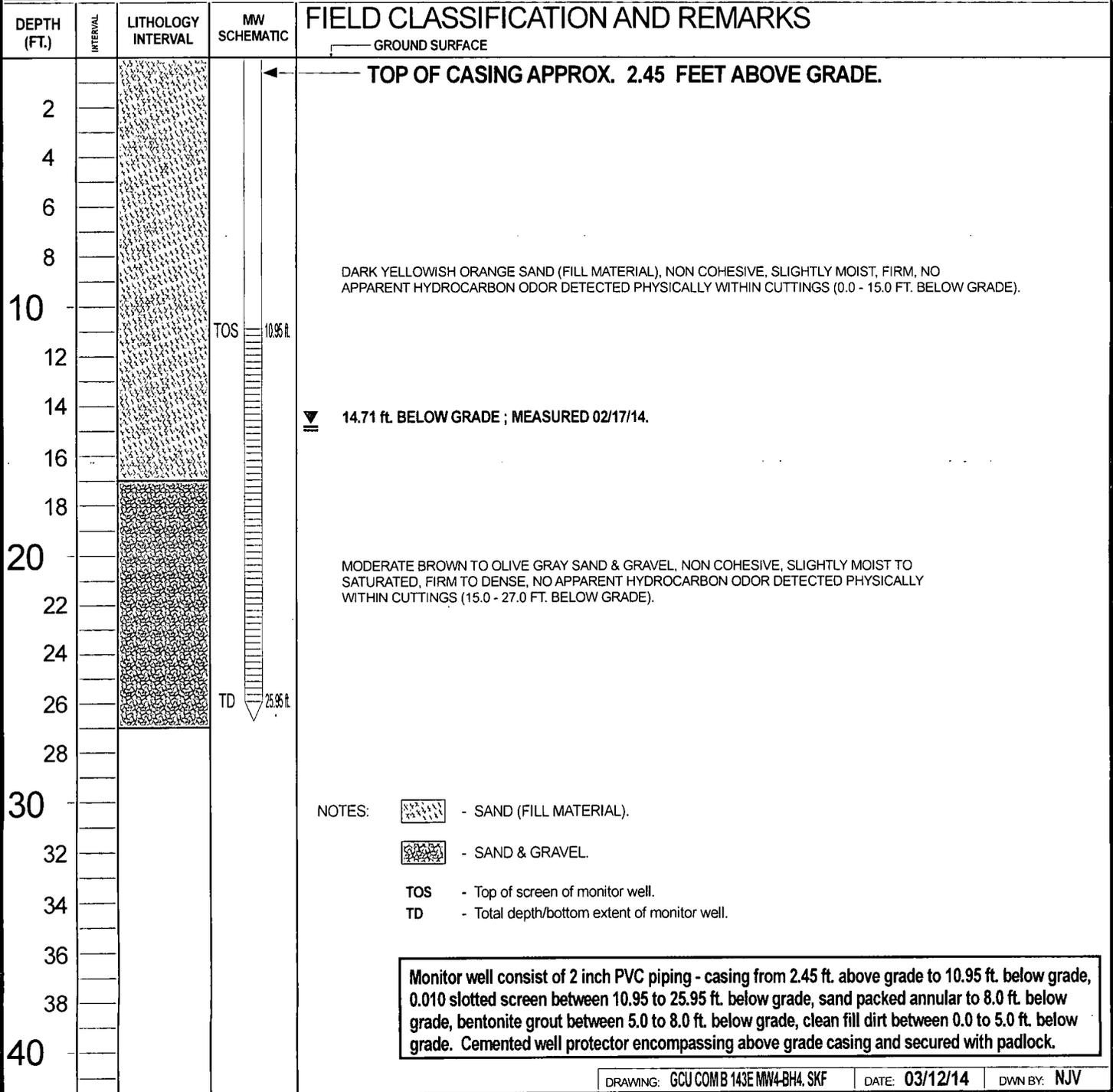
P.O. BOX 87
 BLOOMFIELD, NM 87413
 (505) 632-1199

MW #4

BORE / TEST HOLE REPORT

BORING #..... BH-4
 MW#..... 4
 PAGE #..... 1
 DATE STARTED 02/12/14
 DATE FINISHED 02/12/14
 OPERATOR..... KP
 PREPARED BY NJV

CLIENT: BP AMERICA PRODUCTION CO.
 LOCATION NAME: GCU COM B # 143E UNIT M, SEC. 25, T29N, R12W
 CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
 EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
 BORING LOCATION: 110 FEET, N78E FROM WELL HEAD.



BLAGG ENGINEERING, INC.

MONITOR / TEST WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GCU Com B # 143E UNIT M, SEC. 25, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : February 18, 2014

DEVELOPER / SAMPLER : N J V

Filename : GCU Com B 143E mw log 02-18-14.xls

PROJECT MANAGER : N J V

Sample ID	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW #4	-	-	17.17	25.95	1400	7.20	800	15.3	4.25

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	02/18/14	0600

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.
 (i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

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".

Installed on 2/13/2014. Developed/purged 20 gallons continuously on 2/17/2014 (murky brown in appearance).

Purged well using 2 inch submersible electric pump , new / clear vinyl tubing and with brass adjustable flow valve

attachment added near sampling end of tubing . Collected samples for BTEX per US EPA Method 8021B &

general chemistry parameters.

Top of casing: MW #4 ~ 2.45 ft. above grade.

on-site	<u>1:15 PM</u>	temp.	<u>61 F</u>
off-site	<u>2:15 PM</u>	temp.	<u>61 F</u>
sky cond.	<u>Sunny</u>		
wind speed	<u>5 - 15</u>	direct.	<u>W</u>