

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: Steve Moskal	
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497	
Facility Name: Florance Gas Com J 016A	Facility Type: Natural gas well	
Surface Owner: Federal	Mineral Owner: Federal	API No. 3004521790

### LOCATION OF RELEASE

Unit Letter P	Section 06	Township 30N	Range 09W	Feet from the 825	North/South Line South	Feet from the 1,030	East/West Line East	County: San Juan
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Latitude 36.83551° Longitude -107.81667°

### NATURE OF RELEASE



Type of Release: Produced water, oil and condensate	Volume of Release: unknown	Volume Recovered: none
Source of Release: Former drilling reserve pit, compressor, BGT	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: March 30, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	<b>RCVD BY OCD DIII AUG 14, 2017</b>
By Whom? Steve Moskal	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Historical impacts were determined via multi-phase investigation. The identified impacts are believed to have been associated with former earthen pits in the immediate vicinity of the two below grade tanks and compressor operated by BP. BP has completed the remediation of the known extents of soil impacts via soil shredding

Describe Area Affected and Cleanup Action Taken.\* The entire northern half of the existing well pad, as well as some additional off site soils were remediated via soil shredding. The total area of remediation measured approximately 300'x180'x35' deep. A hydrogen peroxide solution was applied to stormwater entering the excavation during the final stages, along the southwest wall. A total of 112,000 cubic yards of soil was successfully treated via soil shredding. Attached is a comprehensive report of activities and laboratory data for excavation and shredded soil sampling. BP requests no further action.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: 2/28/18	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: —	Attached <input checked="" type="checkbox"/>
Date: August 9, 2017	Phone: 505-326-9497	

\* Attach Additional Sheets If Necessary 3RP-9

#nCS1629854256

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**Ken McQueen**  
Cabinet Secretary

**Matthias Sayer**  
Deputy Cabinet Secretary

**Heather Riley**, Division Director  
**Oil Conservation Division**



New Mexico Oil Conservation Division approval and conditions  
listed below are made in accordance with OCD Rule 19.15.5.11

February 28, 2018

Re: Florance Gas Com J16A – Conditions of Approval

Dear Mr. Moskal,

The New Mexico Oil Conservation Division (OCD) received BP America Production Company (BP) C-141 for the Florance Gas Com J #16A on August, 14, 2017 after review the OCD has approved the C-141 with the following conditions of approval.

1. The OCD grants BP request for no further action for soil impacts in zone 27.
2. The OCD grants BP request for no further action for soil impacts in zone 54S.

It should be noted that the location of this site is still under active investigation and environmental remediation by a second operator and should their investigation provide additional information additional remediation or delineation may be required by BP.

The acceptance of this C-141 report by the OCD 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.

If you have any questions please feel free to contact me at your leisure.

  
NMOCD Approved by Signature

February 28, 2018  
Date

**Remedial Excavation  
of  
Hydrocarbon Impacted Bedrock**

**Florance GC J 16A  
(P) Sec 6 – T30N – R9W  
API: 30-045-21790  
San Juan County, New Mexico**

Prepared for:  
BP America Production Co.  
Farmington, New Mexico

Prepared by:  
Blagg Engineering, Inc.  
P.O. Box 87  
Bloomfield, New Mexico 87413  
(505)632-1199

July 31, 2017

REMEDIAL EXCAVATION  
OF  
HYDROCARBON IMPACTED BEDROCK

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Figure 3: Contour Map of Remedial Excavation

Figure 4: Temporary Use Area Vadose Zone Map

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Appendix D: Temporary Use Area Vadose Zone – Laboratory Analytical Data Report



# REMEDIAL EXCAVATION OF HYDROCARBON IMPACTED BEDROCK

## INTRODUCTION

Blagg Engineering Inc. (BEI) has been retained by BP America Production Co. (BP) to monitor, sample and document environmental remediation of hydrocarbon impacts at the Florance GC J 16A, a natural gas well located in rural San Juan County, New Mexico at (P) Sec. 6 – T30N – R9W (Figure 1). The historical origin of the hydrocarbon release at the site is not known but prior investigations identified two source areas operated by BP on the north end of the well pad, both near 95 barrel below grade tanks (BGT's) as shown on Figure 1. An additional source of impacts had previously been identified on the south end of the location in the area of a 45 barrel BGT operated by a third party, Williams Pipeline. This source area is not operated by BP and a partial remediation of this impact was conducted by the owner in November through December of 2016, by excavation. BP began initial remedial excavations on October 25, 2016. This work was temporarily suspended on November 10, 2016 due to work area restrictions with the third party conducting their own remediation on the same well pad. BP resumed remedial excavations on January 4, 2017 and completed the work on April 11, 2017. Final site backfilling, contouring and sampling was concluded on May 1, 2017.

Five groundwater monitor wells (MW-1 through MW-5) previously installed by BP in May and June, 2015 were at the site prior to beginning the remediation. This drilling identified the site lithology as comprised of dense sandstone beginning within the first several feet below ground surface (bgs) and extending to a depth of approximately 35 feet bgs, where a dense blue shalestone is present. A thin perched water table is found to be confined on this shalestone. Sampling of the pre-existing monitoring wells determined that hydrocarbon impacts to groundwater were present in the vicinity of the 45 barrel BGT on the southern end of the well pad, but not in the area of the BP surface soil impacts on the northern end of the well pad. In summary, monitor wells MW-1 and MW-4 located immediately down-gradient of BP operated surface equipment were tested to be non-detect for all hydrocarbons. The monitor wells immediately up-gradient of the third party 45 barrel BGT (MW-2 and MW-5) demonstrated hydrocarbon impacts exceeding NMOCD standards, and the monitor well adjacent to the 45 barrel BGT (MW-3) was found to have 2.38 feet of floating hydrocarbon liquids (apparent condensate).

To further delineate subsurface impacts BP contracted the installation of five additional groundwater monitor wells and one soil boring while remedial excavation was proceeding. This drilling was conducted between January 10 – 13, 2017 and included the installation of monitor wells MW-6 through MW-10 and soil boring BH-A (Figure 1). The findings of this drilling are documented in the BEI report "Drilling Investigation", dated March 31, 2017. In summary, the investigation confirmed a clear separation of soil impacts between the BP operated source areas on the north side of the well pad and the third party impacts on the south side. Additionally, monitor well water sampling confirmed that site groundwater impacts were unlikely to have been contributed by prior BP operations.

## REMEDATION ACTIVITIES

Site remediation consisted of 3 separate activities: (1) excavation of impacted sandstone in all directions until site closure standards had been achieved, (2) on-site treatment of impacted media to remove hydrocarbon impacts to below site closure standards, followed by placing the treated soil back into cleaned up areas of the remedial excavation, and (3) post remedial sampling of temporary use areas outside of impact zones to confirm residual hydrocarbon impacts were not present in concentrations exceeding site closure standards. The procedures to carry out these activities are discussed below.

The closure standard for the site as determined by the New Mexico Oil Conservation Division (NMOCD) and the U.S. Bureau of Land Management (BLM) was based on the potential risk to ground and surface water from hydrocarbon impacts. At this site the closure standard was established as follows:

Total Petroleum Hydrocarbons (TPH) = 100 mg/Kg (parts per million)  
Benzene = 10 mg/Kg  
Benzene, Toluene, Ethyl-Benzene and Total Xylenes (BTEX) combined = 50 mg/Kg  
Total Chlorides = 600 mg/Kg

### Excavation of Impacted Media to Achieve Site Remediation

Removal of impacted bedrock sandstone was conducted using a Caterpillar D8 dozer with a single ripping tooth and support with up to three excavators. Final remediation began on January 5, 2017 at the area of the BP operated 95 barrel BGT on the northeast side of the location. After the northeast and east limits of impacts had been removed and sampling confirmed closure of those areas, the excavation was advanced in a westward direction. Excavated impacted media was stacked and stored on the well pad for subsequent treatment via shredding and chemical treatment (discussed below). Excavation continued in all directions until composite samples submitted for laboratory analytical testing confirmed that sidewalls and base areas were within site closure standards. The final excavating and sampling was concluded on April 11, 2017. The excavated area was approximately 300' (east to west) x 180' (north to south) with maximum depths of approximately 35' bgs (Figures 2 and 3).

Closure sampling was progressive as the excavation advanced. Sampling areas were marked out on the excavation walls and base for collection of 5-point composites from each area. Due to the dense bedrock nature of the media this sampling was performed using an excavator trackhoe to dig into and break up the rock for composite collection. All closure sampling was witnessed by either or both the NMOCD and BLM. Representative composite portions of sample were placed into a gallon sized Ziploc® baggie for field headspace analysis of organic vapors with a calibrated IonScience Tiger model photo-ionization detector (PID) containing a 11.2 eV lamp. Split samples were placed into a 4-ounce laboratory supplied jar with Teflon® lid, labeled and placed on ice in an ice chest for further laboratory testing. The jarred samples were hand delivered to a representative of Hall Environmental Analytical Laboratories for analysis via U.S. EPA Method 8021B (volatile organics limited to benzene, toluene, ethyl benzene and total xylenes), U.S. EPA

Method 8015 (gasoline range (GRO), diesel range (DRO) and motor oil range (MRO) organics), and chlorides via U.S. EPA Method 300. A chain-of-custody followed the samples.

In the event that a closure area failed on laboratory testing, that area was further advanced with the excavation equipment and re-sampled. A summary of laboratory analytical results is included in Table 1: Summary Excavation Closure Analytical Data. The comments section in Table 1 indicate those sample areas that failed on initial testing and the subsequent actions taken to reach closure. Laboratory test reports are attached in Appendix B.

At the completion of remedial excavations there were a total of 65 separate composite sampling areas. With the exception of 2 sampling areas, each area tested below the site closure standard. The first failed area, Zone 27 (sidewall, interval -10' to -30' bgs) was sampled on February 22, 2017 and failed on total TPH at 440 mg/Kg. Partial backfilling of this area was necessary to advance the excavation towards the west. The un-backfilled portion of Zone 27 was sampled in Zone 65 (sidewall, interval -3' to -22' bgs) on April 11, 2017 and this portion tested at non-detect for TPH. Based on the surrounding sampling zones of Zone 27 (ie, Zones 25R, 26, 28 and 65) testing below the site closure standard, and with soil samples collected from adjacent monitor wells MW-4, MW-8 and MW-9 all testing at non-detect for TPH in all intervals below 19' bgs, the residual impacts in Zone 27 between the interval of -22' to -30' bgs are not indicated to be contributing to site groundwater impacts. Additionally, down-gradient monitor wells MW-4 and MW-9 both have tested non-detect for hydrocarbon constituents in groundwater.

The second sampling zone that did not meet site closure standards was Zone 54 (Shallow, -4' to -8' bgs). Zone 54 (-4' to -16' bgs) was first sampled on March 30, 2017 and failed on total TPH at 363 mg/Kg. This zone was re-sampled as Zone 54 (Deep, -8' to -16' bgs) and Zone 54 (Shallow, -4' to -8' bgs) on April 11, 2017. The Zone 54 (Deep) composite tested TPH at non-detect, and Zone 54 (Shallow) tested at 2,168 mg/Kg. A test trench was advanced across this shallow section and extended towards the southeast (shown on Figure 2). Grab soil samples collected at 7 feet below grade across this trench all tested TPH at values exceeding site closure standards. The original source of these shallow impacts could not be determined. BP elected to cease remedial excavations towards the southeast in this area due to the immediate proximity of third party impact sources known to exist in this vicinity. The remaining impacts in Zone 54 (Shallow) are not indicated to be contributing to site groundwater impacts.

An additional, un-scheduled site impact mitigation was conducted on April 4, 2017. A heavy overnight precipitation deposited approximately 8-inches of wet, heavy snow. As this snow melted it drained across sidewalls on the southwest extent of the open excavation and pooled at the base of the excavation. There was concern that this drainage could carry hydrocarbon impacts from the shallow impacted sidewalls to the base of the excavation. Approximately 850 gallons of concentrated hydrogen peroxide were sprayed on the open excavation base to remediate potential impacts from this drainage.

## Remediation of Excavated Impacted Media via Soil Shredding

BP contracted remediation of excavated impacted sandstone to a private enterprise, Unlimited Construction, for on-site treatment. A proprietary process (termed ‘soil shredding’) was used to crush the sandstone and then chemically treat the fine grained media with hydrogen peroxide to remove hydrocarbons. Following soil shredding, the treated material was sampled to confirm that site closure standards had been achieved and then placed back into clean portions of the remedial excavation. This process progressed at the same approximate rate as the excavation advanced.

Treated soil was placed into labeled stockpiles prior to closure sampling. This sampling was performed using an excavator trackhoe to dig into each pile and collect composite samples for initial field analysis and subsequent laboratory testing. Sample handling, regulatory witnessing, preservation, chain-of-custody and laboratory test procedures were the same as previously described.

At the onset of the soil shredding process certain piles failed on first testing. This can be a common occurrence with the initial shredding process until the proper chemical balance for remediation is determined. These piles were re-treated and subsequently tested below site standards. Later in the shredding process some piles failed on first testing but subsequent testing on the failed piles yielded passing test results. This too can be common as the chemical process is not instantaneous, but progressive over time. A summary of treated soil laboratory test data is presented in Table 2, Summary Treated Soil Pile Analytical Data. Laboratory test reports are attached in Appendix C.

## Temporary Use Area Closure

The original well pad area was insufficient in size for storage of both excavated impacted material and storage of treated shredded soil. It was necessary to obtain temporary use areas (TUA’s) off the well pad for this storage (Figure 4). These areas were located on the east and west sides of the well pad. Following BLM guidelines, a cultural survey was conducted in these areas prior to use to insure no cultural risk was present. The areas were then used to temporarily store treated, shredded soil only.

Following completion of the remedial excavation and backfilling with shredded soils, the TUA’s were sampled to insure no residual hydrocarbon impacts exceeding site closure standards were present. This sampling was performed on May 1, 2017 by hand sampling composites from each use area (Figure 4). Sample handling, regulatory witnessing, preservation, chain-of-custody and laboratory test procedures were the same as previously described. All areas tested below site closure standards. A summary of TUA test data is presented in Table 3, Temporary Use Area Vadose Zone Analytical Data. Laboratory test reports are attached in Appendix D.

## CONCLUSIONS AND RECOMMENDATIONS

- 1) Hydrocarbon impacted soil and bedrock at the Florance GC J 16A, of an historical nature, in release areas from BP operations has been successfully excavated and treated. Excavation sampling and analytical testing has confirmed that 63 of 65 separate sampling zones within the remedial excavation test below site closure standards. The two zones with residual hydrocarbon impacts exceeding site closure standards (Zone 27 (-22' to -30' bgs) and Zone 54 (-4' to -8' bgs) are not indicated to contribute a risk to surface or groundwater. No additional site remediation of BP impacts is indicated. Regulatory closure of remedial activities is recommended.
- 2) All soils treated on-site via the proprietary 'soil shredding' process and backfilled into the remedial excavation have demonstrated via analytical testing to be within site closure standards. These treated soils are not indicated to contribute a risk to surface or groundwater. No additional treatment is recommended.
- 3) Off-pad temporary use areas have been sampled and analytical testing has indicated that the residual ground surface meets site closure standards. No additional confirmation sampling is recommended.

## CLOSURE AND LIMITATIONS

This report has been prepared for the exclusive use of BP America Production Company as it pertains to hydrocarbon impact remediation at the Florance GC J 16A in San Juan County, New Mexico. The data presented herein is based on visual observations, subsurface soil conditions encountered at sampling locations and on information reported by analytical laboratory testing of soils. This report does not reflect variations which may exist between sampling locations.

I certify that the work performed by Blagg Engineering, Inc. as described in this report was directed by my supervision, and that I am personally familiar with the remedial actions and the contents of this report.

Submitted by:

**Blagg Engineering, Inc.**

*Jeffrey C. Blagg*

**Jeffrey C. Blagg, PE**  
**NMPE 11607**



## Tables

**TABLE 1**  
**Florance GC J 16A**  
**Summary Excavation Closure Analytical Data**  
**Page 1 of 2**

Sample ID	Date	BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH Total (mg/Kg)	Comments
Zone 1 (-5' to -15')	1/11/2017	ND	5	200	54	259	Excavated, re-sampled as Zone 7
Zone 2 (-5' to -15')	1/11/2017	ND	42	250	1,500	1,792	Excavated, re-sampled as Zone 8
Zone 3 (-5' to -15')	1/11/2017	ND	42	990	450	1,482	Excavated, re-sampled as Zone 9
Zone 4 (-5' to -15')	1/11/2017	ND	ND	66	ND	66	
Zone 5 (-5' to -15')	1/11/2017	ND	ND	9.8	ND	9.8	
Zone 6 (-5' to -15')	1/11/2017	ND	ND	29	ND	9.8	
Zone 7 (-7' to -17')	1/13/2017	ND	ND	ND	ND	ND	
Zone 8 (-7' to -17')	1/13/2017	ND	ND	ND	ND	ND	
Zone 9 (-7' to -17')	1/13/2017	ND	ND	10	ND	10	
Zone 10 (Base @ -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 11 (Base @ -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 12 (-12' to -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 13 (-12' to -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 14 (-12' to -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 15 (-12' to -20')	1/20/2017	ND	ND	ND	ND	ND	
Zone 16 (Base @ -22')	1/20/2017	ND	ND	ND	ND	ND	
Zone 17 (Base @ -22')	1/20/2017	ND	ND	ND	ND	ND	
Zone 18 (-14' to -24')	2/16/2017	ND	ND	44	ND	44	
Zone 19 (-14' to -24')	2/16/2017	ND	66	530	110	706	Excavated, Re-Sampled as Zone 29
Zone 20 (Base @ -24')	2/16/2017	ND	ND	62	ND	62	
Zone 21 (Base @ -24')	2/16/2017	3.4	200	630	120	950	Excavated, Re-Sampled as Zones 24 & 25
Zone 22 (-10' to -30')	2/22/2017	ND	6	120	130	256	Excavated, Re-Sampled as Zone 22R2
Zone 22R2 (-10' to -32')	2/27/2017	ND	ND	ND	ND	ND	
Zone 23 (Base @ -32')	2/22/2017	ND	ND	26	ND	26	
Zone 24 (Base @ -32')	2/22/2017	ND	ND	22	ND	22	
Zone 25 (Base @ -32')	2/22/2017	0.97	61	380	86	527	Excavated, Re-Sampled as Zone 25R
Zone 25R (Base @ -35')	2/27/2017	0.40	4	52	ND	56	
Zone 26 (Base @ -32')	2/22/2017	ND	ND	13	ND	13	
Zone 27 (-10' to -30')	2/22/2017	ND	43	320	77	440	Partially Re-Sampled in Zone 65
Zone 28 (-10' to -30')	2/22/2017	ND	ND	23	ND	23	
Zone 29 (-15' to -30')	2/22/2017	ND	ND	16	ND	16	
Zone 30 (Base @ -35')	2/27/2017	ND	ND	ND	ND	ND	
Zone 31 (Base @ -35')	2/27/2017	ND	ND	ND	ND	ND	
Zone 32 (Base @ -35')	2/27/2017	ND	ND	ND	ND	ND	
Zone 33 (Base @ -35')	2/27/2017	ND	ND	ND	ND	ND	
Zone 34 (-10' to -32')	2/27/2017	ND	ND	ND	ND	ND	
Zone 35 (-6' to -32')	3/7/2017	ND	ND	ND	ND	ND	
Zone 36 (-20' to -32')	3/7/2017	ND	ND	ND	ND	ND	
Zone 37 (-18' to -30')	3/10/2017	ND	ND	ND	ND	ND	
Zone 38 (-18' to -30')	3/10/2017	ND	ND	28	ND	28	
NMOCD Closure Standard		50				100	

ND = not detected. Benzene and Chloride = ND on all samples. Depths are approximate from original wellpad grade.

Table 1  
Summary Excavation Closure Analytical Data  
Page 2 of 2

Sample ID	Date	BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH Total (mg/Kg)	Comments
Zone 39 (-6' to -20')	3/13/2017	ND	ND	ND	ND	ND	
Zone 40 (-6' to -20')	3/13/2017	ND	ND	ND	ND	ND	
Zone 41 (-6' to -20')	3/13/2017	ND	ND	ND	ND	ND	
TH101 @ 31'	3/13/2017	ND	ND	ND	ND	ND	
TH101(North, -12' to -25')	3/13/2017	ND	ND	ND	ND	ND	
TH101(West, -12' to -25')	3/13/2017	ND	ND	ND	ND	ND	
TH101 (Base @ -25')	3/13/2017	ND	ND	ND	ND	ND	
Zone 42 (-6' to -14')	3/15/2017	ND	ND	ND	ND	ND	
Zone 43 (-6' to -14')	3/15/2017	ND	ND	ND	ND	ND	
Zone 44 (-6' to -14')	3/15/2017	ND	ND	11	ND	11	
Zone 45 (Base @ -35')	3/17/2017	ND	ND	ND	ND	ND	
Zone 46 (-20' to -33')	3/17/2017	ND	ND	ND	ND	ND	
Zone 47 (-20' to -33')	3/21/2017	ND	ND	42	ND	42	
Zone 48 (-6' to -14')	3/21/2017	ND	ND	ND	ND	ND	
Zone 49 (Base @ -18')	3/30/2017	ND	ND	ND	ND	ND	
Zone 50 (Base @ -17')	3/30/2017	ND	ND	ND	ND	ND	
Zone 51 (-10' to -17')	3/30/2017	ND	ND	ND	ND	ND	
Zone 52 (Base @ -18')	3/30/2017	ND	ND	ND	ND	ND	
Zone 53 (Base @ -17')	3/30/2017	ND	ND	ND	ND	ND	
Zone 54 (-4' to -16')	3/30/2017	ND	8.1	280	75	363	Re-Sampled as Zones 54 Deep & Shallow
Zone 54 (Deep)(-8' to -16')	4/11/2017	ND	ND	ND	ND	ND	
Zone 54 (Shallow)(-4' to -8')	4/11/2017	8.1	500	1400	260	2,168	
Zone 55 (-18' to -30')	3/30/2017	ND	ND	ND	ND	ND	
Zone 56 (-5' to -18')	3/30/2017	ND	ND	ND	ND	ND	
Zone 57 (-5' to -18')	3/30/2017	1.0	120	680	130	930	Excavated, re-sampled as Zones 57 Deep & Shallow
Zone 57 (Deep) (-10' to -18')	4/11/2017	ND	ND	ND	ND	ND	
Zone 57 (Shallow)(-5' to 10')	4/11/2017	ND	ND	ND	ND	ND	
Zone 58 (Base @ -35')	4/4/2017	ND	ND	ND	ND	ND	
Zone 59 (Base @ -35')	4/4/2017	ND	ND	14	ND	14	
Zone 60 (-18' to -33')	4/4/2017	ND	ND	ND	ND	ND	
Zone 61 (-18' to -33')	4/4/2017	ND	ND	ND	ND	ND	
Zone 62 (-18' to -33')	4/4/2017	ND	ND	ND	ND	ND	
Zone 63 (-18' to -33')	4/4/2017	ND	ND	ND	ND	ND	
Zone 64 (-3' to -20')	4/11/2017	ND	9.6	14	ND	23.6	
Zone 65 (-3' to -22')	4/11/2017	ND	ND	ND	ND	ND	
Trench – Point 1 (-7')	4/11/2017	3.66	140	1,100	170	1,410	
Trench – Point 2 (-7')	4/11/2017	ND	26	280	59	365	
Trench – Point 3 (-7')	4/11/2017	ND	ND	310	77	387	
Trench – Point 4 (-7')	4/11/2017	0.86	56	420	95	571	
NMOCD Closure Standard		50				100	

ND = not detected. Benzene and Chloride = ND on all samples. Depths are approximate from original wellpad grade.



