

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

30045-09376

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: Florance O-20	Facility Type: Natural gas well
Surface Owner: Federal	Mineral Owner: Federal
API No. 300409376	

LOCATION OF RELEASE

Unit Letter B	Section 24	Township 30N	Range 9W	Feet from the 990	North/South Line North	Feet from the 1,650	East/West Line East	County: San Juan
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Latitude 36.8012 Longitude 107.72802

NATURE OF RELEASE

Type of Release: condensate	Volume of Release: 85 bbl of produced water and condensate	Volume Recovered: 53 bbl condensate
Source of Release: ball valve on drain line from condensate tank	Date and Hour of Occurrence: 10/2/2013; 4:00 PM	Date and Hour of Discovery: 10/2/2013; 4:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell	
By Whom? Courtney Cochran	Date and Hour: 10/3/2013; 8:00 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.*

JUN 10 2014

Describe Cause of Problem and Remedial Action Taken.* SSS truck driver was on location to pull water from the condensate tank to ready condensate for sale. During the removal of the bull plug from the drain valve, the driver did not realize the ball valve was coming apart, which allowed the contents of the condensate tank to empty into the bermed containment area. The truck driver was able to recover 53 bbl of condensate. Impacted soil was excavated.

Describe Area Affected and Cleanup Action Taken.* Impacted soil was excavated and removed to the sandstone bedrock surface. Approximately 184 cubic yards of impacted soil was taken to IEI landfarm for treatment. Exposed sandstone bedrock surface area was treated with hydrogen peroxide, then backfilled with clean fill material. Subsequent soil analyses showed TPH below 100 ppm.

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>Janet D. Kelly</i>	
Title: Area Environmental Advisor	Approval Date: <i>9/8/2014</i>	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: June 6, 2014	Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

NJR 1425152668

BP AMERICA PRODUCTION COMPANY

FLORANCE O #20 – PRODUCTION TANK RELEASE

API #: 3004509376

Legal Description: (Unit Letter B, Sec. 24, T30N, R9W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. October 2, 2013 (Wednesday): Approximately 85 barrels (bbl) of fluid (produced water and/or condensate) were release from a 100 bbl production tank. Approximately 53 bbls of condensate was recovered within the steel containment ring surrounding the tank.
2. October 4, 2013 (Friday): Blagg Engineering, Inc. (BEI) was contacted and informed of the release.
3. October 7, 2013 (Monday): BEI arrived on site to collect limited sampling and field measurements. Surface stained area within the steel containment ring displayed a relatively small areal extent (15 ft. diameter). The earthen material beneath the containment ring appeared to have been breached in 2 separate points; 1) west-northwest of the production tank and 2) near the northern quadrant (see Figure 1 & 3). A total of 3 samples were submitted to Hall Environmental Laboratory for testing.
4. November 21, 2013 (Thursday): BEI conducted technical support in the initial cleanup via excavation of the impacted soils within the containment ring.
5. November 22, 2013 (Friday): Snow accumulated overnight and in the morning hours causing unsafe surface conditions to proceed with the cleanup effort. The following work week continued to possess poor surface conditions created by the inclement weather. Due to this, the cleanup effort was postponed until after the Thanksgiving holiday.
6. December 2, 2013 (Monday): BEI conducted technical support in the continuation of the cleanup effort both on & off site.
7. December 5, 2013 (Thursday): BEI confirms through Industrial Ecosystem Inc. (IEI) that 184 cubic yards of soil was transported to BP's Crouch Mesa Facility from the site cleanup activity.
8. December 12, 2013 (Thursday): BEI & BP received final lab reports for samples collected on 12/02/2013.
9. March 6, 2014 (Thursday): BEI applies 5 gallons each to Trench 2 and Trench 3 surface areas.
10. April 24, 2014 (Thursday): BEI collects composite samples from Trench 2 and Trench 3 surface areas.
11. May 9, 2014 (Friday): BEI and BP receive final lab reports for samples collected 4/24/2014.

Figure 1

BP - Florance O #20

Unit Ltr. B, Section 24, T30N, R9W, NMPM
API #: 3004509376

Imagery Date: 05/02/2013.