TABLE 2  
Florance GC J 16A  
(P) Sec 6 – T30N – R9W  
San Juan County, New Mexico  
API: 30-045-21790

Summary Treated Soil Pile Analytical Data

Pile ID	Volume (CY)	Date Created	Date Sampled	Field OVM (ppm)	BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH Total (mg/Kg)	Chloride (mg/Kg)
TSP-1	100	1/6/2017	1/13/2017	53	0.12	32	31	ND	64	ND
TSP-2	100	1/6/2017	1/13/2017	71	0.11	41	40	ND	81	ND
TSP-3	100	1/6/2017	1/13/2017	52	0.17	40	32	ND	72	ND
TSP-4	100	1/9/2017	1/13/2017	129	0.11	36	31	ND	67	ND
TSP-5	100	1/9/2017	1/13/2017	55	0.12	38	14	ND	52	ND
TSP-6	100	1/9/2017	1/13/2017	68	0.11	27	25	61	113	ND
TSP-7	100	1/9/2017	1/13/2017	230	0.26	44	250	130	424	ND
TSP-8	100	1/9/2017	1/13/2017	153	0.20	45	230	130	405	ND
TSP-9	100	1/10/2017	1/13/2017	247	0.43	61	400	190	651	ND
TSP-10	100	1/10/2017	1/13/2017	240	0.34	61	400	200	661	ND
TSP-11	100	1/12/2017	1/20/2017	23.0	ND	74	360	240	674	ND
TSP-12	100	1/12/2017	1/20/2017	19.7	ND	71	320	290	681	ND
TSP-13	100	1/12/2017	1/20/2017	24.3	ND	84	380	250	714	ND
TSP-14	100	1/12/2017	1/20/2017	16.5	ND	73	360	180	613	ND
TSP-15	100	1/12/2017	1/20/2017	35.2	ND	73	330	170	573	ND
TSP-16	100	1/12/2017	1/20/2017	39.2	ND	76	370	200	646	ND
TSP-17	100	1/12/2017	1/20/2017	36.5	ND	71	370	200	641	ND
TSP-18	100	1/12/2017	1/20/2017	36.2	ND	82	390	210	682	ND
TSP-19	100	1/12/2017	1/20/2017	35.2	ND	80	350	250	680	ND
TSP-20	100	1/12/2017	1/20/2017	46.2	ND	87	500	260	847	ND
TSP-21	100	1/12/2017	1/20/2017	35.0	ND	79	420	290	789	ND
TSP-22	100	1/12/2017	1/20/2017	30.8	ND	73	390	330	793	ND
TSP-23	700	1/11/2017	1/24/2017	22.4	ND	38	100	360	493	ND
TSP-24	100	1/13/2017	1/24/2017	25.7	ND	26	300	190	516	ND
TSP-25	100	1/13/2017	1/24/2017	12.8	ND	20	250	150	420	ND
TSP-26	100	1/13/2017	1/24/2017	23.8	ND	22	260	180	462	ND
TSP-27	100	1/13/2017	1/24/2017	14.9	ND	22	200	250	472	ND
TSP-28	100	1/13/2017	1/24/2017	16.4	ND	25	140	140	305	ND
TSP-29	100	1/16/2017	1/24/2017	10.7	ND	21	200	180	401	ND
TSP-30	100	1/16/2017	1/24/2017	10.5	ND	24	170	120	314	ND
TSP-31	100	1/16/2017	1/24/2017	21.2	ND	24	220	150	394	ND
TSP-32	100	1/16/2017	1/24/2017	16.1	ND	23	230	160	413	ND
TSP-33	100	1/16/2017	1/24/2017	20.2	ND	26	150	120	296	ND
TSP-34	100	1/16/2017	1/24/2017	19.1	ND	24	210	140	374	ND
TSP-35	100	1/16/2017	1/24/2017	24.9	ND	29	270	200	499	ND
TSP-36	100	1/16/2017	1/24/2017	20.2	ND	21	180	180	381	ND
TSP-37	100	1/16/2017	1/24/2017	25.7	ND	31	310	290	631	ND
TSP-38	100	1/16/2017	1/24/2017	20.6	ND	21	180	130	331	ND
TSP-39	500	1/17/2017	1/24/2017	15.0	ND	14	230	160	404	ND
TSP-40	500	1/17/2017	1/24/2017	19.3	ND	ND	210	85	295	ND
				Field		TPH	TPH	TPH	TPH	

File ID	Volume (CY)	Date Created	Date Sampled	OVM (ppm)	BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)	Total (mg/Kg)	Chloride (mg/Kg)
TSP-41	500	1/17/2017	1/24/2017	20.7	ND	23	310	220	553	ND
TSP-42	500	1/19/2017	1/24/2017	11.9	ND	ND	110	58	168	ND
TSP-43	500	1/19/2017	1/24/2017	12.9	ND	ND	120	53	173	ND
Re-sample of previously tested piles:										
TSP-16/17	200	1/19/2017	1/30/2017	42	--	35	400	190	625	--
TSP-26/27	200	1/19/2017	1/30/2017	39	--	33	360	170	563	--
TSP-31/32	200	1/19/2017	1/30/2017	52	--	33	360	190	583	--
Sampling of Re-treated Piles: (#39 - #43)										
TSP-RT-100-01	100	1/30/2017	2/3/2017	1.6	NA	13	31	ND	44	NA
TSP-RT-100-02	100	1/30/2017	2/3/2017	2.1	NA	15	39	ND	54	NA
TSP-RT-100-03	100	1/30/2017	2/3/2017	2.4	NA	16	100	ND	116	NA
TSP-RT-100-04	100	1/30/2017	2/3/2017	2.0	NA	15	14	ND	29	NA
TSP-RT-100-05	100	1/30/2017	2/3/2017	3.1	NA	14	30	ND	44	NA
TSP-RT-100-06	100	1/30/2017	2/3/2017	2.7	NA	30	31	ND	61	NA
TSP-RT-100-07	100	1/30/2017	2/3/2017	2.9	NA	24	47	ND	71	NA
TSP-RT-100-08	100	1/30/2017	2/3/2017	3.3	NA	28	36	ND	64	NA
TSP-RT-100-09	100	1/30/2017	2/3/2017	3.3	NA	31	38	ND	69	NA
TSP-RT-100-10	100	1/30/2017	2/3/2017	2.8	NA	16	50	ND	66	NA
TSP-RT-500-01	500	2/1/2017	2/3/2017	2.7	NA	3.7	27	ND	30.7	NA
TSP-RT-500-02	500	2/1/2017	2/3/2017	5.6	NA	4.5	49	ND	53.5	NA
TSP-RT-500-03	500	2/1/2017	2/3/2017	3.5	NA	3.3	28	ND	31.3	NA
TSP-RT-500-04	500	2/1/2017	2/3/2017	3.5	NA	4.2	32	ND	36.2	NA
Sampling of Re-treated Piles: (#7 - #38)										
TSP-RT-500-05	500	2/3/2017	2/7/2017	5.1	NA	14	28	ND	42	NA
TSP-RT-500-06	500	2/4/2017	2/7/2017	4.2	NA	13	20	ND	33	NA
TSP-RT-500-07	500	2/4/2017	2/7/2017	7.4	NA	16	23	ND	39	NA
TSP-RT-500-08	500	2/6/2017	2/7/2017	8.1	NA	12	21	ND	33	NA
TSP-RT-500-09	500	2/6/2017	2/7/2017	16.3	NA	21	24	ND	45	NA
TSP-RT-500-10	500	2/7/2017	2/7/2017	36.9	NA	28	53	ND	81	NA
				Field		TPH	TPH	TPH	TPH	

Pile ID	Vol. (CY)	Date Created	Date Sampled	OVM (ppm)	BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)	Total (mg/Kg)	Chloride (mg/Kg)
TSP-RT-300-11	300	2/7/2017	2/9/2017	15.1	NA	23	23	ND	46	NA
TSP-RT-500-12	500	2/8/2017	2/9/2017	23.9	NA	22	30	ND	52	NA
TSP-RT-500-13	500	2/8/2017	2/9/2017	8.8	NA	21	26	ND	47	NA
Sampling of New Piles:										
TSP-44	100	2/8/2017	2/9/2017	9.2	ND	13	25	ND	38	ND
TSP-45	100	2/8/2017	2/9/2017	18.7	ND	16	22	ND	38	ND
TSP-46	100	2/8/2017	2/9/2017	7.4	ND	11	18	ND	29	ND
TSP-47	100	2/8/2017	2/9/2017	14.9	ND	40	31	ND	71	ND
TSP-48	100	2/8/2017	2/9/2017	9.4	ND	39	29	ND	68	ND
TSP-49	100	2/9/2017	2/9/2017	3.3	ND	12	35	ND	47	ND
TSP-50	100	2/9/2017	2/9/2017	16.1	ND	15	54	ND	69	ND
TSP-51	100	2/9/2017	2/9/2017	12.9	ND	16	34	ND	50	ND
TSP-52	100	2/9/2017	2/9/2017	12.6	ND	14	28	ND	42	ND
TSP-53	100	2/9/2017	2/9/2017	27.7	ND	15	26	ND	41	ND
TSP-54	500	2/9/2017	2/16/2017	2.8	ND	ND	17	ND	17	ND
TSP-55	500	2/13/2017	2/16/2017	3.5	ND	ND	9.2	ND	9.2	ND
TSP-56	500	2/13/2017	2/16/2017	2.8	ND	ND	15	ND	15	ND
TSP-57	500	2/14/2017	2/16/2017	3.5	ND	ND	ND	ND	ND	ND
TSP-58	500	2/15/2017	2/16/2017	4.1	ND	ND	12	ND	12	ND
TSP-59	500	2/15/2017	2/16/2017	8.3	ND	4.8	50	ND	54.8	ND
TSP-60	500	2/15/2017	2/16/2017	21.0	ND	8.0	64	ND	72	ND
TSP-61	500	2/16/2017	2/16/2017	26.0	ND	9.8	63	ND	72.8	ND
TSP-62	500	2/16/2017	2/22/2017	6.9	ND	ND	67	ND	67	ND
TSP-63	500	2/17/2017	2/22/2017	11.4	ND	ND	100	ND	100	ND
TSP-64	500	2/17/2017	2/22/2017	10.0	ND	ND	70	ND	70	ND
TSP-65	500	2/21/2017	2/22/2017	9.5	ND	ND	10	ND	10	ND
TSP-66	500	2/21/2017	2/22/2017	12.9	ND	ND	30	ND	30	ND
TSP-67	500	2/21/2017	2/22/2017	10.4	ND	ND	39	ND	39	ND
TSP-68	500	2/21/2017	2/22/2017	10.8	ND	ND	45	ND	45	ND
TSP-69	500	2/21/2017	2/22/2017	8.4	ND	ND	34	ND	34	ND
TSP-70	500	2/22/2017	2/22/2017	5.5	ND	ND	67	75	142	ND
TSP-70R	Same	2/22/2017	2/24/2017	2.7	ND	ND	42	ND	42	ND
TSP-71	500	2/22/2017	2/23/2017	4.0	ND	ND	57	ND	57	ND
TSP-72	500	2/22/2017	2/23/2017	5.2	ND	ND	55	ND	55	ND
TSP-73	500	2/22/2017	2/23/2017	3.1	ND	ND	47	ND	47	ND
TSP-74	500	2/23/2017	2/23/2017	5.5	ND	ND	60	ND	60	ND
TSP-75	500	2/23/2017	2/23/2017	6.9	ND	ND	57	ND	57	ND
TSP-76	500	2/23/2017	2/23/2017	13.3	ND	ND	51	ND	51	ND
TSP-77	500	2/23/2017	2/23/2017	14.4	ND	ND	62	ND	62	ND
TSP-78	500	2/23/2017	2/23/2017	9.0	ND	ND	50	ND	50	ND
TSP-79	500	2/23/2017	2/23/2017	13.3	ND	ND	83	ND	83	ND
TSP-80	500	2/24/2017	2/24/2017	2.4	ND	ND	39	ND	39	ND
TSP-81	500	2/24/2017	2/24/2017	6.4	ND	ND	78	ND	78	ND
TSP-82	500	2/24/2017	2/24/2017	5.2	ND	ND	60	ND	60	ND
TSP-83	500	2/24/2017	2/24/2017	5.3	ND	ND	55	ND	55	ND
TSP-84	500	2/24/2017	2/24/2017	9.8	ND	8.6	74	ND	82.6	ND
TSP-85	500	2/24/2017	2/24/2017	11.4	ND	7.5	54	ND	61.5	ND
TSP-86	500	2/24/2017	2/24/2017	8.2	ND	7.5	42	ND	49.5	ND
TSP-87	500	2/25/2017	2/27/2017	1.9	ND	ND	24	ND	24	ND
TSP-88	500	2/25/2017	2/27/2017	2.1	ND	ND	28	ND	28	ND
TSP-89	500	2/25/2017	2/27/2017	4.3	ND	ND	23	ND	23	ND
TSP-90	500	2/25/2017	2/27/2017	8.8	ND	4.2	30	ND	34.2	ND
				Field		TPH	TPH	TPH	TPH	

Pile ID	Vol. (CY)	Date Created	Date Sampled	OVM (ppm)	BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)	Total (mg/Kg)	Chloride (mg/Kg)
TSP-91	500	2/27/2017	2/27/2017	8.2	ND	3.9	32	ND	35.9	ND
TSP-92	500	2/27/2017	3/7/2017	1.2	ND	ND	31	ND	31	ND
TSP-93	500	2/27/2017	3/7/2017	5.2	ND	ND	42	ND	42	ND
TSP-94	500	3/6/2017	3/7/2017	3.7	ND	ND	20	ND	20	ND
TSP-95	500	3/6/2017	3/7/2017	5.1	ND	3.5	34	ND	37.5	ND
TSP-96	500	3/6/2017	3/7/2017	4.9	ND	ND	22	ND	22	ND
TSP-97	500	3/6/2017	3/7/2017	4.2	ND	ND	26	ND	26	ND
TSP-98	500	3/6/2017	3/7/2017	4.6	ND	ND	23	ND	23	ND
TSP-99	500	3/7/2017	3/7/2017	6.1	ND	ND	33	ND	33	ND
TSP-100	500	3/7/2017	3/7/2017	6.2	ND	ND	36	ND	36	ND
TSP-101	500	3/7/2017	3/7/2017	5.6	ND	4.3	14	ND	18.3	ND
TSP-102	500	3/7/2017	3/7/2017	8.8	ND	ND	41	ND	41	ND
TSP-103	500	3/7/2017	3/7/2017	8.5	ND	4.9	19	ND	23.9	ND
TSP-104	500	3/7/2017	3/7/2017	12.7	ND	3.5	26	ND	29.5	ND
TSP-105	500	3/7/2017	3/8/2017	4.5	ND	16	19	ND	35	ND
TSP-106	500	3/8/2017	3/8/2017	8.0	ND	7.8	27	ND	34.8	ND
TSP-107	500	3/8/2017	3/8/2017	14.5	ND	9.7	22	ND	31.7	ND
TSP-108	500	3/8/2017	3/8/2017	13.6	ND	9.9	44	ND	53.9	ND
TSP-109	500	3/8/2017	3/8/2017	16.0	ND	7.3	20	ND	27.3	ND
TSP-110	500	3/8/2017	3/9/2017	14.9	ND	ND	22	ND	22	ND
TSP-111	500	3/10/2017	3/10/2017	10.2	ND	4.1	43	ND	47.1	ND
TSP-112	500	3/10/2017	3/10/2017	11.7	ND	ND	44	ND	44	ND
TSP-113	500	3/10/2017	3/10/2017	12.3	ND	ND	29	ND	29	ND
TSP-114	500	3/10/2017	3/10/2017	12.6	ND	4.8	45	ND	49.8	ND
TSP-115	500	3/10/2017	3/13/2017	17.1	ND	ND	160	61	221	ND
TSP-115R	SAME	3/10/2017	3/15/2017	31.1	ND	ND	97	ND	97	ND
TSP-116	500	3/10/2017	3/13/2017	9.4	ND	ND	29	ND	29	ND
TSP-117	500	3/10/2017	3/13/2017	11.0	ND	ND	51	ND	51	ND
TSP-118	500	3/10/2017	3/13/2017	12.3	ND	ND	120	49	169	ND
TSP-118R	SAME	3/10/2017	3/15/2017	32.4	ND	ND	63	ND	63	ND
TSP-119	500	3/11/2017	3/13/2017	11.6	ND	ND	68	ND	68	ND
TSP-120	500	3/11/2017	3/13/2017	11.4	ND	ND	22	ND	22	ND
TSP-121	500	3/11/2017	3/13/2017	5.0	ND	ND	49	ND	49	ND
TSP-122	500	3/11/2017	3/13/2017	4.9	ND	ND	33	ND	33	ND
TSP-123	500	3/11/2017	3/13/2017	5.5	ND	ND	66	ND	66	ND
TSP-124	500	3/11/2017	3/13/2017	6.4	ND	ND	32	ND	32	ND
TSP-125	500	3/11/2017	3/13/2017	13.8	ND	ND	78	ND	78	ND
TSP-126	500	3/13/2017	3/13/2017	17.8	ND	ND	32	ND	32	ND
TSP-127	500	3/13/2017	3/13/2017	14.3	ND	ND	55	ND	55	ND
TSP-128	1,000	3/13/2017	3/15/2017	20.0	ND	ND	66	ND	66	ND
TSP-129	1,000	3/13/2017	3/15/2017	18.2	ND	ND	63	ND	63	ND
TSP-130	1,000	3/14/2017	3/15/2017	18.4	ND	ND	91	ND	91	ND
TSP-131	1,000	3/14/2017	3/15/2017	29.0	ND	ND	120	ND	120	ND
TSP-131R-E	500	3/14/2017	3/17/2017	19.5	ND	ND	44	ND	44	ND
TSP-131R-W	500	3/14/2017	3/17/2017	33.0	ND	ND	65	ND	65	ND
TSP-132	1,000	3/14/2017	3/15/2017	68	ND	ND	100	ND	100	ND
TSP-133	1,000	3/14-15/2017	3/15/2017	56.6	ND	ND	120	ND	120	ND
TSP-133R-E	500	3/14/2017	3/17/2017	28.0	ND	ND	24	ND	24	ND
TSP-133R-W	500	3/15/2017	3/17/2017	34.4	ND	ND	68	ND	68	ND
TSP-134	1,000	3/15/2017	3/15/2017	32.4	ND	ND	85	ND	85	ND
TSP-135	1,000	3/20/2017	3/21/2017	43.6	ND	8.7	87	ND	95.7	ND
TSP-136	1,000	3/20/2017	3/21/2017	34.2	ND	9.6	98	ND	107.6	ND
TSP-136R-N	500	3/20/2017	3/22/2017	17.1	ND	ND	73	ND	73	ND
TSP-136R-S	500	3/20/2017	3/22/2017	26.5	ND	ND	120	55	175	ND
TSP-136R2-S	500	3/20/2017	3/27/2017	17.8	ND	ND	88	ND	88	ND
TSP-137	1,000	3/20/2017	3/21/2017	44.0	ND	6.7	44	ND	50.7	ND
				Field		TPH	TPH	TPH	TPH	

Pile ID	Vol. (CY)	Date Created	Date Sampled	OVM (ppm)	BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)	Total (mg/Kg)	Chloride (mg/Kg)
TSP-138	1,000	3/21/2017	3/22/2017	19.1	ND	ND	29	ND	29	ND
TSP-139	1,000	3/21/2017	3/22/2017	27.2	ND	ND	86	ND	86	ND
TSP-140	1,000	3/21/2017	3/22/2017	29.0	ND	ND	62	ND	62	ND
TSP-141	1,000	3/21/2017	3/22/2017	12.0	ND	ND	35	ND	35	ND
TSP-142	1,000	3/21/2017	3/22/2017	20.6	ND	ND	92	67	159	ND
TSP-142R-S	500	3/21/2017	3/27/2017	14.2	ND	ND	69	ND	69	ND
TSP-142R-N	500	3/21/2017	3/27/2017	18.6	ND	ND	60	ND	60	ND
TSP-143	1,000	3/22/2017	3/23/2017	9.6	ND	4.2	78	48	130.2	ND
TSP-143R-N	500	3/22/2017	3/27/2017	10.2	ND	ND	73	ND	73	ND
TSP-143R-S	500	3/22/2017	3/27/2017	12.0	ND	ND	47	ND	47	ND
TSP-144	1,000	3/22/2017	3/23/2017	14.3	ND	5.5	87	ND	92.5	ND
TSP-145	1,000	3/22/2017	3/23/2017	12.6	ND	6.6	73	56	135.6	ND
TSP-145R-N	500	3/22/2017	3/27/2017	7.0	ND	ND	48	ND	48	ND
TSP-145R-S	500	3/22/2017	3/27/2017	9.7	ND	ND	63	ND	63	ND
TSP-146	1,000	3/22/2017	3/23/2017	8.8	ND	ND	39	63	102	ND
TSP-146R-N	500	3/22/2017	3/27/2017	4.9	ND	ND	62	ND	62	ND
TSP-146R-S	500	3/22/2017	3/27/2017	3.3	ND	ND	52	ND	52	ND
TSP-147	1,000	3/22/2017	3/27/2017	6.3	ND	ND	49	ND	49	ND
TSP-148	1,000	3/23/2017	3/27/2017	11.1	ND	ND	48	ND	48	ND
TSP-149	1,000	3/23/2017	3/27/2017	7.0	ND	ND	49	ND	49	ND
TSP-150	1,000	3/23/2017	3/27/2017	12.9	ND	ND	84	ND	84	ND
TSP-151	1,000	3/23/2017	3/27/2017	11.6	ND	7.8	70	ND	77.8	ND
TSP-152	1,000	3/23/2017	3/27/2017	13.6	ND	ND	52	ND	52	ND
TSP-153	1,000	3/29/2017	3/30/2017	7.2	ND	4.3	62	ND	66.3	ND
TSP-154	1,000	3/29/2017	3/30/2017	8.5	ND	ND	27	ND	27	ND
TSP-155	1,000	3/29/2017	3/30/2017	11.9	ND	7.4	61	ND	68.4	ND
TSP-156	1,000	3/30/2017	4/3/2017	28.6	ND	ND	53	ND	53	ND
TSP-157	1,000	3/30/2017	4/3/2017	21.8	ND	ND	48	ND	48	ND
TSP-158	1,000	3/30/2017	4/3/2017	40.8	ND	ND	43	ND	43	ND
TSP-159	1,000	3/30/2017	4/3/2017	50.9	ND	ND	64	ND	64	ND
TSP-160	1,000	3/30/2017	4/3/2017	57.8	ND	ND	67	ND	67	ND
TSP-161	1,000	4/3/2017	4/4/2017	2.3	ND	ND	16	ND	16	ND
TSP-162	1,000	4/3/2017	4/4/2017	2.0	ND	ND	13	ND	13	ND
TSP-163	1,000	4/3/2017	4/4/2017	1.1	ND	ND	17	ND	17	ND
TSP-164	1,000	4/3/2017	4/4/2017	7.4	ND	ND	32	ND	32	ND
TSP-165	1,000	4/5/2017	4/6/2017	5.0	ND	ND	28	ND	28	ND
TSP-166	1,000	4/5/2017	4/6/2017	10.5	ND	ND	30	ND	30	ND
TSP-167	1,000	4/5/2017	4/6/2017	4.1	ND	ND	34	ND	34	ND
TSP-168	1,000	4/5/2017	4/6/2017	14.8	ND	ND	26	ND	26	ND
TSP-169	1,000	4/5/2017	4/6/2017	4.4	ND	ND	35	ND	35	ND
TSP-170	1,000	4/6/2017	4/7/2017	6.6	ND	ND	31	ND	31	ND
TSP-171	1,000	4/6/2017	4/7/2017	7.8	ND	ND	32	ND	32	ND
TSP-172	1,000	4/6/2017	4/7/2017	10.4	ND	ND	41	ND	41	ND
TSP-173	1,000	4/6/2017	4/7/2017	8.4	ND	ND	46	ND	46	ND
TSP-174	1,000	4/6/2017	4/7/2017	12.3	ND	5.5	41	ND	46.5	ND
TSP-175	1,000	4/7/2017	4/7/2017	15.2	ND	ND	46	ND	46	ND
TSP-176	1,000	4/7/2017	4/7/2017	10.2	ND	ND	38	ND	38	ND
TSP-177	1,000	4/7/2017	4/7/2017	11.4	ND	ND	27	ND	27	ND
TSP-178	1,000	4/11/2017	4/20/2017	0.3	ND	ND	17	ND	17	ND
TSP-179	500	4/11/2017	4/20/2017	1.3	ND	ND	23	ND	23	ND
TSP-180	1,000	4/20/2017	4/21/2017	0.7	ND	ND	30	ND	30	ND
TSP-181	1,000	4/20/2017	4/21/2017	1.7	ND	ND	29	ND	29	ND
TSP-182	1,000	4/20/2017	4/21/2017	1.8	ND	ND	ND	ND	ND	ND
TSP-183	1,000	4/21/2017	4/24/2017	1.6	ND	ND	19	ND	19	ND
TSP-184	1,000	4/21/2017	4/24/2017	2.2	ND	ND	18	ND	18	ND
TSP-185	1,000	4/24/2017	4/25/2017	1.7	ND	ND	32	ND	32	ND
TSP-186	1,000	4/24/2017	4/25/2017	3.0	ND	ND	34	ND	34	ND
				Field		TPH	TPH	TPH	TPH	



**TABLE 3**  
**Florance GC J 16A**  
**Summary Temporary Use Area Closure Analytical Data**

Sample ID	Date	BTEX (mg/Kg)	Benzene (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH Total (mg/Kg)	Chloride
TUA – VZ 1	5/1/2017	ND	ND	ND	30	ND	30	ND
TUA – VZ 2	5/1/2017	ND	ND	ND	39	50	89	ND
TUA – VZ 3	5/1/2017	ND	ND	ND	62	ND	62	ND
TUA – VZ 4	5/1/2017	ND	ND	ND	39	ND	39	ND
TUA – VZ 5	5/1/2017	ND	ND	ND	36	ND	36	ND
TUA – VZ 6	5/1/2017	ND	ND	ND	39	ND	39	ND
TUA – VZ 7	5/1/2017	ND	ND	ND	57	ND	57	ND
NMOCD Closure Standard		50	10				100	600

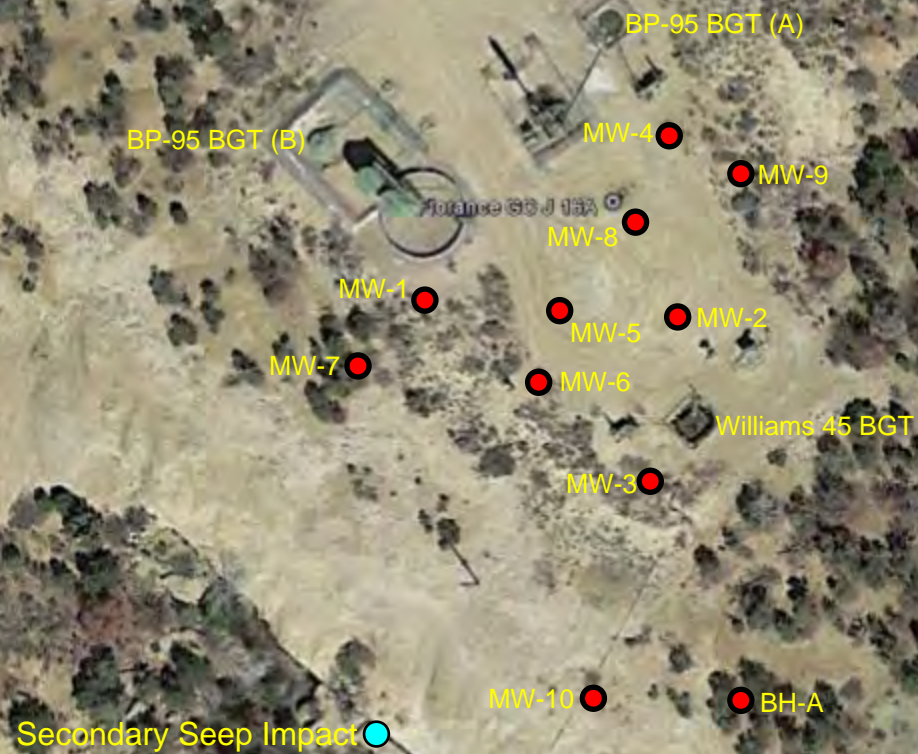
ND = Not Detected

## FIGURES



Florance GC J 16A

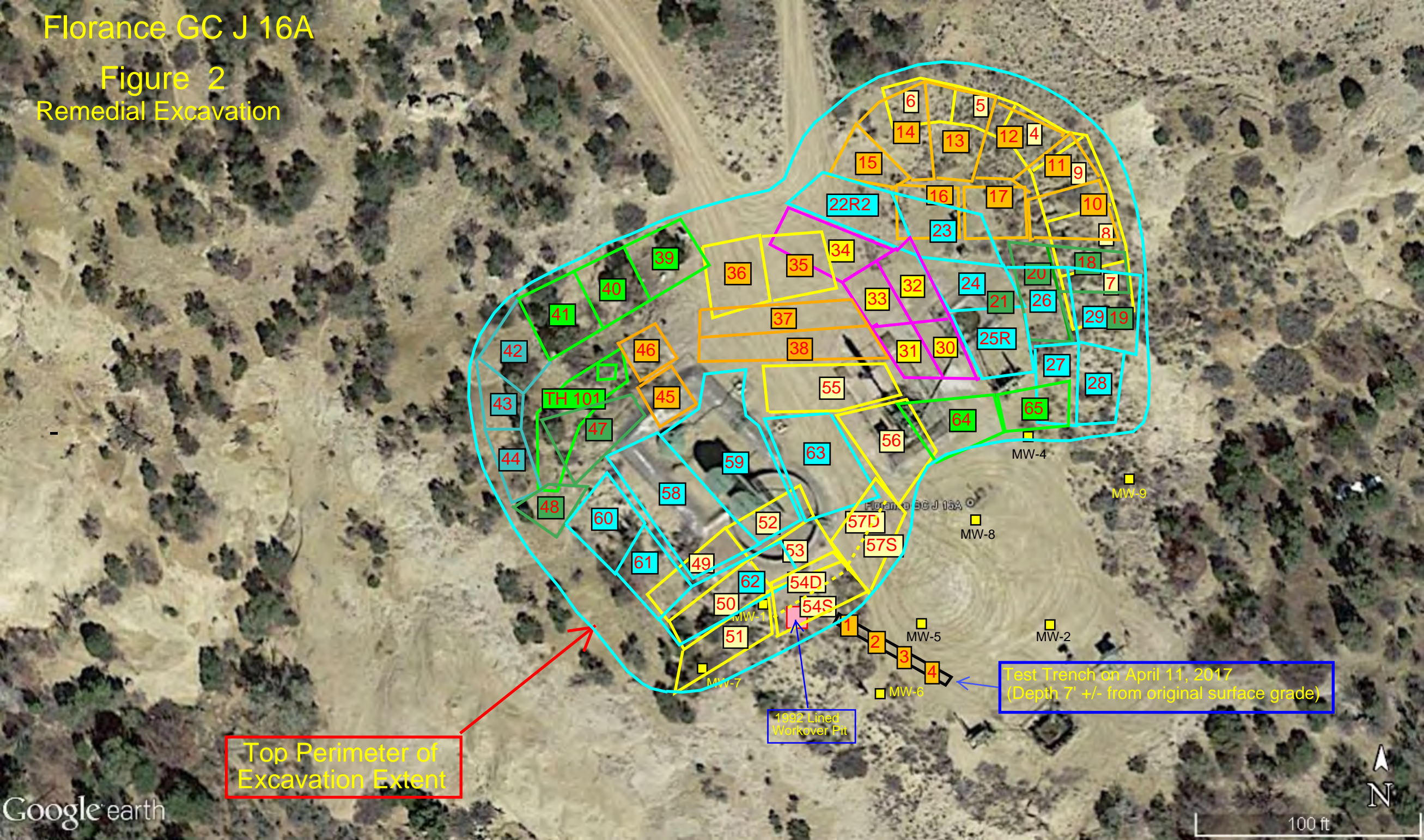
# Figure 1 Site Map



Concrete Seep Trap



Figure 2  
Remedial Excavation



Top Perimeter of  
Excavation Extent

1992 Lined  
Workover Pit

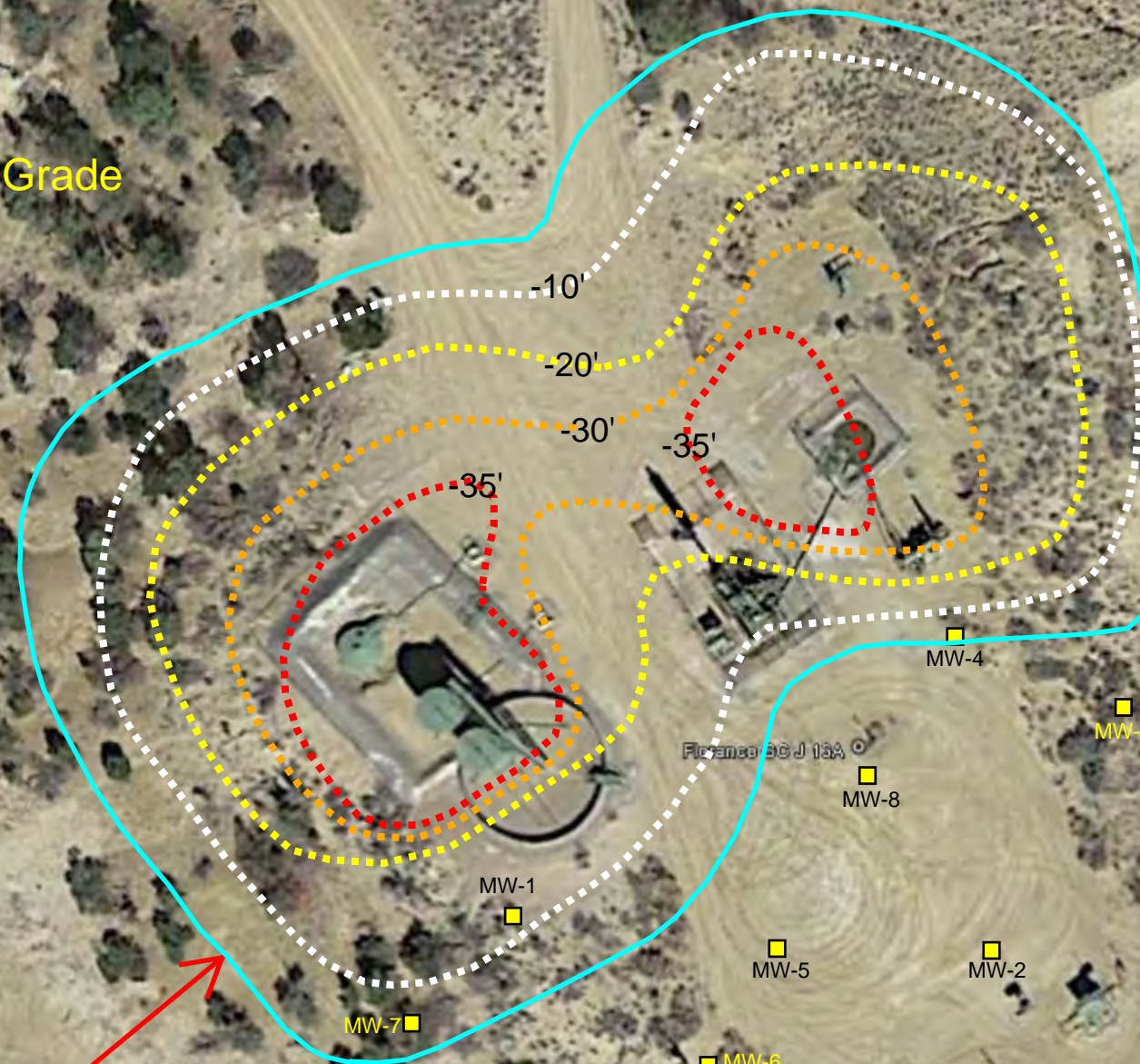
Test Trench on April 11, 2017  
(Depth 7' +/- from original surface grade)



# Florance GC J 16A

## Figure 3

Remedial Excavation  
Contour of Excavation Depth  
from Approximate Original Well Pad Grade

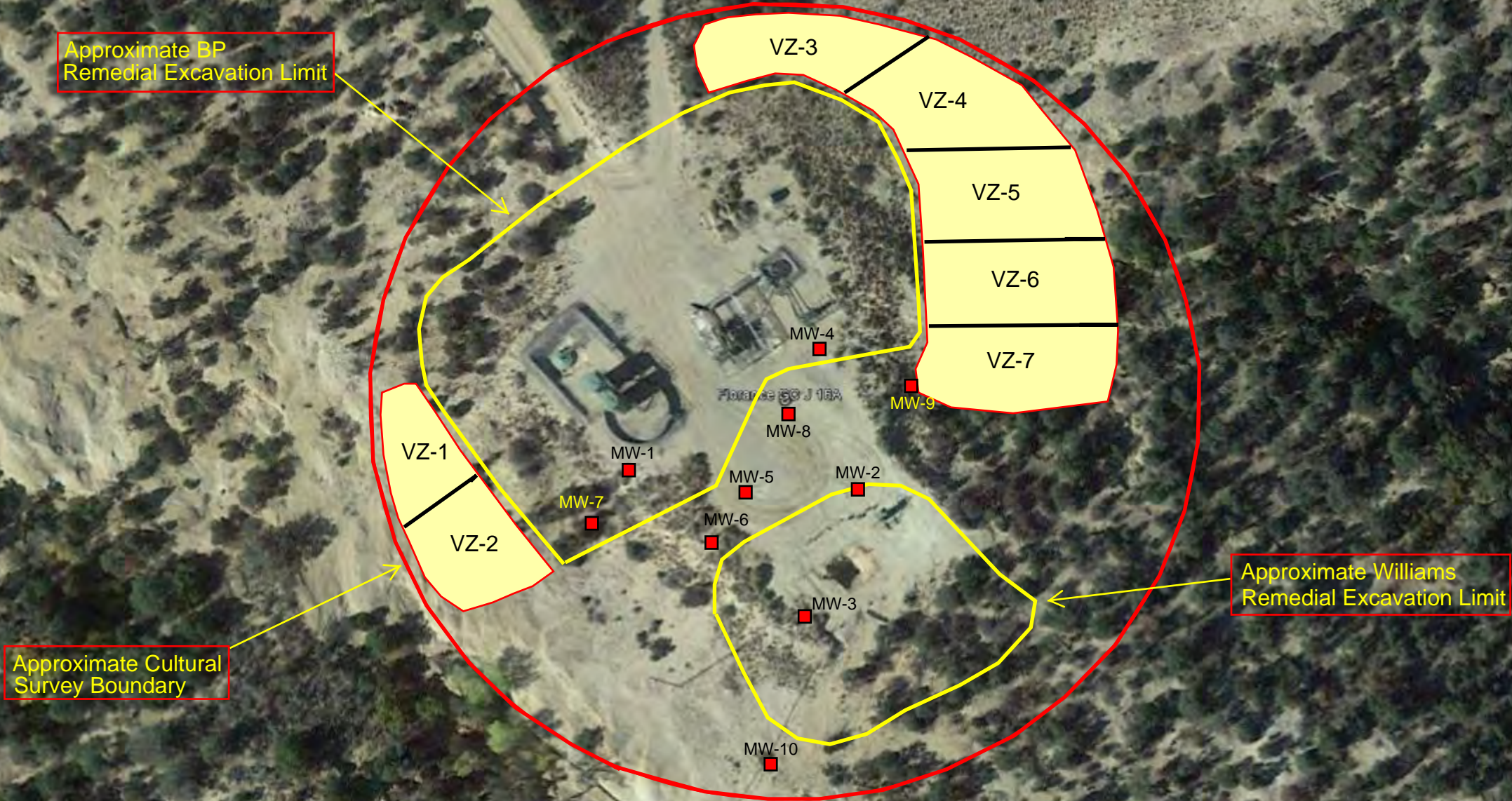


Top Perimeter of  
Excavation Extent



Florance GC J 16A  
Figure 4

Temporary Use Area  
Vadose Zone Sampling





## Appendix B

### Excavation Closure Laboratory Analytical Data Reports



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

January 13, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701446

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/12/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701446**

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 1 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 10:50:00 AM

**Lab ID:** 1701446-001

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 11:17:13 AM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	200	9.6		mg/Kg	1	1/12/2017 10:26:04 AM	29658
Motor Oil Range Organics (MRO)	54	48		mg/Kg	1	1/12/2017 10:26:04 AM	29658
Surr: DNOP	97.2	70-130		%Rec	1	1/12/2017 10:26:04 AM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5.0	3.8		mg/Kg	1	1/12/2017 9:54:28 AM	G39980
Surr: BFB	149	68.3-144	S	%Rec	1	1/12/2017 9:54:28 AM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	1/12/2017 9:54:28 AM	29643
Toluene	ND	0.038		mg/Kg	1	1/12/2017 9:54:28 AM	29643
Ethylbenzene	ND	0.038		mg/Kg	1	1/12/2017 9:54:28 AM	29643
Xylenes, Total	ND	0.076		mg/Kg	1	1/12/2017 9:54:28 AM	29643
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	1/12/2017 9:54:28 AM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701446

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 2 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 10:54:00 AM

**Lab ID:** 1701446-002

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 11:29:38 AM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1500	20		mg/Kg	2	1/12/2017 12:57:08 PM	29658
Motor Oil Range Organics (MRO)	250	99		mg/Kg	2	1/12/2017 12:57:08 PM	29658
Surr: DNOP	112	70-130		%Rec	2	1/12/2017 12:57:08 PM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	42	18		mg/Kg	5	1/12/2017 12:16:05 PM	G39980
Surr: BFB	203	68.3-144	S	%Rec	5	1/12/2017 12:16:05 PM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	1/12/2017 12:16:05 PM	29643
Toluene	ND	0.18		mg/Kg	5	1/12/2017 12:16:05 PM	29643
Ethylbenzene	ND	0.18		mg/Kg	5	1/12/2017 12:16:05 PM	29643
Xylenes, Total	ND	0.36		mg/Kg	5	1/12/2017 12:16:05 PM	29643
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	5	1/12/2017 12:16:05 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701446**

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 3 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 10:58:00 AM

**Lab ID:** 1701446-003

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 11:42:02 AM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	990	49		mg/Kg	5	1/12/2017 1:18:39 PM	29658
Motor Oil Range Organics (MRO)	450	240		mg/Kg	5	1/12/2017 1:18:39 PM	29658
Surr: DNOP	107	70-130		%Rec	5	1/12/2017 1:18:39 PM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	42	18		mg/Kg	5	1/12/2017 10:41:34 AM	G39980
Surr: BFB	186	68.3-144	S	%Rec	5	1/12/2017 10:41:34 AM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	1/12/2017 10:41:34 AM	29643
Toluene	ND	0.18		mg/Kg	5	1/12/2017 10:41:34 AM	29643
Ethylbenzene	ND	0.18		mg/Kg	5	1/12/2017 10:41:34 AM	29643
Xylenes, Total	ND	0.37		mg/Kg	5	1/12/2017 10:41:34 AM	29643
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	1/12/2017 10:41:34 AM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701446**

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 4 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 11:02:00 AM

**Lab ID:** 1701446-004

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 11:54:27 AM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	66	9.2		mg/Kg	1	1/12/2017 11:52:36 AM	29658
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/12/2017 11:52:36 AM	29658
Surr: DNOP	97.2	70-130		%Rec	1	1/12/2017 11:52:36 AM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/12/2017 11:05:10 AM	G39980
Surr: BFB	93.9	68.3-144		%Rec	1	1/12/2017 11:05:10 AM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	1/12/2017 11:05:10 AM	29643
Toluene	ND	0.038		mg/Kg	1	1/12/2017 11:05:10 AM	29643
Ethylbenzene	ND	0.038		mg/Kg	1	1/12/2017 11:05:10 AM	29643
Xylenes, Total	ND	0.077		mg/Kg	1	1/12/2017 11:05:10 AM	29643
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	1/12/2017 11:05:10 AM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701446

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 5 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 11:06:00 AM

**Lab ID:** 1701446-005

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 12:06:52 PM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	9.8	9.7		mg/Kg	1	1/12/2017 12:14:04 PM	29658
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/12/2017 12:14:04 PM	29658
Surr: DNOP	96.6	70-130		%Rec	1	1/12/2017 12:14:04 PM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/12/2017 11:28:48 AM	G39980
Surr: BFB	86.4	68.3-144		%Rec	1	1/12/2017 11:28:48 AM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	1/12/2017 11:28:48 AM	29643
Toluene	ND	0.037		mg/Kg	1	1/12/2017 11:28:48 AM	29643
Ethylbenzene	ND	0.037		mg/Kg	1	1/12/2017 11:28:48 AM	29643
Xylenes, Total	ND	0.073		mg/Kg	1	1/12/2017 11:28:48 AM	29643
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	1/12/2017 11:28:48 AM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701446

Date Reported: 1/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 6 - Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 11:09:00 AM

**Lab ID:** 1701446-006

**Matrix:** MEOH (SOIL)

**Received Date:** 1/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/12/2017 12:19:16 PM	29661
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	1/12/2017 12:35:41 PM	29658
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/12/2017 12:35:41 PM	29658
Surr: DNOP	96.0	70-130		%Rec	1	1/12/2017 12:35:41 PM	29658
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	1/12/2017 11:52:26 AM	G39980
Surr: BFB	88.5	68.3-144		%Rec	5	1/12/2017 11:52:26 AM	G39980
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.094		mg/Kg	5	1/12/2017 11:52:26 AM	29643
Toluene	ND	0.19		mg/Kg	5	1/12/2017 11:52:26 AM	29643
Ethylbenzene	ND	0.19		mg/Kg	5	1/12/2017 11:52:26 AM	29643
Xylenes, Total	ND	0.38		mg/Kg	5	1/12/2017 11:52:26 AM	29643
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	5	1/12/2017 11:52:26 AM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701446