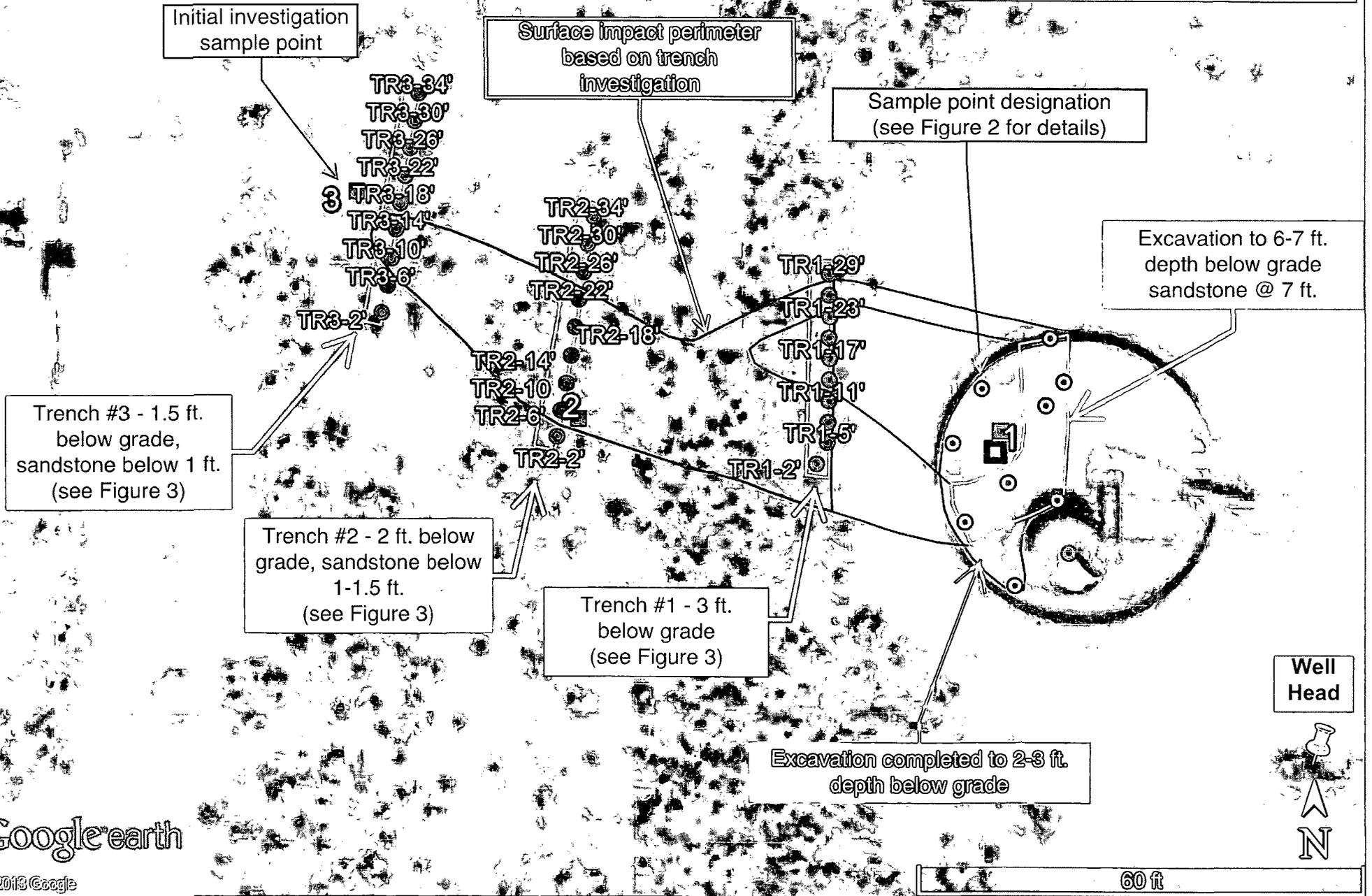


Figure 2

BP - Florance O #20

Unit Ltr. B, Section 24, T30N, R9W, NMPM
API #: 3004509376

Imagery Date: 05/02/2013.

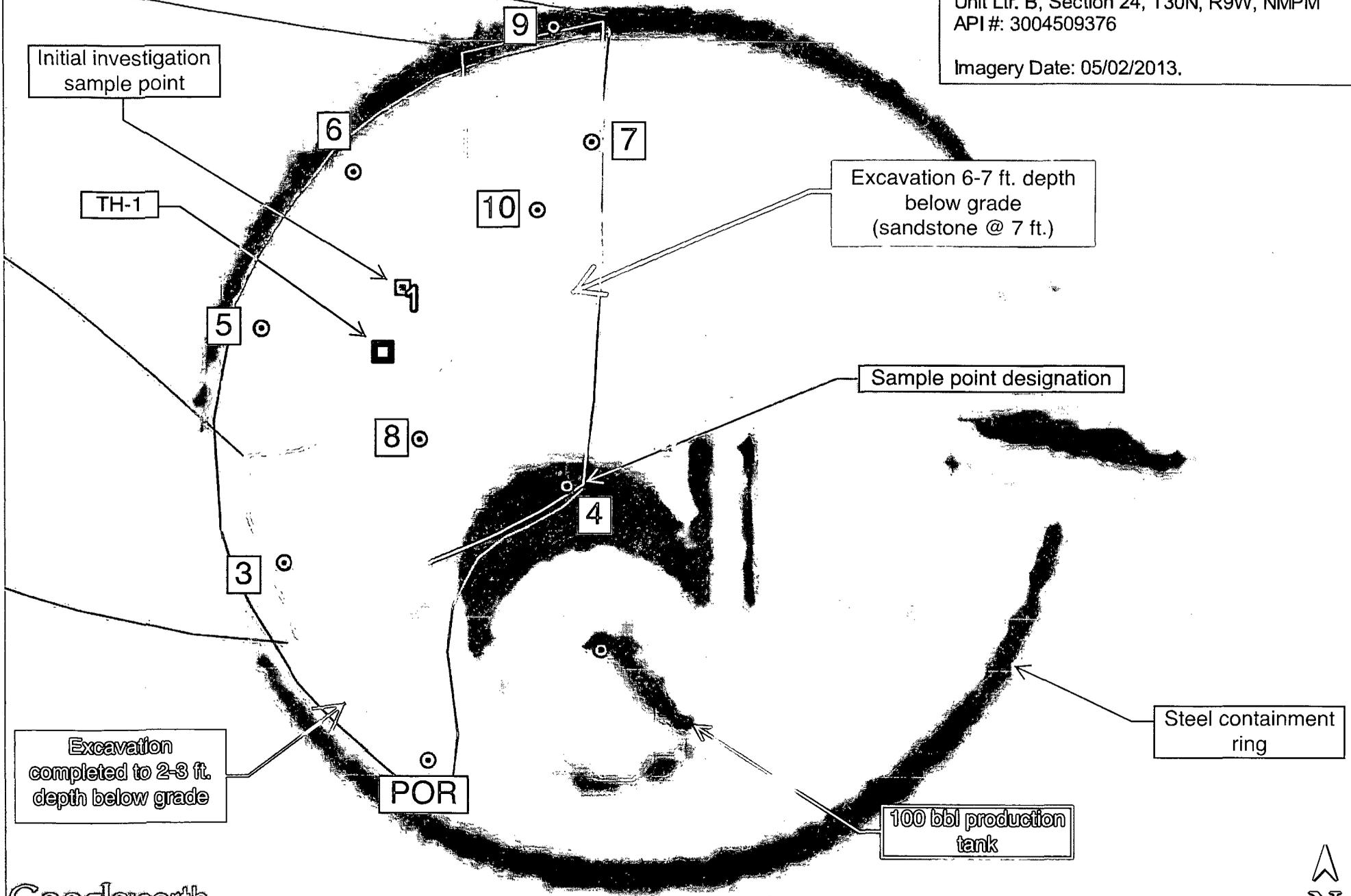


Figure 3

BP - Florance O #20

Unit Ltr. B, Section 24, T30N, R9W, NMPM
API #: 3004509376

Imagery Date: 05/02/2013.

Areas of surface
H2O2 treatment on
3/6/2014 and re-
sampling on
4/24/2014

Surface impact perimeter
based on trench
investigation - excavated
between 1.5-3 ft. below grade

Initial
investigation
sample point

Initial
investigation
sample point

Trench #3

Trench #2

Trench #1

3

2

TR3-34'

TR3-30'

TR3-26'

TR3-22'

TR3-18'

TR3-14'

TR3-10'

TR3-6'

TR3-2'

TR2-34'

TR2-30'

TR2-26'

TR2-22'

TR2-18'

TR2-14'

TR2-10'

TR2-6'

TR2-2'

TR1-29'

TR1-26'

TR1-23'

TR1-20'

TR1-17'

TR1-14'

TR1-11'

TR1-8'

TR1-5'

TR1-2'



BP AMERICA PRODUCTION COMPANY

Florance O # 20 - (Production Tank Release)

Unit Letter B, Section 24, T30N, R9W - API Number: 30-045-09376

SAMPLE ID & MAP NUMBER OR LETTER DESIGNATION	SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
1 @ 12"	1	10/07/13	1426	GRAB	62	ND	0.41	DYB silty sand, cohesive, firm, moist, slight hydrocarbon (HC) odor detected
2 @ 12"	2	10/07/13	1437	GRAB	201	6,180	5.3	DYO sand phasing to sandstone, non cohesive, loose to dense, strong HC odor detected
3 @ 11"	3	10/07/13	1443	GRAB	74	6.8	1.68	DYO sand, non cohesive, loose to firm, slight HC odor detected
TH - 1 @ 2.5'		11/21/13	1137	GRAB	13.2	ND	ND	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
EB - POR @ 3'		11/21/13	1158	GRAB	48.2	ND	ND	PYO sand, non cohesive, firm, slightly moist, slight HC odor detected
EB - 3 @ 3.5'	3	11/21/13	1201	GRAB	191	NA	NA	PYO sand, non cohesive, firm, slightly moist, apparent HC odor detected
EB - 4 @ 2'	4	11/21/13	1225	GRAB	282	NA	NA	DYB silty sand, cohesive, firm, moist, strong HC odor detected
EB - 5 @ 3'	5	11/21/13	1236	GRAB	86	ND	ND	2 pt. composite lab sample, DYO sand to silty sand, non cohesive, firm, slightly moist, slight HC odor detected
EB - 6 @ 3'	6	11/21/13	1248	GRAB	95.1			
EB - 7 @ 3'	7	11/21/13	1251	GRAB	288	NA	NA	DYB silty sand, cohesive, firm, moist, strong HC odor detected
EB - 8 @ 3.5'	8	11/21/13	1436	GRAB	190.6	NA	NA	PYO sand, non cohesive, firm, slightly moist, apparent HC odor detected
EB - 3 @ 5'	3	11/21/13	1445	GRAB	24.6	ND	ND	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
EB - 8 @ 5'	8	11/21/13	1500	GRAB	29.2	11	ND	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
EB - 4 @ 4'	4	11/21/13	1505	GRAB	141	NA	NA	PYO sand, non cohesive, firm, slightly moist, apparent HC odor detected
EB - 7 @ 5'	7	11/21/13	1513	GRAB	225	NA	NA	PYO sand, non cohesive, firm, slightly moist, strong HC odor detected
EB - 7 @ 6'	7	11/21/13	1527	GRAB	63.4	17	ND	2 pt. composite lab sample, DYO sand to silty sand, non cohesive, firm, slightly moist, no apparent HC odor detected
EB - 4 @ 6'	4	11/21/13	1531	GRAB	25.5			
EB - 10 @ 7'	10	12/02/13	0945	GRAB	2.6	NA	NA	PYO sandstone, course grained, competent, dry, no apparent HC odor detected
SW - 9 @ 5.5'	9	12/02/13	0950	GRAB	43.0	NA	NA	DYB silty sand to silt, cohesive, firm, dry to slightly moist, no apparent HC odor detected
EB - 3 @ 7'	3	12/02/13	1144	GRAB	0.0	NA	NA	PYO sandstone, course grained, competent, dry, no apparent HC odor detected
TR1 - 2' @ 3'		12/02/13	1023	GRAB	175	NA	NA	PYO sand, non cohesive, firm, slightly moist, apparent HC odor detected
TR1 - 5' @ 1'		12/02/13	1029	GRAB	321	NA	NA	PYO sand, non cohesive, firm, slightly moist, strong HC odor detected
TR1 - 8' @ 1'		12/02/13	1031	GRAB	477	NA	NA	PYO sand, non cohesive, firm, slightly moist, HC odor detected
TR1 - 11' @ 1'		12/02/13	1032	GRAB	122	NA	NA	PYO sand, non cohesive, firm, slightly moist, HC odor detected
TR1 - 14' @ 1'		12/02/13	1033	GRAB	30.2	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR1 - 17' @ 1'		12/02/13	1035	GRAB	12.0	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR1 - 20' @ 1'		12/02/13	1037	GRAB	2.4	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR1 - 23' @ 1'		12/02/13	1039	GRAB	4.0	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR1 - 26' @ 1'		12/02/13	1041	GRAB	463	NA	NA	PYO sand, non cohesive, firm, slightly moist, strong HC odor detected
TR1 - 29' @ 1'		12/02/13	1043	GRAB	53.3	NA	NA	PYO sand, non cohesive, firm, slightly moist, slight apparent HC odor detected
TR2 - 2' @ 1'		12/02/13	1208	GRAB	3.3	pending	pending	5 pt. composite lab sample, PYO sand, non cohesive, slightly moist, strong HC odor detected except in TR2 - 14' @ 1' (no apparent)
TR2 - 6' @ 1'		12/02/13	1209	GRAB	250	pending	pending	
TR2 - 10' @ 1'		12/02/13	1210	GRAB	418			
TR2 - 14' @ 1'		12/02/13	1211	GRAB	22.0			
TR2 - 18' @ 1'		12/02/13	1212	GRAB	358			
TR2 - 22' @ 1'		12/02/13	1213	GRAB	260			
TR2 - 26' @ 1'		12/02/13	1214	GRAB	23.6	pending	pending	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR2 - 30' @ 1'		12/02/13	1215	GRAB	45.3	NA	NA	PYO sand, non cohesive, firm, slightly moist, slight HC odor detected
TR2 - 34' @ 1'		12/02/13	1216	GRAB	30.1	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected

NMOC RELEASE CLOSURE STANDARDS (soils) -	100	100	10	50
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BP AMERICA PRODUCTION COMPANY

Florance O # 20 - (Production Tank Release)

Unit Letter B, Section 24, T30N, R9W - API Number: 30-045-09376

SAMPLE ID & MAP NUMBER OR LETTER DESIGNATION	SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
TR3 - 2' @ 1'	12/02/13	1252	GRAB	8.3	NA	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR3 - 6' @ 1'	12/02/13	1253	GRAB	29.1	pending	pending	pending	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR3 - 10' @ 1'	12/02/13	1254	GRAB	352	pending	pending	pending	2 pt. composite lab sample, PYO sand, non cohesive, slightly moist, strong HC odor detected
TR3 - 14' @ 1'	12/02/13	1256	GRAB	243				
TR3 - 18' @ 1'	12/02/13	1257	GRAB	45.3	pending	pending	pending	PYO sand, non cohesive, firm, slightly moist, slight HC odor detected
TR3 - 22' @ 1'	12/02/13	1258	GRAB	20.3	NA	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR3 - 26' @ 1'	12/02/13	1259	GRAB	11.8	NA	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR3 - 30' @ 1'	12/02/13	1300	GRAB	3.7	NA	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected
TR3 - 34' @ 1'	12/02/13	1301	GRAB	2.9	NA	NA	NA	PYO sand, non cohesive, firm, slightly moist, no apparent HC odor detected

NMOCD RELEASE CLOSURE STANDARDS (soils) -	100	100	10	50
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Notes:

OVM - <u>Organic vapor meter or photo-ionization detector (PID)</u>	ppm - <u>Parts per million or milligram per kilogram (mg/Kg).</u>
TPH - <u>Total petroleum hydrocarbons by US EPA Method 8015B.</u>	ND - <u>Not detected at Reporting Limit.</u>
BTEX - <u>Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B</u>	NMOCD - <u>New Mexico Oil Conservation Division.</u>
DYO - <u>Dark yellowish orange</u>	DYB - <u>Dark yellowish brown</u>

NMOCD RELEASE CLOSURE STANDARDS REFERENCE: "Guidelines for Remediation of Leaks, Spills and Releases" dated: August 13, 1993

OVM CALIBRATION: RESPONSE FACTOR = 0.52 or 1.00, CALIBRATION GAS - 100 ppm ISOBUTYLENE.