13-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29661		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29661		RunNo:	39991				
Prep Date:	1/12/2017		Analysis Date:	1/12/2017		SeqNo:	1253152		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29661		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29661		RunNo: 39991					
Prep Date:	1/12/2017		Analysis Date: 1/12/2017		SeqNo: 1253153		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.3	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701446

13-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29658		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29658		RunNo: 39973					
Prep Date:	1/12/2017		Analysis Date: 1/12/2017		SeqNo: 1252701		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.1	70	130			

Sample ID	LCS-29658		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29658		RunNo: 39973					
Prep Date:	1/12/2017		Analysis Date: 1/12/2017		SeqNo: 1252763		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	93.2	63.8	116			
Surr: DNOP	4.5		5.000		89.2	70	130			

Sample ID	1701446-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	1 - Shallow Wall		Batch ID: 29658		RunNo: 39973					
Prep Date:	1/12/2017		Analysis Date: 1/12/2017		SeqNo: 1252899		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	240	9.9	49.31	201.7	79.1	51.6	130			
Surr: DNOP	4.9		4.931		99.9	70	130			

Sample ID	1701446-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	1 - Shallow Wall		Batch ID:	29658		RunNo:	39973				
Prep Date:	1/12/2017		Analysis Date:	1/12/2017		SeqNo:	1252911		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	260	10	50.40	201.7	109	51.6	130	6.39	20		
Surr: DNOP	5.0		5.040		100	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701446

13-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G39980	RunNo:	39980					
Prep Date:		Analysis Date:	1/12/2017	SeqNo:	1253015	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	880		1000		87.5	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G39980	RunNo:	39980					
Prep Date:		Analysis Date:	1/12/2017	SeqNo:	1253017	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	74.6	123			
Surr: BFB	970		1000		96.9	68.3	144			

Sample ID	1701446-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	1 - Shallow Wall	Batch ID:	G39980	RunNo:	39980					
Prep Date:		Analysis Date:	1/12/2017	SeqNo:	1253020	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	3.8	19.01	4.981	127	61.3	150			
Surr: BFB	1300		760.5		173	68.3	144			S

Sample ID	1701446-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	1 - Shallow Wall	Batch ID:	G39980	RunNo:	39980					
Prep Date:		Analysis Date:	1/12/2017	SeqNo:	1253021	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	3.8	19.01	4.981	126	61.3	150	0.367	20	
Surr: BFB	1300		760.5		177	68.3	144	0	0	S

Sample ID	MB-29643	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	29643	RunNo:	39980					
Prep Date:	1/11/2017	Analysis Date:	1/12/2017	SeqNo:	1253022	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		85.7	68.3	144			

Sample ID	LCS-29643	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	29643	RunNo:	39980					
Prep Date:	1/11/2017	Analysis Date:	1/12/2017	SeqNo:	1253023	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.3	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701446

13-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29643		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253047		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	80	120			

Sample ID	LCS-29643		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253048		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	112	75.2	115			
Toluene	1.0	0.050	1.000	0	104	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.9	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	98.3	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified





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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1701446

RcptNo: 1

Received by/date: AS 1/12/17

Logged By: Andy Jansson

1/12/2017 7:00:00 AM

Completed By:

Andy Jansson 1/12/17

Reviewed By:

01/12/17

### Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☐

No ☐

Not Present ☒

Yes ☒

No ☐

Not Present ☐

Courier

### Log In

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

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☐

No ☒

NA ☐

Yes ☐

No ☐

No VOA Vials ☒

Yes ☐

No ☒

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

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: \_\_\_\_\_

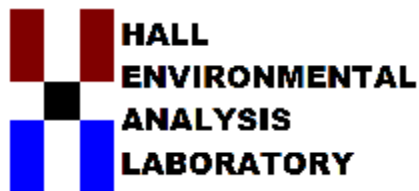
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			





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

January 17, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701591

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/14/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701591

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 7-Extended East Shallow Well

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:24:00 PM

**Lab ID:** 1701591-001

**Matrix:** MEOH (SOIL)

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 10:47:53 AM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/16/2017 10:28:14 AM	29698
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/16/2017 10:28:14 AM	29698
Surr: DNOP	109	70-130		%Rec	1	1/16/2017 10:28:14 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/16/2017 10:55:05 AM	G40040
Surr: BFB	113	68.3-144		%Rec	1	1/16/2017 10:55:05 AM	G40040
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	1/16/2017 10:55:05 AM	B40040
Toluene	ND	0.036		mg/Kg	1	1/16/2017 10:55:05 AM	B40040
Ethylbenzene	ND	0.036		mg/Kg	1	1/16/2017 10:55:05 AM	B40040
Xylenes, Total	ND	0.073		mg/Kg	1	1/16/2017 10:55:05 AM	B40040
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	1/16/2017 10:55:05 AM	B40040

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701591**

Date Reported: **1/17/2017**

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701591-002

**Client Sample ID:** 8-Extended East Shallow Wall

**Collection Date:** 1/13/2017 1:28:00 PM

**Matrix:** MEOH (SOIL) **Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 11:00:17 AM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2017 10:55:43 AM	29698
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/16/2017 10:55:43 AM	29698
Surr: DNOP	109	70-130		%Rec	1	1/16/2017 10:55:43 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/16/2017 11:18:39 AM	G40040
Surr: BFB	94.2	68.3-144		%Rec	1	1/16/2017 11:18:39 AM	G40040
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	1/16/2017 11:18:39 AM	B40040
Toluene	ND	0.036		mg/Kg	1	1/16/2017 11:18:39 AM	B40040
Ethylbenzene	ND	0.036		mg/Kg	1	1/16/2017 11:18:39 AM	B40040
Xylenes, Total	ND	0.072		mg/Kg	1	1/16/2017 11:18:39 AM	B40040
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	1/16/2017 11:18:39 AM	B40040

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701591**

Date Reported: **1/17/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 9-Extended East Shallow Wall

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:34:00 PM

**Lab ID:** 1701591-003

**Matrix:** MEOH (SOIL)

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 11:12:42 AM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	10	9.5		mg/Kg	1	1/16/2017 11:23:20 AM	29698
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 11:23:20 AM	29698
Surr: DNOP	109	70-130		%Rec	1	1/16/2017 11:23:20 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/16/2017 11:42:14 AM	G40040
Surr: BFB	89.8	68.3-144		%Rec	1	1/16/2017 11:42:14 AM	G40040
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	1/16/2017 11:42:14 AM	B40040
Toluene	ND	0.037		mg/Kg	1	1/16/2017 11:42:14 AM	B40040
Ethylbenzene	ND	0.037		mg/Kg	1	1/16/2017 11:42:14 AM	B40040
Xylenes, Total	ND	0.074		mg/Kg	1	1/16/2017 11:42:14 AM	B40040
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	1/16/2017 11:42:14 AM	B40040

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701591

17-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29704		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29704		RunNo:	40057				
Prep Date:	1/16/2017		Analysis Date:	1/16/2017		SeqNo:	1255351		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29704		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29704		RunNo: 40057					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1255352		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701591

17-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29698		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29698		RunNo: 40028					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1254640		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	94.3	63.8	116			
Surr: DNOP	4.6		5.000		91.2	70	130			

Sample ID	MB-29698		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29698		RunNo: 40028					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1254641		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		95.0	70	130			

Sample ID	MB-29674		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254788		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29674		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254824		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701591

17-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254956	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	860		1000		86.4	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254957	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	74.6	123			
Surr: BFB	1000		1000		99.8	68.3	144			

Sample ID	1701591-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	7-Extended East Sh	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254958	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.6	18.20	1.557	97.2	61.3	150			
Surr: BFB	700		727.8		95.6	68.3	144			

Sample ID	1701591-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	7-Extended East Sh	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254959	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.6	18.20	1.557	98.4	61.3	150	1.09	20	
Surr: BFB	690		727.8		94.7	68.3	144	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701591

17-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B40040</b>		RunNo: <b>40040</b>							
Prep Date:	Analysis Date: <b>1/16/2017</b>		SeqNo: <b>1254972</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	80	120			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B40040</b>		RunNo: <b>40040</b>							
Prep Date:	Analysis Date: <b>1/16/2017</b>		SeqNo: <b>1254973</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	75.2	115			
Toluene	0.97	0.050	1.000	0	96.9	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	94.3	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	93.9	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID <b>1701591-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>8-Extended East Sh</b>	Batch ID: <b>B40040</b>		RunNo: <b>40040</b>							
Prep Date:	Analysis Date: <b>1/16/2017</b>		SeqNo: <b>1254974</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.018	0.7153	0	109	61.5	138			
Toluene	0.71	0.036	0.7153	0	99.3	71.4	127			
Ethylbenzene	0.67	0.036	0.7153	0	93.7	70.9	132			
Xylenes, Total	2.0	0.072	2.146	0	93.0	76.2	123			
Surr: 4-Bromofluorobenzene	0.73		0.7153		101	80	120			

Sample ID <b>1701591-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>8-Extended East Sh</b>	Batch ID: <b>B40040</b>		RunNo: <b>40040</b>							
Prep Date:	Analysis Date: <b>1/16/2017</b>		SeqNo: <b>1254975</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.018	0.7153	0	105	61.5	138	3.61	20	
Toluene	0.69	0.036	0.7153	0	96.9	71.4	127	2.41	20	
Ethylbenzene	0.66	0.036	0.7153	0	92.5	70.9	132	1.29	20	
Xylenes, Total	2.0	0.072	2.146	0	93.0	76.2	123	0.0903	20	
Surr: 4-Bromofluorobenzene	0.72		0.7153		101	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701591**

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>01/14/17</i>
Logged By:	<b>Lindsay Mangin</b>	<b>1/14/2017 9:00:00 AM</b>
Completed By:	<b>Lindsay Mangin</b>	<b>1/14/2017 10:15:00 AM</b>
Reviewed By:	<i>aj</i>	<i>1/16/17</i>

## Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

## Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

- Additional remarks:

## 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			





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

January 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701926

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 1/21/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701926

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 10-Base 5-pt @ 20'

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 12:56:00 PM

**Lab ID:** 1701926-001

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 9:58:25 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/21/2017 3:26:01 PM	C40186
Surr: BFB	95.5	70-130		%Rec	1	1/21/2017 3:26:01 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/23/2017 10:34:51 AM	29817
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/23/2017 10:34:51 AM	29817
Surr: DNOP	102	70-130		%Rec	1	1/23/2017 10:34:51 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	1/21/2017 3:26:01 PM	A40186
Toluene	ND	0.038		mg/Kg	1	1/21/2017 3:26:01 PM	A40186
Ethylbenzene	ND	0.038		mg/Kg	1	1/21/2017 3:26:01 PM	A40186
Xylenes, Total	ND	0.075		mg/Kg	1	1/21/2017 3:26:01 PM	A40186
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	1/21/2017 3:26:01 PM	A40186
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	1/21/2017 3:26:01 PM	A40186
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	1/21/2017 3:26:01 PM	A40186
Surr: Toluene-d8	103	70-130		%Rec	1	1/21/2017 3:26:01 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701926**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 11-Base 5-pt @ 20'

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 12:59:00 PM

**Lab ID:** 1701926-002

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:10:50 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	1/21/2017 3:55:14 PM	C40186
Surr: BFB	96.1	70-130		%Rec	1	1/21/2017 3:55:14 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/23/2017 10:56:25 AM	29817
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/23/2017 10:56:25 AM	29817
Surr: DNOP	102	70-130		%Rec	1	1/23/2017 10:56:25 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/21/2017 3:55:14 PM	A40186
Toluene	ND	0.035		mg/Kg	1	1/21/2017 3:55:14 PM	A40186
Ethylbenzene	ND	0.035		mg/Kg	1	1/21/2017 3:55:14 PM	A40186
Xylenes, Total	ND	0.070		mg/Kg	1	1/21/2017 3:55:14 PM	A40186
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%Rec	1	1/21/2017 3:55:14 PM	A40186
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/21/2017 3:55:14 PM	A40186
Surr: Dibromofluoromethane	94.5	70-130		%Rec	1	1/21/2017 3:55:14 PM	A40186
Surr: Toluene-d8	103	70-130		%Rec	1	1/21/2017 3:55:14 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701926**Date Reported: **1/24/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 12-Sidewall 5-pt**Project:** Florance GC J 16A**Collection Date:** 1/20/2017 1:04:00 PM**Lab ID:** 1701926-003**Matrix:** MEOH (SOIL)**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:23:14 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/21/2017 4:24:25 PM	C40186
Surr: BFB	94.7	70-130		%Rec	1	1/21/2017 4:24:25 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/23/2017 11:17:53 AM	29817
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/23/2017 11:17:53 AM	29817
Surr: DNOP	102	70-130		%Rec	1	1/23/2017 11:17:53 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	1/21/2017 4:24:25 PM	A40186
Toluene	ND	0.038		mg/Kg	1	1/21/2017 4:24:25 PM	A40186
Ethylbenzene	ND	0.038		mg/Kg	1	1/21/2017 4:24:25 PM	A40186
Xylenes, Total	ND	0.076		mg/Kg	1	1/21/2017 4:24:25 PM	A40186
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%Rec	1	1/21/2017 4:24:25 PM	A40186
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	1/21/2017 4:24:25 PM	A40186
Surr: Dibromofluoromethane	93.7	70-130		%Rec	1	1/21/2017 4:24:25 PM	A40186
Surr: Toluene-d8	102	70-130		%Rec	1	1/21/2017 4:24:25 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701926

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 13-Sidewall 5-pt

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:08:00 PM

**Lab ID:** 1701926-004

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:35:39 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/21/2017 4:53:34 PM	C40186
Surr: BFB	93.9	70-130		%Rec	1	1/21/2017 4:53:34 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/23/2017 11:39:41 AM	29817
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/23/2017 11:39:41 AM	29817
Surr: DNOP	103	70-130		%Rec	1	1/23/2017 11:39:41 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/21/2017 4:53:34 PM	A40186
Toluene	ND	0.037		mg/Kg	1	1/21/2017 4:53:34 PM	A40186
Ethylbenzene	ND	0.037		mg/Kg	1	1/21/2017 4:53:34 PM	A40186
Xylenes, Total	ND	0.074		mg/Kg	1	1/21/2017 4:53:34 PM	A40186
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%Rec	1	1/21/2017 4:53:34 PM	A40186
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	1/21/2017 4:53:34 PM	A40186
Surr: Dibromofluoromethane	90.5	70-130		%Rec	1	1/21/2017 4:53:34 PM	A40186
Surr: Toluene-d8	103	70-130		%Rec	1	1/21/2017 4:53:34 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701926

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 14-Sidewall 5-pt

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:13:00 PM

**Lab ID:** 1701926-005

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:48:04 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	1/21/2017 5:22:38 PM	C40186
Surr: BFB	101	70-130		%Rec	1	1/21/2017 5:22:38 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/23/2017 12:01:08 PM	29817
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/23/2017 12:01:08 PM	29817
Surr: DNOP	101	70-130		%Rec	1	1/23/2017 12:01:08 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	1/21/2017 5:22:38 PM	A40186
Toluene	ND	0.035		mg/Kg	1	1/21/2017 5:22:38 PM	A40186
Ethylbenzene	ND	0.035		mg/Kg	1	1/21/2017 5:22:38 PM	A40186
Xylenes, Total	ND	0.069		mg/Kg	1	1/21/2017 5:22:38 PM	A40186
Surr: 1,2-Dichloroethane-d4	88.8	70-130		%Rec	1	1/21/2017 5:22:38 PM	A40186
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	1/21/2017 5:22:38 PM	A40186
Surr: Dibromofluoromethane	90.3	70-130		%Rec	1	1/21/2017 5:22:38 PM	A40186
Surr: Toluene-d8	106	70-130		%Rec	1	1/21/2017 5:22:38 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701926**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 15-Sidewall 5-pt

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:18:00 PM

**Lab ID:** 1701926-006

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:00:28 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/21/2017 5:51:38 PM	C40186
Surr: BFB	93.8	70-130		%Rec	1	1/21/2017 5:51:38 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/23/2017 12:22:54 PM	29817
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/23/2017 12:22:54 PM	29817
Surr: DNOP	104	70-130		%Rec	1	1/23/2017 12:22:54 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/21/2017 5:51:38 PM	A40186
Toluene	ND	0.036		mg/Kg	1	1/21/2017 5:51:38 PM	A40186
Ethylbenzene	ND	0.036		mg/Kg	1	1/21/2017 5:51:38 PM	A40186
Xylenes, Total	ND	0.073		mg/Kg	1	1/21/2017 5:51:38 PM	A40186
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%Rec	1	1/21/2017 5:51:38 PM	A40186
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	1/21/2017 5:51:38 PM	A40186
Surr: Dibromofluoromethane	90.4	70-130		%Rec	1	1/21/2017 5:51:38 PM	A40186
Surr: Toluene-d8	105	70-130		%Rec	1	1/21/2017 5:51:38 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701926

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 16-Base 5-pt @ 22'

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:29:00 PM

**Lab ID:** 1701926-007

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:12:53 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	1/21/2017 6:20:35 PM	C40186
Surr: BFB	98.2	70-130		%Rec	1	1/21/2017 6:20:35 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/23/2017 12:44:33 PM	29817
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/23/2017 12:44:33 PM	29817
Surr: DNOP	103	70-130		%Rec	1	1/23/2017 12:44:33 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	1/21/2017 6:20:35 PM	A40186
Toluene	ND	0.035		mg/Kg	1	1/21/2017 6:20:35 PM	A40186
Ethylbenzene	ND	0.035		mg/Kg	1	1/21/2017 6:20:35 PM	A40186
Xylenes, Total	ND	0.069		mg/Kg	1	1/21/2017 6:20:35 PM	A40186
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%Rec	1	1/21/2017 6:20:35 PM	A40186
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	1/21/2017 6:20:35 PM	A40186
Surr: Dibromofluoromethane	93.3	70-130		%Rec	1	1/21/2017 6:20:35 PM	A40186
Surr: Toluene-d8	106	70-130		%Rec	1	1/21/2017 6:20:35 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701926**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 17-Base 5-pt @ 22'

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:33:00 PM

**Lab ID:** 1701926-008

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:50:06 AM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/21/2017 6:49:31 PM	C40186
Surr: BFB	96.0	70-130		%Rec	1	1/21/2017 6:49:31 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/23/2017 1:06:17 PM	29817
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/23/2017 1:06:17 PM	29817
Surr: DNOP	103	70-130		%Rec	1	1/23/2017 1:06:17 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	1/21/2017 6:49:31 PM	A40186
Toluene	ND	0.038		mg/Kg	1	1/21/2017 6:49:31 PM	A40186
Ethylbenzene	ND	0.038		mg/Kg	1	1/21/2017 6:49:31 PM	A40186
Xylenes, Total	ND	0.076		mg/Kg	1	1/21/2017 6:49:31 PM	A40186
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	1/21/2017 6:49:31 PM	A40186
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	1/21/2017 6:49:31 PM	A40186
Surr: Dibromofluoromethane	89.1	70-130		%Rec	1	1/21/2017 6:49:31 PM	A40186
Surr: Toluene-d8	102	70-130		%Rec	1	1/21/2017 6:49:31 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701926

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** A-Sidewall 5-pt

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 1:22:00 PM

**Lab ID:** 1701926-009

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 12:02:31 PM	29827
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	670	20		mg/Kg	5	1/21/2017 7:18:27 PM	C40186
Surr: BFB	116	70-130		%Rec	5	1/21/2017 7:18:27 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	610	9.6		mg/Kg	1	1/23/2017 1:27:46 PM	29817
Motor Oil Range Organics (MRO)	110	48		mg/Kg	1	1/23/2017 1:27:46 PM	29817
Surr: DNOP	109	70-130		%Rec	1	1/23/2017 1:27:46 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.10		mg/Kg	5	1/21/2017 7:18:27 PM	A40186
Toluene	ND	0.20		mg/Kg	5	1/21/2017 7:18:27 PM	A40186
Ethylbenzene	0.98	0.20		mg/Kg	5	1/21/2017 7:18:27 PM	A40186
Xylenes, Total	11	0.40		mg/Kg	5	1/21/2017 7:18:27 PM	A40186
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	5	1/21/2017 7:18:27 PM	A40186
Surr: 4-Bromofluorobenzene	118	70-130		%Rec	5	1/21/2017 7:18:27 PM	A40186
Surr: Dibromofluoromethane	90.1	70-130		%Rec	5	1/21/2017 7:18:27 PM	A40186
Surr: Toluene-d8	101	70-130		%Rec	5	1/21/2017 7:18:27 PM	A40186

**BEI Note:** This sample informational only for BP to determine magnitude of known impacts. Subsequently excavated.

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701926

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29827		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29827		RunNo:	40232				
Prep Date:	1/23/2017		Analysis Date:	1/23/2017		SeqNo:	1261425		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29827		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29827		RunNo: 40232					
Prep Date:	1/23/2017		Analysis Date: 1/23/2017		SeqNo: 1261426		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.6	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701926

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29817		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29817		RunNo: 40199					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260281		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	98.5	63.8	116			
Surr: DNOP	5.0		5.000		99.5	70	130			

Sample ID	MB-29817		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29817		RunNo: 40199					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260282		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-29802		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29802		RunNo: 40200					
Prep Date:	1/20/2017		Analysis Date: 1/23/2017		SeqNo: 1261137		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.2	70	130			

Sample ID	MB-29802		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29802		RunNo: 40200					
Prep Date:	1/20/2017		Analysis Date: 1/23/2017		SeqNo: 1261138		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701926

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	A40186	RunNo:	40186					
Prep Date:		Analysis Date:	1/21/2017	SeqNo:	1259842	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.6	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	A40186	RunNo:	40186					
Prep Date:		Analysis Date:	1/21/2017	SeqNo:	1259843	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.5	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701926

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	C40186	RunNo:	40186					
Prep Date:		Analysis Date:	1/21/2017	SeqNo:	1259894	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	500		500.0		100	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	C40186	RunNo:	40186					
Prep Date:		Analysis Date:	1/21/2017	SeqNo:	1259895	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	104	62.9	123			
Surr: BFB	500		500.0		99.0	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701926**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

**1/21/2017 9:15:00 AM**

Completed By: **Lindsay Mangin**

**1/21/2017 9:31:30 AM**

Reviewed By: **DF 1/21/2017**

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	2.0	Good	Yes			

# Chain-of-Custody Record

Client: BP AMERICA Turn-Around Time: ASAP  
SAME DAY  
☐ Standard ☒ Rush  
 Project Name: FLORANCE GC J 16A  
 Project #: NE REMEDIATION AREA  
 Project Manager: J. BLAGG  
 Sampler: J. BLAGG  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: 20

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/17/2017	12:56	SOIL	10 - BASE 5-pt @ 20'	403 x 1	COOL	17401926
"	12:59	"	11 - BASE 5-pt @ 20'	"	"	-001
"	13:04	"	12 - SIDEWALK 5-pt	"	"	-002
"	13:08	"	13 - SIDEWALK 5-pt	"	"	-003
"	13:13	"	14 - SIDEWALK 5-pt	"	"	-004
"	13:18	"	15 - SIDEWALK 5-pt	"	"	-005
"	13:29	"	16 - BASE 5-pt @ 22'	"	"	-006
"	13:33	"	17 - BASE 5-pt @ 22'	"	"	-007
"	13:22	"	A - SIDEWALK 5-pt	"	"	-008