OVM CALIBRATION DATA

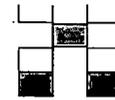
DATE	TIME	READING
10/07/13	1131	52.3
11/21/13	1140	53.3

DATE	TIME	READING
12/02/13	1051	52.7

Trench 2: 5-point composite at 24" depth (on sandstone surface) on 4/24/2014: TPH = 82 ppm

Trench 3: 2-point composite at 18" depth (on sandstone surface) on 4/24/2014: TPH = 30 ppm

Chain-of-Custody Record



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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

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: **5 DAY COMPLETE BY 12/11/2013**

Standard Rush

Project Name: **FLORANCE O # 20**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample Temperature:

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + THPs (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / THPs)	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	2 pt. composite sample	5 pt. composite sample	Air Bubbles (Y or N)
12/2/13	0950	SOIL	SW - 9 @ 5.5'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	0945	SOIL	EB - 10 @ 7'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1144	SOIL	EB - 3 @ 7'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1208	SOIL	TR2 - 2' @ 1'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1214	SOIL	TR2 - 26' @ 1'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1213	SOIL	TR2 - (6'-22') @ 1'	4 oz. - 1	Cool		✓		✓									✓			✓	
12/2/13	1253	SOIL	TR3 - 6' @ 1'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1257	SOIL	TR3 - 18' @ 1'	4 oz. - 1	Cool		✓		✓									✓	✓			
12/2/13	1256	SOIL	TR3 - (10'-14') @ 1'	4 oz. - 1	Cool		✓		✓									✓		✓		

Date: **12/4/13** Time: Relinquished by: *Nelson Velez* Received by: Date Time Remarks:
Send invoice to:
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

Date: Time: Relinquished by: Received by: Date Time

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.

Analytical Report

Lab Order 1310451

Date Reported: 10/16/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: #1 @ 12"

Project: Florance "O" 20

Collection Date: 10/7/2013 2:26:00 PM

Lab ID: 1310451-001

Matrix: SOIL

Received Date: 10/9/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 5:02:57 PM	9754
Surr: DNOP	103	63-147		%REC	1	10/11/2013 5:02:57 PM	9754
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2013 11:01:43 PM	9739
Surr: BFB	103	80-120		%REC	1	10/10/2013 11:01:43 PM	9739
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	10/10/2013 11:01:43 PM	9739
Toluene	0.055	0.049		mg/Kg	1	10/10/2013 11:01:43 PM	9739
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2013 11:01:43 PM	9739
Xylenes, Total	0.35	0.098		mg/Kg	1	10/10/2013 11:01:43 PM	9739
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	10/10/2013 11:01:43 PM	9739
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	4.4	1.5		mg/Kg	1	10/10/2013 7:26:47 PM	9767

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** #2 @ 12"
Project: Florance "O" 20 **Collection Date:** 10/7/2013 2:37:00 PM
Lab ID: 1310451-002 **Matrix:** SOIL **Received Date:** 10/9/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	780	9.9		mg/Kg	1	10/11/2013 5:34:08 PM	9754
Surr: DNOP	107	63-147		%REC	1	10/11/2013 5:34:08 PM	9754
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5400	240		mg/Kg	50	10/10/2013 1:28:06 PM	9739
Surr: BFB	390	80-120	S	%REC	50	10/10/2013 1:28:06 PM	9739
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	5.3	2.4		mg/Kg	50	10/10/2013 1:28:06 PM	9739
Toluene	110	2.4		mg/Kg	50	10/10/2013 1:28:06 PM	9739
Ethylbenzene	30	2.4		mg/Kg	50	10/10/2013 1:28:06 PM	9739
Xylenes, Total	280	4.8		mg/Kg	50	10/10/2013 1:28:06 PM	9739
Surr: 4-Bromofluorobenzene	132	80-120	S	%REC	50	10/10/2013 1:28:06 PM	9739
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	1.5		mg/Kg	1	10/10/2013 7:51:37 PM	9767

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: #3 @ 11"

Project: Florance "O" 20

Collection Date: 10/7/2013 2:43:00 PM

Lab ID: 1310451-003

Matrix: SOIL

Received Date: 10/9/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 6:05:08 PM	9754
Surr: DNOP	89.5	63-147		%REC	1	10/11/2013 6:05:08 PM	9754
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.8	5.0		mg/Kg	1	10/11/2013 1:32:36 AM	9739
Surr: BFB	111	80-120		%REC	1	10/11/2013 1:32:36 AM	9739
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 1:32:36 AM	9739
Toluene	0.29	0.050		mg/Kg	1	10/11/2013 1:32:36 AM	9739
Ethylbenzene	0.091	0.050		mg/Kg	1	10/11/2013 1:32:36 AM	9739
Xylenes, Total	1.3	0.099		mg/Kg	1	10/11/2013 1:32:36 AM	9739
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	10/11/2013 1:32:36 AM	9739
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	1.5		mg/Kg	1	10/11/2013 8:32:34 PM	9767

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#: 1310451

16-Oct-13

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID	MB-9767	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	9767	RunNo:	14007					
Prep Date:	10/10/2013	Analysis Date:	10/10/2013	SeqNo:	400633	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-9767	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	9767	RunNo:	14007					
Prep Date:	10/10/2013	Analysis Date:	10/10/2013	SeqNo:	400634	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	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#: 1310451

16-Oct-13

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID	MB-9754	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9754	RunNo:	13997					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400245	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	63	147			

Sample ID	LCS-9754	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9754	RunNo:	13997					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400246	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.4	77.1	128			
Surr: DNOP	4.8		5.000		96.0	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#: 1310451

16-Oct-13

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID MB-9739	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 9739	RunNo: 13978								
Prep Date: 10/9/2013	Analysis Date: 10/10/2013	SeqNo: 400097	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		101	80	120			

Sample ID LCS-9739	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 9739	RunNo: 13978								
Prep Date: 10/9/2013	Analysis Date: 10/10/2013	SeqNo: 400098	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.2	74.5	126			
Surr: BFB	1100		1000		110	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH 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#: 1310451

16-Oct-13

Client: Blagg Engineering
Project: Florance "O" 20

Sample ID MB-9739	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 9739	RunNo: 13978								
Prep Date: 10/9/2013	Analysis Date: 10/10/2013	SeqNo: 400173	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID LCS-9739	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 9739	RunNo: 13978								
Prep Date: 10/9/2013	Analysis Date: 10/10/2013	SeqNo: 400174	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.3	80	120			
Toluene	0.93	0.050	1.000	0	92.8	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1310451

RcptNo: 1

Received by/date: ACT 10/09/13

Logged By: **Michelle Garcia** 10/9/2013 10:00:00 AM *Michelle Garcia*

Completed By: **Michelle Garcia** 10/9/2013 11:54:04 AM *Michelle Garcia*

Reviewed By: WRS 10/9/13 14:40

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Turn-Around Time:

Standard Rush

Project Name:

FLORANCE "0" 20

Project #:

Project Manager:

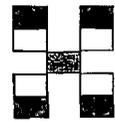
J. Blagg

Sampler: J. Blagg

On Ice: Yes No

Sample Temperature: 10

HEAL# 1316451



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL#	BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MBO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
10/7/13	1426	Soil	#1 @ 12"	4oz x 1	cool	-001	X	X										X	
"	1437	"	#2 @ 12"	"	"	-002	X	X										X	
"	1443	"	#3 @ 11"	"	"	-003	X	X										X	

Date: 10/8/13 Time: 1030 Relinquished by: Jeff Blagg

Received by: Christine Waller Date: 10/8/13 Time: 1030

Remarks: BILL Blagg

Date: 10/8/13 Time: 1740 Relinquished by: Christine Waller

Received by: [Signature] Date: 10/09/13 Time: 1000

BP Contact: J. Peace

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-1 @ 2.5'

Project: Florance O #20

Collection Date: 11/21/2013 11:37:00 AM

Lab ID: 1311A51-001

Matrix: SOIL

Received Date: 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/26/2013 4:27:12 PM
Surr: DNOP	97.5	66-131		%REC	1	11/26/2013 4:27:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/27/2013 3:55:02 AM
Surr: BFB	92.2	74.5-129		%REC	1	11/27/2013 3:55:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.046		mg/Kg	1	11/27/2013 3:55:02 AM
Toluene	ND	0.046		mg/Kg	1	11/27/2013 3:55:02 AM
Ethylbenzene	ND	0.046		mg/Kg	1	11/27/2013 3:55:02 AM
Xylenes, Total	ND	0.093		mg/Kg	1	11/27/2013 3:55:02 AM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	11/27/2013 3:55:02 AM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 1:02:10 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** EB-POR @ 3'
Project: Florance O #20 **Collection Date:** 11/21/2013 11:58:00 AM
Lab ID: 1311A51-002 **Matrix:** SOIL **Received Date:** 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/26/2013 4:49:03 PM
Surr: DNOP	101	66-131		%REC	1	11/26/2013 4:49:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2013 6:51:09 PM
Surr: BFB	104	74.5-129		%REC	1	11/26/2013 6:51:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	11/26/2013 6:51:09 PM
Toluene	ND	0.047		mg/Kg	1	11/26/2013 6:51:09 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2013 6:51:09 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/26/2013 6:51:09 PM
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	11/26/2013 6:51:09 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 1:14:35 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: EB-5 & 6 @ 3'

Project: Florance O #20

Collection Date: 11/21/2013 12:48:00 PM

Lab ID: 1311A51-003

Matrix: SOIL

Received Date: 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/26/2013 5:10:53 PM
Surr: DNOP	95.8	66-131		%REC	1	11/26/2013 5:10:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/26/2013 7:21:19 PM
Surr: BFB	102	74.5-129		%REC	1	11/26/2013 7:21:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.046		mg/Kg	1	11/26/2013 7:21:19 PM
Toluene	ND	0.046		mg/Kg	1	11/26/2013 7:21:19 PM
Ethylbenzene	ND	0.046		mg/Kg	1	11/26/2013 7:21:19 PM
Xylenes, Total	ND	0.093		mg/Kg	1	11/26/2013 7:21:19 PM
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	11/26/2013 7:21:19 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 1:27:00 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: EB-3 @ 5'

Project: Florance O #20

Collection Date: 11/21/2013 2:45:00 PM

Lab ID: 1311A51-004

Matrix: SOIL

Received Date: 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/26/2013 5:32:54 PM
Surr: DNOP	101	66-131		%REC	1	11/26/2013 5:32:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/26/2013 7:51:34 PM
Surr: BFB	102	74.5-129		%REC	1	11/26/2013 7:51:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.046		mg/Kg	1	11/26/2013 7:51:34 PM
Toluene	ND	0.046		mg/Kg	1	11/26/2013 7:51:34 PM
Ethylbenzene	ND	0.046		mg/Kg	1	11/26/2013 7:51:34 PM
Xylenes, Total	ND	0.092		mg/Kg	1	11/26/2013 7:51:34 PM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	11/26/2013 7:51:34 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 1:39:25 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: EB-8 @ 5'