Relinquished by: J. Blagg Date: 12/17/2017 Time: 15:48  
 Relinquished by: [Signature] Date: 01/21/17 Time: 09:15  
 Received by: [Signature] Date: 12/17/2017 Time: 15:48  
 Received by: [Signature] Date: 01/21/17 Time: 09:15



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (8021)	TPH (Method 418.1)	TPH 8015B (GRO / DRO / MRO)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X

Remarks: Bill BP  
CONTACT: STEVE MASKAL  
VID: VHXONVEM



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

February 21, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702782

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/17/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702782**Date Reported: **2/21/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 18-East Wall (14'-24')**Project:** Florance GC J 16A**Collection Date:** 2/16/2017 3:08:00 PM**Lab ID:** 1702782-001**Matrix:** MEOH (SOIL)**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 10:52:13 AM	30276
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	2/17/2017 10:57:53 AM	G40826
Surr: BFB	92.6	70-130		%Rec	5	2/17/2017 10:57:53 AM	G40826
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	44	9.1		mg/Kg	1	2/17/2017 10:50:00 AM	30267
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/17/2017 10:50:00 AM	30267
Surr: DNOP	91.5	70-130		%Rec	1	2/17/2017 10:50:00 AM	30267
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.095		mg/Kg	5	2/17/2017 10:57:53 AM	30160
Toluene	ND	0.19		mg/Kg	5	2/17/2017 10:57:53 AM	30160
Ethylbenzene	ND	0.19		mg/Kg	5	2/17/2017 10:57:53 AM	30160
Xylenes, Total	ND	0.38		mg/Kg	5	2/17/2017 10:57:53 AM	30160
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	5	2/17/2017 10:57:53 AM	30160
Surr: 4-Bromofluorobenzene	89.5	70-130		%Rec	5	2/17/2017 10:57:53 AM	30160
Surr: Dibromofluoromethane	108	70-130		%Rec	5	2/17/2017 10:57:53 AM	30160
Surr: Toluene-d8	95.5	70-130		%Rec	5	2/17/2017 10:57:53 AM	30160

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702782

Date Reported: 2/21/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 19-East Wall (14'-24')

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 3:11:00 PM

**Lab ID:** 1702782-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 11:04:37 AM	30276
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	66	22		mg/Kg	5	2/17/2017 11:26:47 AM	G40826
Surr: BFB	98.2	70-130		%Rec	5	2/17/2017 11:26:47 AM	G40826
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	530	9.9		mg/Kg	1	2/17/2017 11:17:34 AM	30267
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	2/17/2017 11:17:34 AM	30267
Surr: DNOP	96.2	70-130		%Rec	1	2/17/2017 11:17:34 AM	30267
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.11		mg/Kg	5	2/17/2017 11:26:47 AM	30160
Toluene	ND	0.22		mg/Kg	5	2/17/2017 11:26:47 AM	30160
Ethylbenzene	ND	0.22		mg/Kg	5	2/17/2017 11:26:47 AM	30160
Xylenes, Total	ND	0.44		mg/Kg	5	2/17/2017 11:26:47 AM	30160
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	5	2/17/2017 11:26:47 AM	30160
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	5	2/17/2017 11:26:47 AM	30160
Surr: Dibromofluoromethane	109	70-130		%Rec	5	2/17/2017 11:26:47 AM	30160
Surr: Toluene-d8	93.8	70-130		%Rec	5	2/17/2017 11:26:47 AM	30160

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702782

Date Reported: 2/21/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 20-East Base @ 24'

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 3:14:00 PM

**Lab ID:** 1702782-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 11:17:02 AM	30276
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/17/2017 11:55:17 AM	G40826
Surr: BFB	98.1	70-130		%Rec	5	2/17/2017 11:55:17 AM	G40826
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	62	9.5		mg/Kg	1	2/17/2017 11:45:07 AM	30267
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/17/2017 11:45:07 AM	30267
Surr: DNOP	94.1	70-130		%Rec	1	2/17/2017 11:45:07 AM	30267
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.091		mg/Kg	5	2/17/2017 11:55:17 AM	30160
Toluene	ND	0.18		mg/Kg	5	2/17/2017 11:55:17 AM	30160
Ethylbenzene	ND	0.18		mg/Kg	5	2/17/2017 11:55:17 AM	30160
Xylenes, Total	ND	0.36		mg/Kg	5	2/17/2017 11:55:17 AM	30160
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	5	2/17/2017 11:55:17 AM	30160
Surr: 4-Bromofluorobenzene	91.6	70-130		%Rec	5	2/17/2017 11:55:17 AM	30160
Surr: Dibromofluoromethane	113	70-130		%Rec	5	2/17/2017 11:55:17 AM	30160
Surr: Toluene-d8	97.9	70-130		%Rec	5	2/17/2017 11:55:17 AM	30160

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702782

Date Reported: 2/21/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 21-East Base @ 24'

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 3:17:00 PM

**Lab ID:** 1702782-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 11:29:27 AM	30276
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	200	20		mg/Kg	5	2/17/2017 12:24:18 PM	G40826
Surr: BFB	107	70-130		%Rec	5	2/17/2017 12:24:18 PM	G40826
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	630	9.9		mg/Kg	1	2/17/2017 12:12:42 PM	30267
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	2/17/2017 12:12:42 PM	30267
Surr: DNOP	97.9	70-130		%Rec	1	2/17/2017 12:12:42 PM	30267
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.098		mg/Kg	5	2/17/2017 12:24:18 PM	30160
Toluene	ND	0.20		mg/Kg	5	2/17/2017 12:24:18 PM	30160
Ethylbenzene	ND	0.20		mg/Kg	5	2/17/2017 12:24:18 PM	30160
Xylenes, Total	3.4	0.39		mg/Kg	5	2/17/2017 12:24:18 PM	30160
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	5	2/17/2017 12:24:18 PM	30160
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	5	2/17/2017 12:24:18 PM	30160
Surr: Dibromofluoromethane	111	70-130		%Rec	5	2/17/2017 12:24:18 PM	30160
Surr: Toluene-d8	95.6	70-130		%Rec	5	2/17/2017 12:24:18 PM	30160

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702782

21-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30276		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30276		RunNo:	40822				
Prep Date:	2/17/2017		Analysis Date:	2/17/2017		SeqNo:	1279310		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30276			SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS			Batch ID:	30276		RunNo:	40822			
Prep Date:	2/17/2017			Analysis Date:	2/17/2017		SeqNo:	1279311		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.4	90	110				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702782

21-Feb-17

**Client:** Blagg Engineering  
**Project:** Florance GC J 16A

Sample ID <b>LCS-30267</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>30267</b>			RunNo: <b>40813</b>						
Prep Date: <b>2/17/2017</b>	Analysis Date: <b>2/17/2017</b>			SeqNo: <b>1278706</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	63.8	116			
Surr: DNOP	5.3		5.000		107	70	130			

Sample ID <b>MB-30267</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>30267</b>			RunNo: <b>40813</b>						
Prep Date: <b>2/17/2017</b>	Analysis Date: <b>2/17/2017</b>			SeqNo: <b>1278707</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.4	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702782

21-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	mb-30160		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 30160		RunNo: 40826					
Prep Date:	2/10/2017		Analysis Date: 2/17/2017		SeqNo: 1279108		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.49		0.5000		97.0	70	130			

Sample ID	lcs-30160		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 30160		RunNo: 40826					
Prep Date:	2/10/2017		Analysis Date: 2/17/2017		SeqNo: 1279109		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	70	130			
Toluene	1.0	0.050	1.000	0	99.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		108	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.0	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702782

21-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	G40826	RunNo:	40826					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279111	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	460		500.0		92.0	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40826	RunNo:	40826					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279112	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.4	70	130			
Surr: BFB	470		500.0		94.8	70	130			

Sample ID	1702782-001ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	18-East Wall (14'-24')	Batch ID:	G40826	RunNo:	40826					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279113	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	92	19	94.62	0	97.3	63.2	128			
Surr: BFB	1800		1892		95.9	70	130			

Sample ID	1702782-001amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	18-East Wall (14'-24')	Batch ID:	G40826	RunNo:	40826					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279114	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	89	19	94.62	0	94.2	63.2	128	3.22	20	
Surr: BFB	1800		1892		96.3	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702782**

RcptNo: **1**

Received by/date:

*AG*

*02/17/17*

Logged By:

**Ashley Gallegos**

**2/17/2017 6:00:00 AM**

*AG*

Completed By:

**Ashley Gallegos**

**2/17/2017 6:23:51 AM**

*AG*

Reviewed By:

*AT 02/17/17*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	1.8	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	ASAP SAME DAY
Client:	BP AMERICA	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush
Mailing Address:		Project Name:	
BLAGB ENGINEERS INC.		FLORANCE GC J 16A	

Turn-Around Time: ASAP  
SAME DAY

☐ Standard ☒ Rush

Project Name: FLORANCE GC J 16A

**Chain-of-Custody Record**

Client:	BP AMERICA
Mailing Address:	BLADG ENGINEERING INC.

Project #:	NE EXCAVATION
Project Manager:	J. Blalock
Phone #:	(505) 320-1183
email or Fax#:	
QA/QC Package:	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)

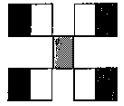
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____	Sampler: <i>J. Blahut</i>
<input type="checkbox"/> EDD (Type) _____	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Sample Temperature: <i>1-8</i>

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
1/16/07	1508	SOIL	18-EAST WALL (14'-24')	402-1	CERT	1702-782
"	1511	"	19-EAST WALL (14'-24')	"	"	-001
"	1514	"	20-EAST BASE @ 24'	"	"	-002
"	1517	"	21-EAST BASE @ 24'	"	"	-003
						-004

[illegible]

Date: 16/10/17	Time: 1705	Relinquished by: JH BERRY	Received by: C. W. LEST	Date: 2/10/2017	Time: 1705
Date: 11/10/17	Time: 1857	Relinquished by: J. W. W. W. W.	Received by: J. W. W. W. W.	Date: 02/11/17	Time: 0600

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

Project Manager: J. Burke

Sampler: J. B. B. B.  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: 1-8

Container Type and #	Preservative Type	HEAL No.
402x1	CODE	1702-782
11	11	-001
11	11	-002
11	11	-003
11	11	-004

[illegible]

Received by:	Date	Time
Car West	2/16/2017	1705
Received by:	Date	Time
Anthony M. Calles	02/17/17	0600

entrusted to other accredited laboratories. This serves as notice of this

BTEX + MTBE + THMs (8021)
BTEX + MTBE + TPH (Gas only)
TPH 8015B (GRO / DRO / MRO)
TPH (Method 418.1)
EDB (Method 504.1)
PAH's (8310 or 8270 SIMS)
RCRA 8 Metals
Anions (F <sup>-</sup> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>-</sup> , SO <sub>4</sub> <sup>-</sup> )
8081 Pesticides / 8082 PCB's
8260B (VOA)
8270 (Semi-VOA)
<i>Chloride</i>
Air Bubbles (Y or N)

A handwritten 'x' is located in the second row from the top, first column from the left. A horizontal line is drawn in the second row from the top, starting from the second column and extending to the fourth column.

Remarks: Bill BP  
CONTACT: STEVE MOSEK  
VID: VHXOUEVRM  
WEB ELEMENT: LI-0016D-E: FLRNC GCT 16A

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702998

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/23/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 22-NW Wall

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:16:00 PM

**Lab ID:** 1702998-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 10:53:20 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	6.0	3.9		mg/Kg	1	2/23/2017 10:55:27 AM	G40948
Surr: BFB	96.8	70-130		%Rec	1	2/23/2017 10:55:27 AM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	120	10		mg/Kg	1	2/23/2017 10:29:19 AM	30360
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	2/23/2017 10:29:19 AM	30360
Surr: DNOP	91.7	70-130		%Rec	1	2/23/2017 10:29:19 AM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	2/23/2017 10:55:27 AM	30350
Toluene	ND	0.039		mg/Kg	1	2/23/2017 10:55:27 AM	30350
Ethylbenzene	ND	0.039		mg/Kg	1	2/23/2017 10:55:27 AM	30350
Xylenes, Total	ND	0.077		mg/Kg	1	2/23/2017 10:55:27 AM	30350
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	1	2/23/2017 10:55:27 AM	30350
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	2/23/2017 10:55:27 AM	30350
Surr: Dibromofluoromethane	102	70-130		%Rec	1	2/23/2017 10:55:27 AM	30350
Surr: Toluene-d8	92.3	70-130		%Rec	1	2/23/2017 10:55:27 AM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 23-Base @ 32'

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:24:00 PM

**Lab ID:** 1702998-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 11:05:45 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/23/2017 12:22:24 PM	G40948
Surr: BFB	93.0	70-130		%Rec	1	2/23/2017 12:22:24 PM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	26	9.6		mg/Kg	1	2/23/2017 10:56:50 AM	30360
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/23/2017 10:56:50 AM	30360
Surr: DNOP	90.6	70-130		%Rec	1	2/23/2017 10:56:50 AM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	2/23/2017 12:22:24 PM	30350
Toluene	ND	0.039		mg/Kg	1	2/23/2017 12:22:24 PM	30350
Ethylbenzene	ND	0.039		mg/Kg	1	2/23/2017 12:22:24 PM	30350
Xylenes, Total	ND	0.078		mg/Kg	1	2/23/2017 12:22:24 PM	30350
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	2/23/2017 12:22:24 PM	30350
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	2/23/2017 12:22:24 PM	30350
Surr: Dibromofluoromethane	104	70-130		%Rec	1	2/23/2017 12:22:24 PM	30350
Surr: Toluene-d8	91.1	70-130		%Rec	1	2/23/2017 12:22:24 PM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 24-Base @ 32'

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:30:00 PM

**Lab ID:** 1702998-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 11:18:10 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	2/23/2017 12:51:24 PM	G40948
Surr: BFB	97.0	70-130		%Rec	1	2/23/2017 12:51:24 PM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	22	9.3		mg/Kg	1	2/23/2017 11:24:22 AM	30360
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/23/2017 11:24:22 AM	30360
Surr: DNOP	90.4	70-130		%Rec	1	2/23/2017 11:24:22 AM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.021		mg/Kg	1	2/23/2017 12:51:24 PM	30350
Toluene	ND	0.042		mg/Kg	1	2/23/2017 12:51:24 PM	30350
Ethylbenzene	ND	0.042		mg/Kg	1	2/23/2017 12:51:24 PM	30350
Xylenes, Total	ND	0.085		mg/Kg	1	2/23/2017 12:51:24 PM	30350
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	2/23/2017 12:51:24 PM	30350
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	2/23/2017 12:51:24 PM	30350
Surr: Dibromofluoromethane	107	70-130		%Rec	1	2/23/2017 12:51:24 PM	30350
Surr: Toluene-d8	92.5	70-130		%Rec	1	2/23/2017 12:51:24 PM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 25-Base @ 32'

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:35:00 PM

**Lab ID:** 1702998-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 11:30:34 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	61	19		mg/Kg	5	2/23/2017 11:24:29 AM	G40948
Surr: BFB	97.5	70-130		%Rec	5	2/23/2017 11:24:29 AM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	380	10		mg/Kg	1	2/23/2017 11:51:56 AM	30360
Motor Oil Range Organics (MRO)	86	50		mg/Kg	1	2/23/2017 11:51:56 AM	30360
Surr: DNOP	87.3	70-130		%Rec	1	2/23/2017 11:51:56 AM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.095		mg/Kg	5	2/23/2017 11:24:29 AM	30350
Toluene	ND	0.19		mg/Kg	5	2/23/2017 11:24:29 AM	30350
Ethylbenzene	ND	0.19		mg/Kg	5	2/23/2017 11:24:29 AM	30350
Xylenes, Total	0.97	0.38		mg/Kg	5	2/23/2017 11:24:29 AM	30350
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	5	2/23/2017 11:24:29 AM	30350
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	5	2/23/2017 11:24:29 AM	30350
Surr: Dibromofluoromethane	111	70-130		%Rec	5	2/23/2017 11:24:29 AM	30350
Surr: Toluene-d8	92.2	70-130		%Rec	5	2/23/2017 11:24:29 AM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 26-Base @ 32'

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:39:00 PM

**Lab ID:** 1702998-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 11:42:59 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/23/2017 1:20:30 PM	G40948
Surr: BFB	95.2	70-130		%Rec	1	2/23/2017 1:20:30 PM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	2/23/2017 12:19:31 PM	30360
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/23/2017 12:19:31 PM	30360
Surr: DNOP	90.0	70-130		%Rec	1	2/23/2017 12:19:31 PM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	2/23/2017 1:20:30 PM	30350
Toluene	ND	0.037		mg/Kg	1	2/23/2017 1:20:30 PM	30350
Ethylbenzene	ND	0.037		mg/Kg	1	2/23/2017 1:20:30 PM	30350
Xylenes, Total	ND	0.074		mg/Kg	1	2/23/2017 1:20:30 PM	30350
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	2/23/2017 1:20:30 PM	30350
Surr: 4-Bromofluorobenzene	88.7	70-130		%Rec	1	2/23/2017 1:20:30 PM	30350
Surr: Dibromofluoromethane	106	70-130		%Rec	1	2/23/2017 1:20:30 PM	30350
Surr: Toluene-d8	91.2	70-130		%Rec	1	2/23/2017 1:20:30 PM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 27-South Wall #2

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:48:00 PM

**Lab ID:** 1702998-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 11:55:24 AM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	43	19		mg/Kg	5	2/23/2017 11:53:28 AM	G40948
Surr: BFB	97.6	70-130		%Rec	5	2/23/2017 11:53:28 AM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	320	9.9		mg/Kg	1	2/23/2017 12:46:58 PM	30360
Motor Oil Range Organics (MRO)	77	49		mg/Kg	1	2/23/2017 12:46:58 PM	30360
Surr: DNOP	91.2	70-130		%Rec	1	2/23/2017 12:46:58 PM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.096		mg/Kg	5	2/23/2017 11:53:28 AM	30350
Toluene	ND	0.19		mg/Kg	5	2/23/2017 11:53:28 AM	30350
Ethylbenzene	ND	0.19		mg/Kg	5	2/23/2017 11:53:28 AM	30350
Xylenes, Total	ND	0.38		mg/Kg	5	2/23/2017 11:53:28 AM	30350
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	5	2/23/2017 11:53:28 AM	30350
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	5	2/23/2017 11:53:28 AM	30350
Surr: Dibromofluoromethane	106	70-130		%Rec	5	2/23/2017 11:53:28 AM	30350
Surr: Toluene-d8	90.5	70-130		%Rec	5	2/23/2017 11:53:28 AM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 28-South Wall #1

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 2:53:00 PM

**Lab ID:** 1702998-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 12:07:49 PM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/23/2017 1:49:32 PM	G40948
Surr: BFB	97.0	70-130		%Rec	1	2/23/2017 1:49:32 PM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	2/23/2017 1:14:32 PM	30360
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/23/2017 1:14:32 PM	30360
Surr: DNOP	89.8	70-130		%Rec	1	2/23/2017 1:14:32 PM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	2/23/2017 1:49:32 PM	30350
Toluene	ND	0.039		mg/Kg	1	2/23/2017 1:49:32 PM	30350
Ethylbenzene	ND	0.039		mg/Kg	1	2/23/2017 1:49:32 PM	30350
Xylenes, Total	ND	0.078		mg/Kg	1	2/23/2017 1:49:32 PM	30350
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	2/23/2017 1:49:32 PM	30350
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	2/23/2017 1:49:32 PM	30350
Surr: Dibromofluoromethane	105	70-130		%Rec	1	2/23/2017 1:49:32 PM	30350
Surr: Toluene-d8	95.2	70-130		%Rec	1	2/23/2017 1:49:32 PM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702998

Date Reported: 2/24/2017

CLIENT: Blagg Engineering

Client Sample ID: 29-East Wall-South

Project: Florance GC J 16A

Collection Date: 2/22/2017 2:56:00 PM

Lab ID: 1702998-008

Matrix: MEOH (SOIL)

Received Date: 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 12:20:14 PM	30373
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/23/2017 2:18:24 PM	G40948
Surr: BFB	98.2	70-130		%Rec	1	2/23/2017 2:18:24 PM	G40948
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	16	9.2		mg/Kg	1	2/23/2017 1:42:07 PM	30360
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/23/2017 1:42:07 PM	30360
Surr: DNOP	89.8	70-130		%Rec	1	2/23/2017 1:42:07 PM	30360
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	2/23/2017 2:18:24 PM	30350
Toluene	ND	0.038		mg/Kg	1	2/23/2017 2:18:24 PM	30350
Ethylbenzene	ND	0.038		mg/Kg	1	2/23/2017 2:18:24 PM	30350
Xylenes, Total	ND	0.075		mg/Kg	1	2/23/2017 2:18:24 PM	30350
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	2/23/2017 2:18:24 PM	30350
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	1	2/23/2017 2:18:24 PM	30350
Surr: Dibromofluoromethane	108	70-130		%Rec	1	2/23/2017 2:18:24 PM	30350
Surr: Toluene-d8	94.0	70-130		%Rec	1	2/23/2017 2:18:24 PM	30350

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702998

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30373		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30373		RunNo: 40946					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282951		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30373		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30373		RunNo: 40946					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282952		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702998

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30360		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30360		RunNo: 40934					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282102		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	63.8	116			
Surr: DNOP	4.7		5.000		93.1	70	130			

Sample ID	MB-30360		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30360		RunNo: 40934					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282103		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	70	130			

Sample ID	1702998-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	22-NW Wall		Batch ID: 30360		RunNo: 40934					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282930		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	160	9.4	46.86	123.2	80.7	51.6	130			
Surr: DNOP	4.9		4.686		106	70	130			

Sample ID	1702998-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	22-NW Wall		Batch ID:	30360		RunNo:	40934				
Prep Date:	2/23/2017		Analysis Date:	2/23/2017		SeqNo:	1282931		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	190	9.9	49.50	123.2	127	51.6	130	14.3	20		
Surr: DNOP	5.3		4.950		107	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702998

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	mb-30350		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 30350		RunNo: 40948					
Prep Date:	2/22/2017		Analysis Date: 2/23/2017		SeqNo: 1283074		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.54		0.5000		108	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.5	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.49		0.5000		98.0	70	130			

Sample ID	lcs-30350		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 30350		RunNo: 40948					
Prep Date:	2/22/2017		Analysis Date: 2/23/2017		SeqNo: 1283076		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	118	70	130			
Toluene	1.0	0.050	1.000	0	99.5	70	130			
Surr: 1,2-Dichloroethane-d4	0.56		0.5000		112	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.3	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702998

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	G40948	RunNo:	40948					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1283134	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	460		500.0		92.3	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40948	RunNo:	40948					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1283135	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.0	70	130			
Surr: BFB	480		500.0		96.5	70	130			

Sample ID	1702998-001ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	22-NW Wall	Batch ID:	G40948	RunNo:	40948					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1283136	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	3.9	19.29	5.980	99.4	63.2	128			
Surr: BFB	380		385.8		97.3	70	130			

Sample ID	1702998-001amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	22-NW Wall	Batch ID:	G40948	RunNo:	40948					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1283137	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	3.9	19.29	5.980	97.1	63.2	128	1.76	20	
Surr: BFB	380		385.8		97.9	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702998**

ReptNo: 1

Received by/date:

*AG*

*02/23/17*

Logged By: **Andy Jansson**

2/23/2017 8:00:00 AM

Completed By: **Ashley Gallegos**

2/23/2017 8:23:07 AM

Reviewed By:

*AG*

*02/23/17*

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:  ( $<2$  or  $>12$  unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

## Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			







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

March 01, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702B88

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/28/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B88**

Date Reported: **3/1/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 22R2-NW Sidewall

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 2:12:00 PM

**Lab ID:** 1702B88-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 10:50:18 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/28/2017 11:01:10 AM	30431
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/28/2017 11:01:10 AM	30431
Surr: DNOP	101	70-130		%Rec	1	2/28/2017 11:01:10 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	2/28/2017 10:40:22 AM	G41049
Surr: BFB	86.8	54-150		%Rec	1	2/28/2017 10:40:22 AM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	2/28/2017 10:40:22 AM	B41049
Toluene	ND	0.036		mg/Kg	1	2/28/2017 10:40:22 AM	B41049
Ethylbenzene	ND	0.036		mg/Kg	1	2/28/2017 10:40:22 AM	B41049
Xylenes, Total	ND	0.073		mg/Kg	1	2/28/2017 10:40:22 AM	B41049
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	2/28/2017 10:40:22 AM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 25R-Base @ 35'

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:45:00 PM

**Lab ID:** 1702B88-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 11:02:43 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	52	10		mg/Kg	1	2/28/2017 12:44:47 PM	30431
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/28/2017 12:44:47 PM	30431
Surr: DNOP	107	70-130		%Rec	1	2/28/2017 12:44:47 PM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.0	3.9		mg/Kg	1	2/28/2017 11:06:42 AM	G41049
Surr: BFB	119	54-150		%Rec	1	2/28/2017 11:06:42 AM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	2/28/2017 11:06:42 AM	B41049
Toluene	ND	0.039		mg/Kg	1	2/28/2017 11:06:42 AM	B41049
Ethylbenzene	ND	0.039		mg/Kg	1	2/28/2017 11:06:42 AM	B41049
Xylenes, Total	0.40	0.078		mg/Kg	1	2/28/2017 11:06:42 AM	B41049
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	2/28/2017 11:06:42 AM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 30-Base @ 35'

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:54:00 PM

**Lab ID:** 1702B88-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 11:15:07 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/28/2017 12:39:09 PM	30431
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/28/2017 12:39:09 PM	30431
Surr: DNOP	105	70-130		%Rec	1	2/28/2017 12:39:09 PM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/28/2017 11:33:11 AM	G41049
Surr: BFB	89.9	54-150		%Rec	1	2/28/2017 11:33:11 AM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	2/28/2017 11:33:11 AM	B41049
Toluene	ND	0.037		mg/Kg	1	2/28/2017 11:33:11 AM	B41049
Ethylbenzene	ND	0.037		mg/Kg	1	2/28/2017 11:33:11 AM	B41049
Xylenes, Total	ND	0.075		mg/Kg	1	2/28/2017 11:33:11 AM	B41049
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	2/28/2017 11:33:11 AM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 31-Base @ 35'

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:56:00 PM

**Lab ID:** 1702B88-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 11:27:31 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/28/2017 11:16:26 AM	30431
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/28/2017 11:16:26 AM	30431
Surr: DNOP	99.2	70-130		%Rec	1	2/28/2017 11:16:26 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/28/2017 11:59:27 AM	G41049
Surr: BFB	81.8	54-150		%Rec	1	2/28/2017 11:59:27 AM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	2/28/2017 11:59:27 AM	B41049
Toluene	ND	0.038		mg/Kg	1	2/28/2017 11:59:27 AM	B41049
Ethylbenzene	ND	0.038		mg/Kg	1	2/28/2017 11:59:27 AM	B41049
Xylenes, Total	ND	0.075		mg/Kg	1	2/28/2017 11:59:27 AM	B41049
Surr: 4-Bromofluorobenzene	81.7	80-120		%Rec	1	2/28/2017 11:59:27 AM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 32-Base @ 35'

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:59:00 PM

**Lab ID:** 1702B88-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 11:39:56 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/28/2017 11:38:12 AM	30431
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/28/2017 11:38:12 AM	30431
Surr: DNOP	98.9	70-130		%Rec	1	2/28/2017 11:38:12 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/28/2017 12:25:48 PM	G41049
Surr: BFB	77.0	54-150		%Rec	1	2/28/2017 12:25:48 PM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.021		mg/Kg	1	2/28/2017 12:25:48 PM	B41049
Toluene	ND	0.043		mg/Kg	1	2/28/2017 12:25:48 PM	B41049
Ethylbenzene	ND	0.043		mg/Kg	1	2/28/2017 12:25:48 PM	B41049
Xylenes, Total	ND	0.085		mg/Kg	1	2/28/2017 12:25:48 PM	B41049
Surr: 4-Bromofluorobenzene	81.8	80-120		%Rec	1	2/28/2017 12:25:48 PM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 33-Base @ 35'

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 2:02:00 PM

**Lab ID:** 1702B88-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 11:52:21 AM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/28/2017 11:59:43 AM	30431
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/28/2017 11:59:43 AM	30431
Surr: DNOP	99.2	70-130		%Rec	1	2/28/2017 11:59:43 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/28/2017 12:52:04 PM	G41049
Surr: BFB	80.3	54-150		%Rec	1	2/28/2017 12:52:04 PM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	2/28/2017 12:52:04 PM	B41049
Toluene	ND	0.041		mg/Kg	1	2/28/2017 12:52:04 PM	B41049
Ethylbenzene	ND	0.041		mg/Kg	1	2/28/2017 12:52:04 PM	B41049
Xylenes, Total	ND	0.081		mg/Kg	1	2/28/2017 12:52:04 PM	B41049
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	2/28/2017 12:52:04 PM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B88

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 34-West Sidewall

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 2:25:00 PM

**Lab ID:** 1702B88-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 12:04:45 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/28/2017 12:21:27 PM	30431
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/28/2017 12:21:27 PM	30431
Surr: DNOP	100	70-130		%Rec	1	2/28/2017 12:21:27 PM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/28/2017 1:18:18 PM	G41049
Surr: BFB	80.6	54-150		%Rec	1	2/28/2017 1:18:18 PM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	2/28/2017 1:18:18 PM	B41049
Toluene	ND	0.037		mg/Kg	1	2/28/2017 1:18:18 PM	B41049
Ethylbenzene	ND	0.037		mg/Kg	1	2/28/2017 1:18:18 PM	B41049
Xylenes, Total	ND	0.075		mg/Kg	1	2/28/2017 1:18:18 PM	B41049
Surr: 4-Bromofluorobenzene	86.0	80-120		%Rec	1	2/28/2017 1:18:18 PM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B88

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30447		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30447		RunNo:	41047				
Prep Date:	2/28/2017		Analysis Date:	2/28/2017		SeqNo:	1286758		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30447		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30447		RunNo: 41047					
Prep Date:	2/28/2017		Analysis Date: 2/28/2017		SeqNo: 1286759		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B88

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30431	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30431			RunNo: 41032					
Prep Date:	2/28/2017	Analysis Date: 2/28/2017			SeqNo: 1285370		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	70	130			

Sample ID	LCS-30399			SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	30399		RunNo:	41033			
Prep Date:	2/27/2017			Analysis Date:	2/28/2017		SeqNo:	1285372		Units:	%Rec
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.000		93.9	70	130				

Sample ID	MB-30399		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30399		RunNo: 41033					
Prep Date:	2/27/2017		Analysis Date: 2/28/2017		SeqNo: 1285373		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-30431		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30431		RunNo: 41032					
Prep Date:	2/28/2017		Analysis Date: 2/28/2017		SeqNo: 1285512		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	90.6	63.8	116			
Surr: DNOP	4.4		5.000		88.5	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B88

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286082	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	960		1000		95.8	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286083	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	76.4	125			
Surr: BFB	1200		1000		116	54	150			

Sample ID	MB-30408	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286086	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	54	150			

Sample ID	LCS-30408	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286087	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B88

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286104	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286105	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.3	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	103	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	107	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

Sample ID	1702B88-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	22R2-NW Sidewall	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286106	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.71	0.018	0.7289	0	97.7	61.5	138			
Toluene	0.72	0.036	0.7289	0	99.5	71.4	127			
Ethylbenzene	0.73	0.036	0.7289	0	99.9	70.9	132			
Xylenes, Total	2.3	0.073	2.187	0	103	76.2	123			
Surr: 4-Bromofluorobenzene	0.70		0.7289		96.5	66.6	132			

Sample ID	1702B88-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	22R2-NW Sidewall	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286107	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.018	0.7289	0	107	61.5	138	9.09	20	
Toluene	0.79	0.036	0.7289	0	109	71.4	127	9.07	20	
Ethylbenzene	0.79	0.036	0.7289	0	109	70.9	132	8.31	20	
Xylenes, Total	2.4	0.073	2.187	0	111	76.2	123	7.23	20	
Surr: 4-Bromofluorobenzene	0.66		0.7289		90.7	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B88

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30408		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30408		RunNo: 41049					
Prep Date:	2/27/2017		Analysis Date: 2/28/2017		SeqNo: 1286108		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.0	66.6	132			

Sample ID	LCS-30408		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30408		RunNo: 41049					
Prep Date:	2/27/2017		Analysis Date: 2/28/2017		SeqNo: 1286109		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.1	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



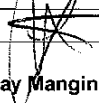
Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1702B88

RcptNo: 1

Received by/date:		<u>02/28/17</u>
Logged By:	Lindsay Mangin	2/28/2017 7:30:00 AM
Completed By:	Lindsay Mangin	2/28/2017 8:05:16 AM
Reviewed By:	<u>JO</u>	<u>02/28/17</u>

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

<b>Chain-of-Custody Record</b>							
Client: BP AMERICA		Turn-Around Time: ASAP Standard Rush SAME DAY					
Mailing Address:  BLAGG ENGINEERING INC.		Project Name:  FLORANCE GC J 16A					
Phone #: (505) 320-1183		Project #:					
email or Fax#:		NE EXCAVATION					
QA/QC Package:		Project Manager:  J. Blag6					
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)							
Accreditation		Sampler: J. Blag6					
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
<input type="checkbox"/> EDD (Type)		Sample Temperature: 19					
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	
3/7/17	1412	SOIL	22 R2 - NW SIDEWALK	4 oz x 1	Cool	1702888	-001
	1345		25 R - BASE @ 35'				-002
	1354		30 - BASE @ 35'				-003
	1356		31 - BASE @ 35'				-004
	1359		32 - BASE @ 35'				-005
	1402		33 - BASE @ 35'				-006
	1425		34 - WEST SIDEWALK				-007
Date: 3/7/17	Time: 1643	Relinquished by: Jeff Blagg		Received by: [Signature]		Date: 3/7/17	Time: 1643
Date: 3/7/17	Time: 1855	Relinquished by: Christine Waacke		Received by: [Signature]		Date: 02/28/17	Time: 0730

Turn-Around Time: ASAP					
<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush	SAME DAY			
Project Name: FLORANCE GC J 16A					
Project #: NE EXCAVATION					
Project Manager: J. BLA66					
Sampler: J. BLA66					
On Ice: <input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No			
Sample Temperature: 1.9					
Container Type and #	Preservative Type	HEAL No.	Date	Time	
402 x 1	Cool	-001	7/28/88		
		-002			
		-003			
		-004			
		-005			
		-006			
		-007			
Received by: [Signature] Date: 7/29/88 Time: 1643					
Received by: [Signature] Date: 7/28/88 Time: 0730					



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**  
[www.hallenvironmental.com](http://www.hallenvironmental.com)

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

## Analysis Request

[illegible]

Remarks: BILL BP CONTACT: STEVE MOSKAL  
VID: VHIXONEVRM  
WBS ELEMENT: LI-0016D-E:FLRNLGCJ16A

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 09, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703348

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/8/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703348

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 35-West Wall

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 2:38:00 PM

**Lab ID:** 1703348-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 10:24:25 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/8/2017 8:58:01 AM	30576
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/8/2017 8:58:01 AM	30576
Surr: DNOP	100	70-130		%Rec	1	3/8/2017 8:58:01 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/8/2017 9:57:16 AM	G41229
Surr: BFB	85.4	54-150		%Rec	1	3/8/2017 9:57:16 AM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	3/8/2017 9:57:16 AM	B41229
Toluene	ND	0.041		mg/Kg	1	3/8/2017 9:57:16 AM	B41229
Ethylbenzene	ND	0.041		mg/Kg	1	3/8/2017 9:57:16 AM	B41229
Xylenes, Total	ND	0.081		mg/Kg	1	3/8/2017 9:57:16 AM	B41229
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	3/8/2017 9:57:16 AM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703348

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 36-West Wall

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 2:44:00 PM

**Lab ID:** 1703348-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 10:36:50 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/8/2017 9:22:17 AM	30576
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/8/2017 9:22:17 AM	30576
Surr: DNOP	103	70-130		%Rec	1	3/8/2017 9:22:17 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/8/2017 10:20:39 AM	G41229
Surr: BFB	82.9	54-150		%Rec	1	3/8/2017 10:20:39 AM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/8/2017 10:20:39 AM	B41229
Toluene	ND	0.036		mg/Kg	1	3/8/2017 10:20:39 AM	B41229
Ethylbenzene	ND	0.036		mg/Kg	1	3/8/2017 10:20:39 AM	B41229
Xylenes, Total	ND	0.071		mg/Kg	1	3/8/2017 10:20:39 AM	B41229
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	3/8/2017 10:20:39 AM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703348

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30589		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30589		RunNo: 41226					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292439		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30589		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30589		RunNo: 41226					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292440		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

Sample ID	MB-30589		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30589		RunNo:	41227				
Prep Date:	3/8/2017		Analysis Date:	3/8/2017		SeqNo:	1292528		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30589		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30589		RunNo: 41227					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292529		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703348

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30576		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30576		RunNo: 41217					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1291504		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.0	63.8	116			
Surr: DNOP	4.7		5.000		94.0	70	130			

Sample ID	MB-30576	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30576			RunNo: 41217					
Prep Date:	3/8/2017	Analysis Date: 3/8/2017			SeqNo: 1291505		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	1703348-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	35-West Wall		Batch ID: 30576		RunNo: 41219					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1291740		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.5	47.66	2.038	91.9	51.6	130			
Surr: DNOP	4.7		4.766		97.6	70	130			

Sample ID	1703348-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	35-West Wall		Batch ID:	30576		RunNo:	41219				
Prep Date:	3/8/2017		Analysis Date:	3/8/2017		SeqNo:	1291743		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	46	9.3	46.38	2.038	95.7	51.6	130	1.27	20		
Surr: DNOP	4.6		4.638		99.7	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703348

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292216	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	860		1000		85.5	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292217	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	94.1	76.4	125			
Surr: BFB	940		1000		93.5	54	150			

Sample ID	1703348-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	35-West Wall	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292218	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.1	20.31	0	91.2	61.3	150			
Surr: BFB	780		812.3		96.5	54	150			

Sample ID	1703348-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	35-West Wall	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292219	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.1	20.31	0	104	61.3	150	12.8	20	
Surr: BFB	770		812.3		95.3	54	150	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703348

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292222	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292223	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.2	115			
Toluene	1.1	0.050	1.000	0	105	80.7	112			
Ethylbenzene	1.1	0.050	1.000	0	107	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	108	79.2	115			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	66.6	132			

Sample ID	1703348-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	36-West Wall	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292224	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.018	0.7112	0	119	61.5	138			
Toluene	0.86	0.036	0.7112	0	121	71.4	127			
Ethylbenzene	0.83	0.036	0.7112	0	117	70.9	132			
Xylenes, Total	2.5	0.071	2.134	0	118	76.2	123			
Surr: 4-Bromofluorobenzene	0.87		0.7112		122	66.6	132			

Sample ID	1703348-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	36-West Wall	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292225	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.018	0.7112	0	116	61.5	138	2.76	20	
Toluene	0.82	0.036	0.7112	0	115	71.4	127	4.64	20	
Ethylbenzene	0.80	0.036	0.7112	0	112	70.9	132	4.35	20	
Xylenes, Total	2.4	0.071	2.134	0	113	76.2	123	4.30	20	
Surr: 4-Bromofluorobenzene	0.85		0.7112		120	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703348**

RcptNo: **1**

Received by/date:	<i>[Signature]</i>	<i>03/08/17</i>
Logged By:	<b>Lindsay Mangin</b>	3/8/2017 7:35:00 AM
Completed By:	<b>Lindsay Mangin</b>	3/8/2017 7:43:08 AM
Reviewed By:	<i>[Signature]</i>	<i>03/08/17</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?  
(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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.6	Good	Yes			

# Chain-of-Custody Record

Turn-Around Time:

SAME DAY

Client: BP America

☐ Standard ☒ Rush

BLAG ENGINEERING INC

Project Name:

FLORENCE GC J 16A

Mailing Address:

Project #:

NE Excavation

Phone #: (505) 320-1183

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

Sampler: J. Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

Date Time Matrix Sample Request ID

Container Type and #

Preservative Type

HEAL No

1703348

-001

-002

402 x 1

COOL

35-WEST WALL

36-WEST WALL

1438

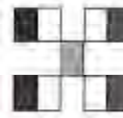
1444

3/7/2017

"

Date:	Time:	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
3/7/2017	1619	Jeff Blagg	3/7/2017	1649	Chris Hart	3/7/2017	1649
Date:	Time:	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
3/7/17	1907	Chris Wall	03/08/17	0735	Chris Hart	03/08/17	0735

Remarks: Bill BP Contact: Steve Masked  
VID = VHX0N0EVRM  
WBS ELEMENT: L1-0016D-E: FLRNCGC J 16A



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Sims) (8021)	TPH (Method 418.1)	TPH 8015B (GRO / DRO / MRO)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8091 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X		X								X	
X	X		X								X	



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

March 14, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703591

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/11/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703591**Date Reported: **3/14/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 37-West Base/Wall**Project:** Florance GC J 16A**Collection Date:** 3/10/2017 1:02:00 PM**Lab ID:** 1703591-001**Matrix:** MEOH (SOIL)**Received Date:** 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 11:24:46 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/13/2017 11:40:44 AM	30650
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/13/2017 11:40:44 AM	30650
Surr: DNOP	104	70-130		%Rec	1	3/13/2017 11:40:44 AM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	3/13/2017 11:48:17 AM	30631
Surr: BFB	79.5	54-150		%Rec	1	3/13/2017 11:48:17 AM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/13/2017 11:48:17 AM	30631
Toluene	ND	0.039		mg/Kg	1	3/13/2017 11:48:17 AM	30631
Ethylbenzene	ND	0.039		mg/Kg	1	3/13/2017 11:48:17 AM	30631
Xylenes, Total	ND	0.077		mg/Kg	1	3/13/2017 11:48:17 AM	30631
Surr: 4-Bromofluorobenzene	86.5	66.6-132		%Rec	1	3/13/2017 11:48:17 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703591

Date Reported: 3/14/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 38-West Base/Wall

**Project:** Florance GC J 16A

**Collection Date:** 3/10/2017 1:07:00 PM

**Lab ID:** 1703591-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 11:37:10 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	28	9.7		mg/Kg	1	3/13/2017 12:02:21 PM	30650
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/13/2017 12:02:21 PM	30650
Surr: DNOP	103	70-130		%Rec	1	3/13/2017 12:02:21 PM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/13/2017 12:14:27 PM	30631
Surr: BFB	86.9	54-150		%Rec	1	3/13/2017 12:14:27 PM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/13/2017 12:14:27 PM	30631
Toluene	ND	0.038		mg/Kg	1	3/13/2017 12:14:27 PM	30631
Ethylbenzene	ND	0.038		mg/Kg	1	3/13/2017 12:14:27 PM	30631
Xylenes, Total	ND	0.077		mg/Kg	1	3/13/2017 12:14:27 PM	30631
Surr: 4-Bromofluorobenzene	77.8	66.6-132		%Rec	1	3/13/2017 12:14:27 PM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703591

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30664		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30664		RunNo:	41329				
Prep Date:	3/13/2017		Analysis Date:	3/13/2017		SeqNo:	1296016		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30664		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30664		RunNo: 41329					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1296017		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703591

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30650		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30650		RunNo: 41323					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1294853		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	93.8	63.8	116			
Surr: DNOP	4.8		5.000		95.8	70	130			

Sample ID	MB-30650	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30650			RunNo: 41323					
Prep Date:	3/13/2017	Analysis Date: 3/13/2017			SeqNo: 1294854		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-30637		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30637		RunNo: 41324					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295865		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID	MB-30637		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30637		RunNo: 41324					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295866		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.2	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703591

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295376		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	800		1000		79.9	54	150			

Sample ID	LCS-30631		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295377		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	105	76.4	125			
Surr: BFB	1000		1000		103	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703591

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295395		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	66.6	132			

Sample ID	LCS-30631			SampType:	LCS			TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS			Batch ID:	30631			RunNo:	41331					
Prep Date:	3/10/2017			Analysis Date:	3/13/2017			SeqNo:	1295396			Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.97	0.025	1.000	0	96.7	80	120							
Toluene	0.99	0.050	1.000	0	98.9	80	120							
Ethylbenzene	1.0	0.050	1.000	0	100	80	120							
Xylenes, Total	3.1	0.10	3.000	0	103	80	120							
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	66.6	132							

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1703591

RcptNo: 1

Received by/date:

Logged By: **Lindsay Mangin**

3/11/2017 8:00:00 AM

Completed By: **Lindsay Mangin**

3/11/2017 8:38:58 AM

Reviewed By:

## 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:

(&lt;2 or &gt;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	2.9	Good	Yes			

## Analysis Request

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 16, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703654

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/14/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 39-West Wall/North

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 2:42:00 PM

**Lab ID:** 1703654-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 11:11:50 AM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/14/2017 10:37:38 AM	30671
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 10:37:38 AM	30671
Surr: DNOP	92.4	70-130		%Rec	1	3/14/2017 10:37:38 AM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/14/2017 9:01:14 AM	30654
Surr: BFB	81.2	54-150		%Rec	1	3/14/2017 9:01:14 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/14/2017 9:01:14 AM	30654
Toluene	ND	0.035		mg/Kg	1	3/14/2017 9:01:14 AM	30654
Ethylbenzene	ND	0.035		mg/Kg	1	3/14/2017 9:01:14 AM	30654
Xylenes, Total	ND	0.070		mg/Kg	1	3/14/2017 9:01:14 AM	30654
Surr: 4-Bromofluorobenzene	89.8	66.6-132		%Rec	1	3/14/2017 9:01:14 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 40-West Wall/North**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 2:44:00 PM**Lab ID:** 1703654-002**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 11:24:15 AM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/14/2017 11:02:11 AM	30671
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 11:02:11 AM	30671
Surr: DNOP	93.3	70-130		%Rec	1	3/14/2017 11:02:11 AM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/14/2017 9:27:35 AM	30654
Surr: BFB	67.2	54-150		%Rec	1	3/14/2017 9:27:35 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/14/2017 9:27:35 AM	30654
Toluene	ND	0.035		mg/Kg	1	3/14/2017 9:27:35 AM	30654
Ethylbenzene	ND	0.035		mg/Kg	1	3/14/2017 9:27:35 AM	30654
Xylenes, Total	ND	0.070		mg/Kg	1	3/14/2017 9:27:35 AM	30654
Surr: 4-Bromofluorobenzene	73.7	66.6-132		%Rec	1	3/14/2017 9:27:35 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 41-West Wall/North**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 2:47:00 PM**Lab ID:** 1703654-003**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 11:36:39 AM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/14/2017 11:26:43 AM	30671
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 11:26:43 AM	30671
Surr: DNOP	91.7	70-130		%Rec	1	3/14/2017 11:26:43 AM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/14/2017 9:53:56 AM	30654
Surr: BFB	65.8	54-150		%Rec	1	3/14/2017 9:53:56 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/14/2017 9:53:56 AM	30654
Toluene	ND	0.037		mg/Kg	1	3/14/2017 9:53:56 AM	30654
Ethylbenzene	ND	0.037		mg/Kg	1	3/14/2017 9:53:56 AM	30654
Xylenes, Total	ND	0.074		mg/Kg	1	3/14/2017 9:53:56 AM	30654
Surr: 4-Bromofluorobenzene	73.4	66.6-132		%Rec	1	3/14/2017 9:53:56 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703654

Date Reported: 3/16/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TH101-Grab@31'

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 3:01:00 PM

**Lab ID:** 1703654-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 11:49:04 AM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/14/2017 11:51:28 AM	30671
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2017 11:51:28 AM	30671
Surr: DNOP	90.9	70-130		%Rec	1	3/14/2017 11:51:28 AM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/14/2017 10:20:21 AM	30654
Surr: BFB	70.4	54-150		%Rec	1	3/14/2017 10:20:21 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/14/2017 10:20:21 AM	30654
Toluene	ND	0.036		mg/Kg	1	3/14/2017 10:20:21 AM	30654
Ethylbenzene	ND	0.036		mg/Kg	1	3/14/2017 10:20:21 AM	30654
Xylenes, Total	ND	0.072		mg/Kg	1	3/14/2017 10:20:21 AM	30654
Surr: 4-Bromofluorobenzene	77.6	66.6-132		%Rec	1	3/14/2017 10:20:21 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TH101-North Wall**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 2:53:00 PM**Lab ID:** 1703654-005**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:01:29 PM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/14/2017 12:16:05 PM	30671
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/14/2017 12:16:05 PM	30671
Surr: DNOP	88.6	70-130		%Rec	1	3/14/2017 12:16:05 PM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/14/2017 10:46:33 AM	30654
Surr: BFB	77.3	54-150		%Rec	1	3/14/2017 10:46:33 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/14/2017 10:46:33 AM	30654
Toluene	ND	0.037		mg/Kg	1	3/14/2017 10:46:33 AM	30654
Ethylbenzene	ND	0.037		mg/Kg	1	3/14/2017 10:46:33 AM	30654
Xylenes, Total	ND	0.075		mg/Kg	1	3/14/2017 10:46:33 AM	30654
Surr: 4-Bromofluorobenzene	84.1	66.6-132		%Rec	1	3/14/2017 10:46:33 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TH101-West Wall

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 3:09:00 PM

**Lab ID:** 1703654-006

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:13:54 PM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/14/2017 12:40:54 PM	30671
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2017 12:40:54 PM	30671
Surr: DNOP	91.0	70-130		%Rec	1	3/14/2017 12:40:54 PM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/14/2017 11:12:45 AM	30654
Surr: BFB	78.6	54-150		%Rec	1	3/14/2017 11:12:45 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/14/2017 11:12:45 AM	30654
Toluene	ND	0.036		mg/Kg	1	3/14/2017 11:12:45 AM	30654
Ethylbenzene	ND	0.036		mg/Kg	1	3/14/2017 11:12:45 AM	30654
Xylenes, Total	ND	0.072		mg/Kg	1	3/14/2017 11:12:45 AM	30654
Surr: 4-Bromofluorobenzene	86.3	66.6-132		%Rec	1	3/14/2017 11:12:45 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703654**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TH101-Base@25'

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 3:12:00 PM

**Lab ID:** 1703654-007

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:26:19 PM	30685
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/14/2017 1:05:32 PM	30671
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2017 1:05:32 PM	30671
Surr: DNOP	93.6	70-130		%Rec	1	3/14/2017 1:05:32 PM	30671
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/14/2017 11:39:01 AM	30654
Surr: BFB	76.7	54-150		%Rec	1	3/14/2017 11:39:01 AM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/14/2017 11:39:01 AM	30654
Toluene	ND	0.037		mg/Kg	1	3/14/2017 11:39:01 AM	30654
Ethylbenzene	ND	0.037		mg/Kg	1	3/14/2017 11:39:01 AM	30654
Xylenes, Total	ND	0.074		mg/Kg	1	3/14/2017 11:39:01 AM	30654
Surr: 4-Bromofluorobenzene	83.4	66.6-132		%Rec	1	3/14/2017 11:39:01 AM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703654

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30685		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30685		RunNo: 41363					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1297164		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30685		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30685		RunNo: 41363					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1297165		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.7	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703654

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30671		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30671		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1295899		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	89.1	63.8	116			
Surr: DNOP	4.5		5.000		90.1	70	130			

Sample ID	MB-30671	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30671			RunNo: 41353					
Prep Date:	3/14/2017	Analysis Date: 3/14/2017			SeqNo: 1295900		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		95.2	70	130			

Sample ID	1703654-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	39-West Wall/North		Batch ID: 30671		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1296344		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.4	47.13	2.709	82.2	51.6	130			
Surr: DNOP	4.1		4.713		86.8	70	130			

Sample ID	1703654-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	39-West Wall/North		Batch ID: 30671		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1296392		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.5	47.71	2.709	84.5	51.6	130	3.74	20	
Surr: DNOP	4.3		4.771		89.6	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703654

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30654		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296623		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	750		1000		74.8	54	150			

Sample ID	LCS-30654		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296624		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	76.4	125			
Surr: BFB	980		1000		98.1	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703654

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30654		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296641		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.83		1.000		83.0	66.6	132			

Sample ID	LCS-30654		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296642		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	80	120			
Toluene	0.98	0.050	1.000	0	98.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		83.7	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703654**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

3/14/2017 7:35:00 AM

Completed By: **Lindsay Mangin**

3/14/2017 7:49:38 AM

Reviewed By:

*AT* 03/14/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

# Chain-of-Custody Record

Turn-Around Time: SAME DAY

Client: DP America  
 Project Name: FLORANCE GC J 16A  
 Project #:  
 Project Manager: J. B. Bagg  
 Sampler: J. Bagg  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: 1.8



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

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

QA/QC Package: ☒ Level 4 (Full Validation)  
 Accreditation: ☐ NELAP ☐ Other  
 EOD (Type):

## Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMS (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
3/13/17	1442	SOIL	39-WEST Well / North	4oz x 1	Cap	1703654	X		X									X	
"	1444	"	40-WEST Well / North			-002-													
"	1447	"	41-WEST Well / North			-003-													
"	1501	"	TH 101-NORTH WALL GRAB			-004-													
"	1453	"	TH 101-NORTH Wall			-005-													
"	1509	"	TH 101-WEST Wall			-006-													
"	1512	"	TH 101-BASE @ 25"			-007-													

Relinquished by: Bill Bagg Date: 3/13/17 Time: 1705  
 Relinquished by: Christa Walker Date: 3/13/17 Time: 1705  
 Received by: Christa Walker Date: 3/14/17 Time: 0735

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



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

March 17, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703853

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/16/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703853**Date Reported: **3/17/2017****CLIENT:** Blagg Engineering**Client Sample ID:** 42-West Wall**Project:** Florance GC J 16A**Collection Date:** 3/15/2017 3:17:00 PM**Lab ID:** 1703853-001**Matrix:** MEOH (SOIL)**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 12:27:58 PM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/16/2017 9:35:10 AM	30722
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/16/2017 9:35:10 AM	30722
Surr: DNOP	92.3	70-130		%Rec	1	3/16/2017 9:35:10 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/16/2017 9:46:01 AM	G41423
Surr: BFB	90.9	54-150		%Rec	1	3/16/2017 9:46:01 AM	G41423
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/16/2017 9:46:01 AM	B41423
Toluene	ND	0.037		mg/Kg	1	3/16/2017 9:46:01 AM	B41423
Ethylbenzene	ND	0.037		mg/Kg	1	3/16/2017 9:46:01 AM	B41423
Xylenes, Total	ND	0.074		mg/Kg	1	3/16/2017 9:46:01 AM	B41423
Surr: 4-Bromofluorobenzene	124	66.6-132		%Rec	1	3/16/2017 9:46:01 AM	B41423

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703853

Date Reported: 3/17/2017

CLIENT: Blagg Engineering

Client Sample ID: 43-West Wall

Project: Florance GC J 16A

Collection Date: 3/15/2017 3:21:00 PM

Lab ID: 1703853-002

Matrix: MEOH (SOIL)

Received Date: 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 12:40:23 PM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	3/16/2017 10:02:23 AM	30722
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/16/2017 10:02:23 AM	30722
Surr: DNOP	91.8	70-130		%Rec	1	3/16/2017 10:02:23 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/16/2017 10:09:28 AM	G41423
Surr: BFB	88.3	54-150		%Rec	1	3/16/2017 10:09:28 AM	G41423
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/16/2017 10:09:28 AM	B41423
Toluene	ND	0.038		mg/Kg	1	3/16/2017 10:09:28 AM	B41423
Ethylbenzene	ND	0.038		mg/Kg	1	3/16/2017 10:09:28 AM	B41423
Xylenes, Total	ND	0.076		mg/Kg	1	3/16/2017 10:09:28 AM	B41423
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	1	3/16/2017 10:09:28 AM	B41423

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703853

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 44-West Wall

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 3:25:00 PM

**Lab ID:** 1703853-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 12:52:48 PM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	11	9.7		mg/Kg	1	3/16/2017 10:29:40 AM	30722
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/16/2017 10:29:40 AM	30722
Surr: DNOP	93.9	70-130		%Rec	1	3/16/2017 10:29:40 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/16/2017 10:32:54 AM	G41423
Surr: BFB	87.5	54-150		%Rec	1	3/16/2017 10:32:54 AM	G41423
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/16/2017 10:32:54 AM	B41423
Toluene	ND	0.036		mg/Kg	1	3/16/2017 10:32:54 AM	B41423
Ethylbenzene	ND	0.036		mg/Kg	1	3/16/2017 10:32:54 AM	B41423
Xylenes, Total	ND	0.071		mg/Kg	1	3/16/2017 10:32:54 AM	B41423
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	3/16/2017 10:32:54 AM	B41423

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703853

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30730		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30730		RunNo:	41429				
Prep Date:	3/16/2017		Analysis Date:	3/16/2017		SeqNo:	1299397		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30730		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30730		RunNo: 41429					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1299398		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703853

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30722		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30722		RunNo: 41403					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1297887		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-30722		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30722		RunNo: 41403					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1298115		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	96.9	63.8	116			
Surr: DNOP	4.9		5.000		98.8	70	130			

Sample ID	1703853-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	42-West Wall		Batch ID: 30722		RunNo: 41402					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1298613		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.3	46.60	4.004	102	51.6	130			
Surr: DNOP	4.4		4.660		95.4	70	130			

Sample ID	1703853-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	42-West Wall		Batch ID: 30722		RunNo: 41402					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1298658		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.5	47.71	4.004	99.2	51.6	130	0.239	20	
Surr: DNOP	4.4		4.771		92.9	70	130	0	0	

Sample ID	LCS-30698		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30698		RunNo: 41403					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299328		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-30698		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30698		RunNo: 41403					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299329		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703853

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30698		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30698		RunNo: 41403					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299329		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703853

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41423	RunNo:	41423					
Prep Date:		Analysis Date:	3/16/2017	SeqNo:	1299267	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	890		1000		89.0	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41423	RunNo:	41423					
Prep Date:		Analysis Date:	3/16/2017	SeqNo:	1299268	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.2	76.4	125			
Surr: BFB	930		1000		93.3	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703853

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41423	RunNo:	41423					
Prep Date:		Analysis Date:	3/16/2017	SeqNo:	1299305	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41423	RunNo:	41423					
Prep Date:		Analysis Date:	3/16/2017	SeqNo:	1299306	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.9	80	120			
Toluene	0.99	0.050	1.000	0	99.0	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		126	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified




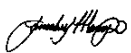
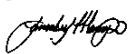
Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703853**

RcptNo: **1**

Received by/date:		<u>03/16/17</u>
Logged By:	<b>Lindsay Mangin</b>	3/16/2017 7:09:00 AM 
Completed By:	<b>Lindsay Mangin</b>	3/16/2017 7:35:09 AM 
Reviewed By:	<u>WJ</u>	<u>03/16/17</u>

### 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

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







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

March 21, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703984

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/18/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703984

Date Reported: 3/21/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 45-West Base @ -42'

**Project:** Florance GC J 16A

**Collection Date:** 3/17/2017 9:50:00 AM

**Lab ID:** 1703984-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 12:15:55 PM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/20/2017 11:03:36 AM	30779
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/20/2017 11:03:36 AM	30779
Surr: DNOP	128	70-130		%Rec	1	3/20/2017 11:03:36 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	3/20/2017 10:42:28 AM	30752
Surr: BFB	87.1	54-150		%Rec	1	3/20/2017 10:42:28 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	3/20/2017 10:42:28 AM	30752
Toluene	ND	0.030		mg/Kg	1	3/20/2017 10:42:28 AM	30752
Ethylbenzene	ND	0.030		mg/Kg	1	3/20/2017 10:42:28 AM	30752
Xylenes, Total	ND	0.061		mg/Kg	1	3/20/2017 10:42:28 AM	30752
Surr: 4-Bromofluorobenzene	94.0	66.6-132		%Rec	1	3/20/2017 10:42:28 AM	30752

(BEI Note, Transit Survey on 3/30/2017: Actual depth @ - 35' )

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703984

Date Reported: 3/21/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** 46-West Wall-North

**Project:** Florance GC J 16A

**Collection Date:** 3/17/2017 9:54:00 AM

**Lab ID:** 1703984-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 12:28:20 PM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/20/2017 11:25:51 AM	30779
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/20/2017 11:25:51 AM	30779
Surr: DNOP	106	70-130		%Rec	1	3/20/2017 11:25:51 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/20/2017 11:08:38 AM	30752
Surr: BFB	81.6	54-150		%Rec	1	3/20/2017 11:08:38 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/20/2017 11:08:38 AM	30752
Toluene	ND	0.032		mg/Kg	1	3/20/2017 11:08:38 AM	30752
Ethylbenzene	ND	0.032		mg/Kg	1	3/20/2017 11:08:38 AM	30752
Xylenes, Total	ND	0.065		mg/Kg	1	3/20/2017 11:08:38 AM	30752
Surr: 4-Bromofluorobenzene	91.3	66.6-132		%Rec	1	3/20/2017 11:08:38 AM	30752

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703984

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30796		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30796		RunNo:	41508				
Prep Date:	3/20/2017		Analysis Date:	3/20/2017		SeqNo:	1302226		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30796		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30796		RunNo: 41508					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1302227		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703984

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30779		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30779		RunNo: 41496					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1301282		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	95.5	63.8	116			
Surr: DNOP	4.9		5.000		97.8	70	130			

Sample ID	MB-30779		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30779		RunNo: 41496					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1301283		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		119	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703984

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30752		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	30752		RunNo:	41507				
Prep Date:	3/17/2017		Analysis Date:	3/20/2017		SeqNo:	1301576		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	700		1000		69.7	54	150				

Sample ID	LCS-30752		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301577		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	830		1000		82.6	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703984

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30752		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301599		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.76		1.000		76.3	66.6	132			

Sample ID	LCS-30752		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301600		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		85.4	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703984**

RcptNo: **1**

Received by/date: LA 03/18/17

Logged By: **Lindsay Mangin**

3/18/2017 8:15:00 AM

Completed By: **Lindsay Mangin**

3/18/2017 9:24:08 AM

Reviewed By: WJ

03/20/17

*[Signature]*

*[Signature]*

### 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	4.1	Good	Yes			



<b>Chain-of-Custody Record</b>		Turn-Around Time: <u>SAME DAY</u>
Client: <u>BP AMERICA</u>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush	
Mailing Address: <u>BLAGG ENGINEERING INC</u>		Project Name: <u>FLORANCE GC J 16A</u>

Turn-Around Time: SAME DAY

☐ Standard ☒ Rush

Project Name: FLORANCE GC J 16A

Project #:	
Phone #: 505-320-1183	

email or Fax#:	Project Manager,  J- Blagg
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	

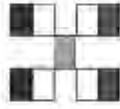
Accreditation		Sampler: J. Brate
<input type="checkbox"/> NELAP	<input type="checkbox"/> Other _____	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type) _____		Sample Temperature: 61.1

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
4/7/2017	0950	Soil	45-West Base @ -42"	4 oz x1	cool	1703984
"	0954	"	46-West Wheel-North	"	"	-001
						-002

[illegible]

Date: 4/7/2017	Time: 1310	Relinquished by: JH Bagg	Relinquished by: JH Bagg	Received by: <del>JH Bagg</del>	Date: 03/18/17	Time: 0815
Date:	Time:	Relinquished by:	Relinquished by:	Received by:	Date:	Time:

If necessary, samples submitted to Hal Environmental may be subcontracted to other accredited laboratories. This serves as notice of this



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

[illegible]

Remarks: BILL BP CONTACT: STEVE MUSKAL  
VID: VHXONEVRM  
WBS ELEMENT: L1-0016D-E: FURNCGGT 16A

(If necessary) samples submitted to Hal Environmental may be subcontracted to other accrediting laboratories. This serves as notice of this possibility. Any subcontracted data will be clearly notated on the analytical report.



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

March 23, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: FLORANCE GC J 16A

OrderNo.: 1703A92

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/22/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703A92**

Date Reported: **3/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 47-West Sidewall

**Project:** FLORANCE GC J 16A

**Collection Date:** 3/21/2017 1:08:00 PM

**Lab ID:** 1703A92-001

**Matrix:** SOIL

**Received Date:** 3/22/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/22/2017 11:13:57 AM	30843
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	42	9.5		mg/Kg	1	3/22/2017 10:54:35 AM	30836
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/22/2017 10:54:35 AM	30836
Surr: DNOP	104	70-130		%Rec	1	3/22/2017 10:54:35 AM	30836
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	3/22/2017 10:11:13 AM	G41577
Surr: BFB	125	54-150		%Rec	1	3/22/2017 10:11:13 AM	G41577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/22/2017 10:11:13 AM	B41577
Toluene	ND	0.034		mg/Kg	1	3/22/2017 10:11:13 AM	B41577
Ethylbenzene	ND	0.034		mg/Kg	1	3/22/2017 10:11:13 AM	B41577
Xylenes, Total	ND	0.069		mg/Kg	1	3/22/2017 10:11:13 AM	B41577
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	3/22/2017 10:11:13 AM	B41577

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703A92**

Date Reported: **3/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** 48 West Sidewall

**Project:** FLORANCE GC J 16A

**Collection Date:** 3/21/2017 1:17:00 PM

**Lab ID:** 1703A92-002

**Matrix:** SOIL

**Received Date:** 3/22/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/22/2017 11:26:22 AM	30843
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/22/2017 11:16:47 AM	30836
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/22/2017 11:16:47 AM	30836
Surr: DNOP	105	70-130		%Rec	1	3/22/2017 11:16:47 AM	30836
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	3/22/2017 10:34:41 AM	G41577
Surr: BFB	90.3	54-150		%Rec	1	3/22/2017 10:34:41 AM	G41577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/22/2017 10:34:41 AM	B41577
Toluene	ND	0.034		mg/Kg	1	3/22/2017 10:34:41 AM	B41577
Ethylbenzene	ND	0.034		mg/Kg	1	3/22/2017 10:34:41 AM	B41577
Xylenes, Total	ND	0.068		mg/Kg	1	3/22/2017 10:34:41 AM	B41577
Surr: 4-Bromofluorobenzene	108	66.6-132		%Rec	1	3/22/2017 10:34:41 AM	B41577

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A92

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-30843		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30843		RunNo: 41580					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1304961		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30843		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30843		RunNo: 41580					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1304962		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A92

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	LCS-30836		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30836		RunNo: 41566					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1303563		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	96.8	63.8	116			
Surr: DNOP	4.9		5.000		97.7	70	130			

Sample ID	MB-30836		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30836		RunNo: 41566					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1303564		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A92

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>G41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304575</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.8	54	150			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>G41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304576</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.4	76.4	125			
Surr: BFB	960		1000		96.4	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A92

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B41577</b>		RunNo: <b>41577</b>							
Prep Date:	Analysis Date: <b>3/22/2017</b>		SeqNo: <b>1304581</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B41577</b>		RunNo: <b>41577</b>							
Prep Date:	Analysis Date: <b>3/22/2017</b>		SeqNo: <b>1304582</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.95	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.3	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703A92**

RcptNo: **1**

Received by/date:	<u>AT 03/22/17</u>		
Logged By:	<b>Anne Thorne</b>	<b>3/22/2017 7:30:00 AM</b>	<i>Anne Thorne</i>
Completed By:	<b>Anne Thorne</b>	<b>3/22/2017 7:51:43 AM</b>	<i>Anne Thorne</i>
Reviewed By:	<u>AT</u>	<u>03/22/17</u>	

## Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

## Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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)

- Was client notified of all discrepancies with this order? Yes ☐ No ☒ NA ☐

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

- Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			





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

April 03, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703F37

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/31/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703F37**Date Reported: **4/3/2017****CLIENT:** Blagg Engineering**Client Sample ID:** AREA 49**Project:** Florance GC J 16A**Collection Date:** 3/30/2017 2:18:00 PM**Lab ID:** 1703F37-001**Matrix:** MEOH (SOIL)**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 10:56:40 AM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/31/2017 10:22:54 AM	31008
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/31/2017 10:22:54 AM	31008
Surr: DNOP	116	70-130		%Rec	1	3/31/2017 10:22:54 AM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/31/2017 9:03:41 AM	30995
Surr: BFB	73.7	54-150		%Rec	1	3/31/2017 9:03:41 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/31/2017 9:03:41 AM	30995
Toluene	ND	0.036		mg/Kg	1	3/31/2017 9:03:41 AM	30995
Ethylbenzene	ND	0.036		mg/Kg	1	3/31/2017 9:03:41 AM	30995
Xylenes, Total	ND	0.071		mg/Kg	1	3/31/2017 9:03:41 AM	30995
Surr: 4-Bromofluorobenzene	80.1	66.6-132		%Rec	1	3/31/2017 9:03:41 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

CLIENT: Blagg Engineering

Client Sample ID: AREA 50

Project: Florance GC J 16A

Collection Date: 3/30/2017 2:21:00 PM

Lab ID: 1703F37-002

Matrix: MEOH (SOIL)

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 11:09:05 AM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/31/2017 10:45:07 AM	31008
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/31/2017 10:45:07 AM	31008
Surr: DNOP	114	70-130		%Rec	1	3/31/2017 10:45:07 AM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/31/2017 9:30:03 AM	30995
Surr: BFB	75.5	54-150		%Rec	1	3/31/2017 9:30:03 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/31/2017 9:30:03 AM	30995
Toluene	ND	0.037		mg/Kg	1	3/31/2017 9:30:03 AM	30995
Ethylbenzene	ND	0.037		mg/Kg	1	3/31/2017 9:30:03 AM	30995
Xylenes, Total	ND	0.074		mg/Kg	1	3/31/2017 9:30:03 AM	30995
Surr: 4-Bromofluorobenzene	84.5	66.6-132		%Rec	1	3/31/2017 9:30:03 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 52