Project: Florance O #20

Collection Date: 11/21/2013 3:00:00 PM

Lab ID: 1311A51-005

Matrix: SOIL

Received Date: 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	11	10		mg/Kg	1	11/26/2013 5:54:39 PM
Surr: DNOP	96.8	66-131		%REC	1	11/26/2013 5:54:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2013 8:21:50 PM
Surr: BFB	103	74.5-129		%REC	1	11/26/2013 8:21:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	11/26/2013 8:21:50 PM
Toluene	ND	0.047		mg/Kg	1	11/26/2013 8:21:50 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2013 8:21:50 PM
Xylenes, Total	ND	0.095		mg/Kg	1	11/26/2013 8:21:50 PM
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	11/26/2013 8:21:50 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 1:51:49 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** EB-4 & 7 @6'
Project: Florance O #20 **Collection Date:** 11/21/2013 3:31:00 PM
Lab ID: 1311A51-006 **Matrix:** SOIL **Received Date:** 11/23/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: BCN
Diesel Range Organics (DRO)	17	10		mg/Kg	1	11/26/2013 6:16:31 PM
Surr: DNOP	99.5	66-131		%REC	1	11/26/2013 6:16:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/26/2013 8:52:13 PM
Surr: BFB	103	74.5-129		%REC	1	11/26/2013 8:52:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	11/26/2013 8:52:13 PM
Toluene	ND	0.047		mg/Kg	1	11/26/2013 8:52:13 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/26/2013 8:52:13 PM
Xylenes, Total	ND	0.095		mg/Kg	1	11/26/2013 8:52:13 PM
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	11/26/2013 8:52:13 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	ND	30		mg/Kg	20	11/26/2013 2:04:14 PM

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#: 1311A51

03-Dec-13

Client: Blagg Engineering

Project: Florance O #20

Sample ID: MB-10543	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 10543	RunNo: 15118								
Prep Date: 11/26/2013	Analysis Date: 11/26/2013	SeqNo: 436191	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-10543	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 10543	RunNo: 15118								
Prep Date: 11/26/2013	Analysis Date: 11/26/2013	SeqNo: 436192	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	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#: 1311A51

03-Dec-13

Client: Blagg Engineering

Project: Florance O #20

Sample ID: MB-10502	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 10502	RunNo: 15051								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 434751			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	66	131			

Sample ID: LCS-10502	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 10502	RunNo: 15051								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 434752			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	113	62.1	127			
Surr: DNOP	5.2		5.000		105	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 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311A51

03-Dec-13

Client: Blagg Engineering

Project: Florance O #20

Sample ID: MB-10508	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436217			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		92.0	74.5	129			

Sample ID: LCS-10508	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436218			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	74.5	126			
Surr: BFB	980		1000		98.0	74.5	129			

Sample ID: MB-10508	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 10508	RunNo: 15122								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436355			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		103	74.5	129			

Sample ID: LCS-10508	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 10508	RunNo: 15122								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436356			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.6	74.5	126			
Surr: BFB	1100		1000		112	74.5	129			

Sample ID: MB-10574	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 10574	RunNo: 15172								
Prep Date: 11/27/2013	Analysis Date: 12/2/2013	SeqNo: 437480			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		86.5	74.5	129			

Sample ID: LCS-10574	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 10574	RunNo: 15172								
Prep Date: 11/27/2013	Analysis Date: 12/2/2013	SeqNo: 437481			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.0	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 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311A51

03-Dec-13

Client: Blagg Engineering
Project: Florance O #20

Sample ID: MB-10508	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436241	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: LCS-10508	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436242	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	93.7	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID: 1311A51-001AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: TH-1 @ 2.5'	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/27/2013	SeqNo: 436251	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.047	0.9461	0	90.6	67.3	145			
Toluene	0.89	0.047	0.9461	0.005339	93.8	66.8	144			
Ethylbenzene	0.91	0.047	0.9461	0	96.6	61.9	153			
Xylenes, Total	2.8	0.095	2.838	0	98.3	65.8	149			
Surr: 4-Bromofluorobenzene	1.1		0.9461		112	80	120			

Sample ID: 1311A51-001AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: TH-1 @ 2.5'	Batch ID: 10508	RunNo: 15119								
Prep Date: 11/25/2013	Analysis Date: 11/27/2013	SeqNo: 436252	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.047	0.9452	0	94.8	67.3	145	4.42	20	
Toluene	0.93	0.047	0.9452	0.005339	97.8	66.8	144	4.00	20	
Ethylbenzene	0.95	0.047	0.9452	0	100	61.9	153	3.63	20	
Xylenes, Total	2.9	0.095	2.836	0	102	65.8	149	3.43	20	
Surr: 4-Bromofluorobenzene	1.1		0.9452		113	80	120	0	0	

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#: 1311A51

03-Dec-13

Client: Blagg Engineering

Project: Florance O #20

Sample ID: MB-10508	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 10508	RunNo: 15122								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436368 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID: LCS-10508	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 10508	RunNo: 15122								
Prep Date: 11/25/2013	Analysis Date: 11/26/2013	SeqNo: 436369 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.050	1.000	0	84.9	80	120			
Toluene	0.86	0.050	1.000	0	86.1	80	120			
Ethylbenzene	0.88	0.050	1.000	0	88.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID: MB-10574	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 10574	RunNo: 15172								
Prep Date: 11/27/2013	Analysis Date: 12/2/2013	SeqNo: 437488 Units: %REC								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID: LCS-10574	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 10574	RunNo: 15172								
Prep Date: 11/27/2013	Analysis Date: 12/2/2013	SeqNo: 437489 Units: %REC								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	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

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1311A51**

RcptNo: **1**

Received by/date: AT 11/23/13

Logged By: **Lindsay Mangin** 11/23/2013 10:40:00 AM *Jessie Mangin*

Completed By: **Lindsay Mangin** 11/25/2013 7:42:19 AM *Jessie Mangin*

Reviewed By: mg 11/25/13

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

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

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) _____

Results 12/3

Standard Rush

Project Name: **FLORANCE O # 20**

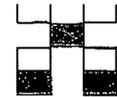
Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample Temperature: **10.5°C 11/23/13**



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

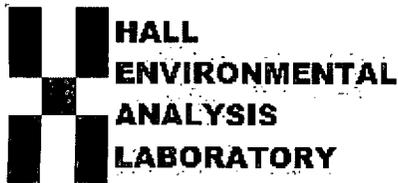
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + THMs (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / WRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 82705IMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	2 pt. composite sample
11/21/13	1137	SOIL	TH - 1 @ 2.5'	4 oz. - 1	Cool	311A51 -001	✓	✓										✓	✓	
11/21/13	1158	SOIL	EB - POR @ 3'	4 oz. - 1	Cool	-002	✓	✓										✓	✓	
11/21/13	1248	SOIL	EB - 5 & 6 @ 3'	4 oz. - 1	Cool	-003	✓	✓										✓		✓
11/21/13	1445	SOIL	EB - 3 @ 5'	4 oz. - 1	Cool	-004	✓	✓										✓	✓	
11/21/13	1500	SOIL	EB - 8 @ 5'	4 oz. - 1	Cool	-005	✓	✓										✓	✓	
11/21/13	1531	SOIL	EB - 4 & 7 @ 6'	4 oz. - 1	Cool	-006	✓	✓										✓		✓

Date: 11/24/13	Time: 1406	Relinquished by: [Signature]	Received by: [Signature]	Date: 11/23/13	Time: 1406
Date: 11/22/13	Time: 1706	Relinquished by: [Signature]	Received by: [Signature]	Date: 11/23/13	Time: 1046

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

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

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

May 05, 2014

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

RE: Florance "O" 20

OrderNo.: 1404B18

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/26/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1404B18

Date Reported: 5/5/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Trench 2, 5-pt comp@24"

Project: Florance "O" 20

Collection Date: 4/24/2014 10:08:00 AM

Lab ID: 1404B18-001

Matrix: SOIL

Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	31	10		mg/Kg	1	4/30/2014 2:28:59 AM	12899
Surr: DNOP	92.0	57.9-140		%REC	1	4/30/2014 2:28:59 AM	12899
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	51	9.4		mg/Kg	2	5/1/2014 4:03:00 PM	12911
Surr: BFB	221	74.5-129	S	%REC	2	5/1/2014 4:03:00 PM	12911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.094		mg/Kg	2	5/1/2014 4:03:00 PM	12911
Toluene	ND	0.094		mg/Kg	2	5/1/2014 4:03:00 PM	12911
Ethylbenzene	ND	0.094		mg/Kg	2	5/1/2014 4:03:00 PM	12911
Xylenes, Total	0.46	0.19		mg/Kg	2	5/1/2014 4:03:00 PM	12911
Surr: 4-Bromofluorobenzene	110	80-120		%REC	2	5/1/2014 4:03:00 PM	12911

Trench 2 re-sample event after hydrogen peroxide treatment

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** Trench 3, 2-pt comp@18"
Project: Florance "O" 20 **Collection Date:** 4/24/2014 10:33:00 AM
Lab ID: 1404B18-002 **Matrix:** SOIL **Received Date:** 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	14	10		mg/Kg	1	4/30/2014 3:31:18 AM	12899
Surr: DNOP	102	57.9-140		%REC	1	4/30/2014 3:31:18 AM	12899
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	16	4.9		mg/Kg	1	5/1/2014 5:00:03 PM	12911
Surr: BFB	135	74.5-129	S	%REC	1	5/1/2014 5:00:03 PM	12911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/1/2014 5:00:03 PM	12911
Toluene	0.17	0.049		mg/Kg	1	5/1/2014 5:00:03 PM	12911
Ethylbenzene	ND	0.049		mg/Kg	1	5/1/2014 5:00:03 PM	12911
Xylenes, Total	1.4	0.098		mg/Kg	1	5/1/2014 5:00:03 PM	12911
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/1/2014 5:00:03 PM	12911

Trench 3 re-sample event after hydrogen peroxide treatment

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#: 1404B18

05-May-14

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID	MB-12899	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12899	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/29/2014	SeqNo:	528690	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.5	57.9	140			

Sample ID	LCS-12899	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12899	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/29/2014	SeqNo:	528691	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.6	60.8	145			
Surr: DNOP	4.3		5.000		86.9	57.9	140			

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#: 1404B18

05-May-14

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID	MB-12911	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529105	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	850		1000		84.8	74.5	129			

Sample ID	LCS-12911	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529106	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	71.7	134			
Surr: BFB	940		1000		93.8	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#: 1404B18

05-May-14

Client: Blagg Engineering

Project: Florance "O" 20

Sample ID	MB-12911	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529274	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		101	80	120			

Sample ID	LCS-12911	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529275	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		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.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1404B18**

RcptNo: 1

Received by/date: **AF** **04/26/14**

Logged By: **Lindsay Mangin** **4/26/2014 11:00:00 AM** *Lindsay Mangin*

Completed By: **Lindsay Mangin** **4/28/2014 8:02:43 AM** *Lindsay Mangin*

Reviewed By: **JO** **04/28/14**

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp.°C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			