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 2:29:00 PM

**Lab ID:** 1703F37-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 11:21:29 AM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	3/31/2017 11:07:26 AM	31008
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/31/2017 11:07:26 AM	31008
Surr: DNOP	116	70-130		%Rec	1	3/31/2017 11:07:26 AM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/31/2017 9:56:32 AM	30995
Surr: BFB	70.7	54-150		%Rec	1	3/31/2017 9:56:32 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/31/2017 9:56:32 AM	30995
Toluene	ND	0.037		mg/Kg	1	3/31/2017 9:56:32 AM	30995
Ethylbenzene	ND	0.037		mg/Kg	1	3/31/2017 9:56:32 AM	30995
Xylenes, Total	ND	0.075		mg/Kg	1	3/31/2017 9:56:32 AM	30995
Surr: 4-Bromofluorobenzene	80.0	66.6-132		%Rec	1	3/31/2017 9:56:32 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

CLIENT: Blagg Engineering

Client Sample ID: AREA 53

Project: Florance GC J 16A

Collection Date: 3/30/2017 2:32:00 PM

Lab ID: 1703F37-004

Matrix: MEOH (SOIL)

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 11:33:53 AM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/31/2017 11:29:38 AM	31008
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/31/2017 11:29:38 AM	31008
Surr: DNOP	109	70-130		%Rec	1	3/31/2017 11:29:38 AM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/31/2017 10:23:02 AM	30995
Surr: BFB	67.8	54-150		%Rec	1	3/31/2017 10:23:02 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/31/2017 10:23:02 AM	30995
Toluene	ND	0.037		mg/Kg	1	3/31/2017 10:23:02 AM	30995
Ethylbenzene	ND	0.037		mg/Kg	1	3/31/2017 10:23:02 AM	30995
Xylenes, Total	ND	0.073		mg/Kg	1	3/31/2017 10:23:02 AM	30995
Surr: 4-Bromofluorobenzene	76.3	66.6-132		%Rec	1	3/31/2017 10:23:02 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703F37**

Date Reported: **4/3/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 54

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 2:36:00 PM

**Lab ID:** 1703F37-005

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 11:46:17 AM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	280	9.5		mg/Kg	1	3/31/2017 11:52:13 AM	31008
Motor Oil Range Organics (MRO)	75	48		mg/Kg	1	3/31/2017 11:52:13 AM	31008
Surr: DNOP	109	70-130		%Rec	1	3/31/2017 11:52:13 AM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	8.1	7.4		mg/Kg	2	3/31/2017 10:49:26 AM	30995
Surr: BFB	152	54-150	S	%Rec	2	3/31/2017 10:49:26 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.037		mg/Kg	2	3/31/2017 10:49:26 AM	30995
Toluene	ND	0.074		mg/Kg	2	3/31/2017 10:49:26 AM	30995
Ethylbenzene	ND	0.074		mg/Kg	2	3/31/2017 10:49:26 AM	30995
Xylenes, Total	ND	0.15		mg/Kg	2	3/31/2017 10:49:26 AM	30995
Surr: 4-Bromofluorobenzene	94.9	66.6-132		%Rec	2	3/31/2017 10:49:26 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 55

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 2:45:00 PM

**Lab ID:** 1703F37-006

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 12:23:30 PM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/31/2017 12:14:28 PM	31008
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/31/2017 12:14:28 PM	31008
Surr: DNOP	106	70-130		%Rec	1	3/31/2017 12:14:28 PM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	3/31/2017 11:15:48 AM	30995
Surr: BFB	70.6	54-150		%Rec	1	3/31/2017 11:15:48 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/31/2017 11:15:48 AM	30995
Toluene	ND	0.039		mg/Kg	1	3/31/2017 11:15:48 AM	30995
Ethylbenzene	ND	0.039		mg/Kg	1	3/31/2017 11:15:48 AM	30995
Xylenes, Total	ND	0.077		mg/Kg	1	3/31/2017 11:15:48 AM	30995
Surr: 4-Bromofluorobenzene	77.8	66.6-132		%Rec	1	3/31/2017 11:15:48 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

CLIENT: Blagg Engineering

Client Sample ID: AREA 56

Project: Florance GC J 16A

Collection Date: 3/30/2017 2:56:00 PM

Lab ID: 1703F37-007

Matrix: MEOH (SOIL)

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 12:35:55 PM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/31/2017 12:36:56 PM	31008
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/31/2017 12:36:56 PM	31008
Surr: DNOP	109	70-130		%Rec	1	3/31/2017 12:36:56 PM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/31/2017 11:42:12 AM	30995
Surr: BFB	73.2	54-150		%Rec	1	3/31/2017 11:42:12 AM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/31/2017 11:42:12 AM	30995
Toluene	ND	0.037		mg/Kg	1	3/31/2017 11:42:12 AM	30995
Ethylbenzene	ND	0.037		mg/Kg	1	3/31/2017 11:42:12 AM	30995
Xylenes, Total	ND	0.074		mg/Kg	1	3/31/2017 11:42:12 AM	30995
Surr: 4-Bromofluorobenzene	81.2	66.6-132		%Rec	1	3/31/2017 11:42:12 AM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 57

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 3:03:00 PM

**Lab ID:** 1703F37-008

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 12:48:19 PM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	680	9.2		mg/Kg	1	3/31/2017 12:59:13 PM	31008
Motor Oil Range Organics (MRO)	130	46		mg/Kg	1	3/31/2017 12:59:13 PM	31008
Surr: DNOP	113	70-130		%Rec	1	3/31/2017 12:59:13 PM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	120	18		mg/Kg	5	3/31/2017 12:08:32 PM	30995
Surr: BFB	396	54-150	S	%Rec	5	3/31/2017 12:08:32 PM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	3/31/2017 12:08:32 PM	30995
Toluene	ND	0.18		mg/Kg	5	3/31/2017 12:08:32 PM	30995
Ethylbenzene	ND	0.18		mg/Kg	5	3/31/2017 12:08:32 PM	30995
Xylenes, Total	1.0	0.37		mg/Kg	5	3/31/2017 12:08:32 PM	30995
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	5	3/31/2017 12:08:32 PM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F37

Date Reported: 4/3/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 51

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 2:26:00 PM

**Lab ID:** 1703F37-009

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 1:00:44 PM	31010
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	3/31/2017 1:21:23 PM	31008
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/31/2017 1:21:23 PM	31008
Surr: DNOP	108	70-130		%Rec	1	3/31/2017 1:21:23 PM	31008
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/31/2017 12:34:49 PM	30995
Surr: BFB	80.6	54-150		%Rec	1	3/31/2017 12:34:49 PM	30995
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	3/31/2017 12:34:49 PM	30995
Toluene	ND	0.038		mg/Kg	1	3/31/2017 12:34:49 PM	30995
Ethylbenzene	ND	0.038		mg/Kg	1	3/31/2017 12:34:49 PM	30995
Xylenes, Total	ND	0.076		mg/Kg	1	3/31/2017 12:34:49 PM	30995
Surr: 4-Bromofluorobenzene	85.4	66.6-132		%Rec	1	3/31/2017 12:34:49 PM	30995

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F37

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31010		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31010		RunNo:	41802				
Prep Date:	3/31/2017		Analysis Date:	3/31/2017		SeqNo:	1313317		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31010		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31010		RunNo: 41802					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1313318		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F37

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30969		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30969		RunNo: 41755					
Prep Date:	3/29/2017		Analysis Date: 3/30/2017		SeqNo: 1311683		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID	MB-30969		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30969		RunNo: 41755					
Prep Date:	3/29/2017		Analysis Date: 3/30/2017		SeqNo: 1311684		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-31008		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31008		RunNo: 41755					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1312226		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.7	63.8	116			
Surr: DNOP	4.9		5.000		98.7	70	130			

Sample ID	MB-31008	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	31008		RunNo:	41755				
Prep Date:	3/31/2017	Analysis Date:	3/31/2017		SeqNo:	1312227		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F37

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30995		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30995		RunNo: 41803					
Prep Date:	3/30/2017		Analysis Date: 3/31/2017		SeqNo: 1312759		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	720		1000		72.1	54	150			

Sample ID	LCS-30995		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30995		RunNo: 41803					
Prep Date:	3/30/2017		Analysis Date: 3/31/2017		SeqNo: 1312760		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	900		1000		90.4	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F37

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30995	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 30995		RunNo: 41803						
Prep Date:	3/30/2017	Analysis Date: 3/31/2017		SeqNo: 1312771		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.81		1.000		80.9	66.6	132			

Sample ID	LCS-30995		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30995		RunNo: 41803					
Prep Date:	3/30/2017		Analysis Date: 3/31/2017		SeqNo: 1312772		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	110	80	120			
Surr: 4-Bromofluorobenzene	0.80		1.000		79.8	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703F37**

RcptNo: **1**

Received By: **Lindsay Mangin** 3/31/2017 6:56:00 AM

Completed By: **Lindsay Mangin** 3/31/2017 7:32:46 AM

Reviewed By: **aj** 3/31/17

*[Signature]*  
*[Signature]*

## 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	1.5	Good	Yes			

# Chain-of-Custody Record

Client: BP America

Buab Engineering Inc.

Mailing Address:

Phone #: 505-320-1103

Email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Date Time Matrix Sample Request ID

3/30/17 1418 SOIL AREA 49  
1421 AREA 50  
1423 AREA 52  
1432 AREA 53  
1436 AREA 54  
1445 AREA 55  
1456 AREA 56  
1503 AREA 57  
1426 AREA 51

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

FLORIANE GC J 16A

Project #:

Project Manager:

J. Buab

Sampler:

J. Buab

On Ice:

☒ Yes ☐ No

Sample Temperature: 15

Container Type and #

402 x 1

Preservative Type

Coax

HEAL No.

1703F37

-001

-002

-003

-004

-005

-006

-007

-008

-009

Received by:

Christine Walker

Date

3/30/17

Time

1717

Received by:

Christine Walker

Date

03/31/17

Time

1716

Relinquished by:

Jeff Blegg

Date:

3/30/17

Time:

1717

Relinquished by:

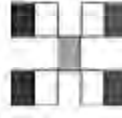
Christine Walker

Date:

3/30/17

Time:

1920



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + TMBs (8021)	X	BTEX + MTBE + TPH (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)		EDB (Method 504.1)		PAHs (8310 or 8270 SIMS)		RCRA 8 Metals		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCBs		8260B (VOA)		8270 (Semi-VOA)	X	CHLORIDE		Air Bubbles (Y or N)	
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Remarks:

Bu BP

VHIXONEVRM

L1-0018N-E: FLRNCCT 16A

Steve Maitzel



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

April 06, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1704116

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/5/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704116

Date Reported: 4/6/2017

CLIENT: Blagg Engineering

Client Sample ID: AREA 58

Project: Florance GC J 16A

Collection Date: 4/4/2017 1:55:00 PM

Lab ID: 1704116-001

Matrix: SOIL

Received Date: 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 10:51:11 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/5/2017 10:39:33 AM	31083
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/5/2017 10:39:33 AM	31083
Surr: DNOP	85.0	70-130		%Rec	1	4/5/2017 10:39:33 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/5/2017 9:42:27 AM	31074
Surr: BFB	65.4	54-150		%Rec	1	4/5/2017 9:42:27 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/5/2017 9:42:27 AM	31074
Toluene	ND	0.037		mg/Kg	1	4/5/2017 9:42:27 AM	31074
Ethylbenzene	ND	0.037		mg/Kg	1	4/5/2017 9:42:27 AM	31074
Xylenes, Total	ND	0.075		mg/Kg	1	4/5/2017 9:42:27 AM	31074
Surr: 4-Bromofluorobenzene	73.5	66.6-132		%Rec	1	4/5/2017 9:42:27 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704116**

Date Reported: **4/6/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 59

**Project:** Florance GC J 16A

**Collection Date:** 4/4/2017 2:01:00 PM

**Lab ID:** 1704116-002

**Matrix:** SOIL

**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 11:03:36 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	14	9.7		mg/Kg	1	4/5/2017 11:03:41 AM	31083
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2017 11:03:41 AM	31083
Surr: DNOP	84.8	70-130		%Rec	1	4/5/2017 11:03:41 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.1		mg/Kg	2	4/5/2017 10:08:44 AM	31074
Surr: BFB	81.6	54-150		%Rec	2	4/5/2017 10:08:44 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.036		mg/Kg	2	4/5/2017 10:08:44 AM	31074
Toluene	ND	0.071		mg/Kg	2	4/5/2017 10:08:44 AM	31074
Ethylbenzene	ND	0.071		mg/Kg	2	4/5/2017 10:08:44 AM	31074
Xylenes, Total	ND	0.14		mg/Kg	2	4/5/2017 10:08:44 AM	31074
Surr: 4-Bromofluorobenzene	93.8	66.6-132		%Rec	2	4/5/2017 10:08:44 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704116

Date Reported: 4/6/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 60

**Project:** Florance GC J 16A

**Collection Date:** 4/4/2017 2:04:00 PM

**Lab ID:** 1704116-003

**Matrix:** SOIL

**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 11:16:00 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/5/2017 11:27:52 AM	31083
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2017 11:27:52 AM	31083
Surr: DNOP	83.0	70-130		%Rec	1	4/5/2017 11:27:52 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.4		mg/Kg	2	4/5/2017 10:35:07 AM	31074
Surr: BFB	81.7	54-150		%Rec	2	4/5/2017 10:35:07 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.037		mg/Kg	2	4/5/2017 10:35:07 AM	31074
Toluene	ND	0.074		mg/Kg	2	4/5/2017 10:35:07 AM	31074
Ethylbenzene	ND	0.074		mg/Kg	2	4/5/2017 10:35:07 AM	31074
Xylenes, Total	ND	0.15		mg/Kg	2	4/5/2017 10:35:07 AM	31074
Surr: 4-Bromofluorobenzene	94.6	66.6-132		%Rec	2	4/5/2017 10:35:07 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704116

Date Reported: 4/6/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 61

**Project:** Florance GC J 16A

**Collection Date:** 4/4/2017 2:10:00 PM

**Lab ID:** 1704116-004

**Matrix:** SOIL

**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 11:28:25 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/5/2017 11:52:11 AM	31083
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/5/2017 11:52:11 AM	31083
Surr: DNOP	83.9	70-130		%Rec	1	4/5/2017 11:52:11 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/5/2017 11:01:33 AM	31074
Surr: BFB	70.4	54-150		%Rec	1	4/5/2017 11:01:33 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/5/2017 11:01:33 AM	31074
Toluene	ND	0.038		mg/Kg	1	4/5/2017 11:01:33 AM	31074
Ethylbenzene	ND	0.038		mg/Kg	1	4/5/2017 11:01:33 AM	31074
Xylenes, Total	ND	0.075		mg/Kg	1	4/5/2017 11:01:33 AM	31074
Surr: 4-Bromofluorobenzene	80.5	66.6-132		%Rec	1	4/5/2017 11:01:33 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704116

Date Reported: 4/6/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 62

**Project:** Florance GC J 16A

**Collection Date:** 4/4/2017 2:15:00 PM

**Lab ID:** 1704116-005

**Matrix:** SOIL

**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 11:40:49 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/5/2017 12:16:22 PM	31083
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2017 12:16:22 PM	31083
Surr: DNOP	85.5	70-130		%Rec	1	4/5/2017 12:16:22 PM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.8		mg/Kg	2	4/5/2017 11:27:51 AM	31074
Surr: BFB	82.4	54-150		%Rec	2	4/5/2017 11:27:51 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.039		mg/Kg	2	4/5/2017 11:27:51 AM	31074
Toluene	ND	0.078		mg/Kg	2	4/5/2017 11:27:51 AM	31074
Ethylbenzene	ND	0.078		mg/Kg	2	4/5/2017 11:27:51 AM	31074
Xylenes, Total	ND	0.16		mg/Kg	2	4/5/2017 11:27:51 AM	31074
Surr: 4-Bromofluorobenzene	95.4	66.6-132		%Rec	2	4/5/2017 11:27:51 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704116

Date Reported: 4/6/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 63

**Project:** Florance GC J 16A

**Collection Date:** 4/4/2017 2:23:00 PM

**Lab ID:** 1704116-006

**Matrix:** SOIL

**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 11:53:14 AM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/5/2017 12:40:43 PM	31083
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/5/2017 12:40:43 PM	31083
Surr: DNOP	83.7	70-130		%Rec	1	4/5/2017 12:40:43 PM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.8		mg/Kg	2	4/5/2017 11:54:09 AM	31074
Surr: BFB	85.1	54-150		%Rec	2	4/5/2017 11:54:09 AM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.039		mg/Kg	2	4/5/2017 11:54:09 AM	31074
Toluene	ND	0.078		mg/Kg	2	4/5/2017 11:54:09 AM	31074
Ethylbenzene	ND	0.078		mg/Kg	2	4/5/2017 11:54:09 AM	31074
Xylenes, Total	ND	0.16		mg/Kg	2	4/5/2017 11:54:09 AM	31074
Surr: 4-Bromofluorobenzene	97.8	66.6-132		%Rec	2	4/5/2017 11:54:09 AM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704116

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31086		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31086		RunNo:	41906				
Prep Date:	4/5/2017		Analysis Date:	4/5/2017		SeqNo:	1316637		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31086		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	31086		RunNo:	41906				
Prep Date:	4/5/2017		Analysis Date:	4/5/2017		SeqNo:	1316638		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.6	90	110				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704116

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31083		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31083		RunNo: 41862					
Prep Date:	4/5/2017		Analysis Date: 4/5/2017		SeqNo: 1315434		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.9		10.00		78.6	70	130			

Sample ID	LCS-31083		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31083		RunNo: 41862					
Prep Date:	4/5/2017		Analysis Date: 4/5/2017		SeqNo: 1315523		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	63.8	116			
Surr: DNOP	3.9		5.000		78.4	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704116

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31074		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	31074		RunNo:	41907				
Prep Date:	4/4/2017		Analysis Date:	4/5/2017		SeqNo:	1316562		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	620		1000		62.3	54	150				

Sample ID	LCS-31074		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316563		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	76.4	125			
Surr: BFB	760		1000		76.0	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704116

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31074		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316571		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.71		1.000		71.2	66.6	132			

Sample ID	LCS-31074		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316572		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.69		1.000		68.6	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1704116

RcptNo: 1

Received By: Lindsay Mangin 4/5/2017 6:45:00 AM

Completed By: Lindsay Mangin 4/5/2017 6:59:48 AM

Reviewed By: 4/5/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax	<input type="checkbox"/> In Person
Regarding:								
Client Instructions:								

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			





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

April 18, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704452

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/12/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704452**

Date Reported: **4/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 65

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 10:00:00 AM

**Lab ID:** 1704452-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 12:24:15 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/12/2017 10:19:33 AM	A42061
Surr: BFB	95.3	70-130		%Rec	1	4/12/2017 10:19:33 AM	A42061
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/12/2017 11:46:39 AM	31195
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/12/2017 11:46:39 AM	31195
Surr: DNOP	104	70-130		%Rec	1	4/12/2017 11:46:39 AM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.019		mg/Kg	1	4/12/2017 10:19:33 AM	R42061
Toluene	ND	0.037		mg/Kg	1	4/12/2017 10:19:33 AM	R42061
Ethylbenzene	ND	0.037		mg/Kg	1	4/12/2017 10:19:33 AM	R42061
Xylenes, Total	ND	0.075		mg/Kg	1	4/12/2017 10:19:33 AM	R42061
Surr: 1,2-Dichloroethane-d4	85.0	70-130		%Rec	1	4/12/2017 10:19:33 AM	R42061
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	4/12/2017 10:19:33 AM	R42061
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	4/12/2017 10:19:33 AM	R42061
Surr: Toluene-d8	111	70-130		%Rec	1	4/12/2017 10:19:33 AM	R42061

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704452**Date Reported: **4/18/2017****CLIENT:** Blagg Engineering**Client Sample ID:** AREA 64**Project:** Florance GC J 16A**Collection Date:** 4/11/2017 10:10:00 AM**Lab ID:** 1704452-002**Matrix:** MEOH (SOIL)**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 12:36:40 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	9.6	3.8		mg/Kg	1	4/12/2017 10:49:05 AM	A42061
Surr: BFB	105	70-130		%Rec	1	4/12/2017 10:49:05 AM	A42061
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	14	9.4		mg/Kg	1	4/12/2017 12:08:44 PM	31195
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/12/2017 12:08:44 PM	31195
Surr: DNOP	108	70-130		%Rec	1	4/12/2017 12:08:44 PM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.019		mg/Kg	1	4/12/2017 10:49:05 AM	R42061
Toluene	ND	0.038		mg/Kg	1	4/12/2017 10:49:05 AM	R42061
Ethylbenzene	ND	0.038		mg/Kg	1	4/12/2017 10:49:05 AM	R42061
Xylenes, Total	ND	0.077		mg/Kg	1	4/12/2017 10:49:05 AM	R42061
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%Rec	1	4/12/2017 10:49:05 AM	R42061
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	4/12/2017 10:49:05 AM	R42061
Surr: Dibromofluoromethane	95.3	70-130		%Rec	1	4/12/2017 10:49:05 AM	R42061
Surr: Toluene-d8	118	70-130		%Rec	1	4/12/2017 10:49:05 AM	R42061

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704452

Date Reported: 4/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 57 (DEEP)

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 10:17:00 AM

**Lab ID:** 1704452-003

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 12:49:04 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/12/2017 11:18:14 AM	A42061
Surr: BFB	102	70-130		%Rec	1	4/12/2017 11:18:14 AM	A42061
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/12/2017 12:30:42 PM	31195
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/12/2017 12:30:42 PM	31195
Surr: DNOP	109	70-130		%Rec	1	4/12/2017 12:30:42 PM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.019		mg/Kg	1	4/12/2017 11:18:14 AM	R42061
Toluene	ND	0.038		mg/Kg	1	4/12/2017 11:18:14 AM	R42061
Ethylbenzene	ND	0.038		mg/Kg	1	4/12/2017 11:18:14 AM	R42061
Xylenes, Total	ND	0.076		mg/Kg	1	4/12/2017 11:18:14 AM	R42061
Surr: 1,2-Dichloroethane-d4	82.3	70-130		%Rec	1	4/12/2017 11:18:14 AM	R42061
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	4/12/2017 11:18:14 AM	R42061
Surr: Dibromofluoromethane	91.0	70-130		%Rec	1	4/12/2017 11:18:14 AM	R42061
Surr: Toluene-d8	111	70-130		%Rec	1	4/12/2017 11:18:14 AM	R42061

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704452**

Date Reported: **4/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 57 (SHALLOW)

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 10:20:00 AM

**Lab ID:** 1704452-004

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 1:01:29 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/12/2017 11:47:19 AM	A42061
Surr: BFB	95.8	70-130		%Rec	1	4/12/2017 11:47:19 AM	A42061
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/12/2017 12:52:40 PM	31195
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/12/2017 12:52:40 PM	31195
Surr: DNOP	106	70-130		%Rec	1	4/12/2017 12:52:40 PM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.021		mg/Kg	1	4/12/2017 11:47:19 AM	R42061
Toluene	ND	0.043		mg/Kg	1	4/12/2017 11:47:19 AM	R42061
Ethylbenzene	ND	0.043		mg/Kg	1	4/12/2017 11:47:19 AM	R42061
Xylenes, Total	ND	0.085		mg/Kg	1	4/12/2017 11:47:19 AM	R42061
Surr: 1,2-Dichloroethane-d4	81.8	70-130		%Rec	1	4/12/2017 11:47:19 AM	R42061
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/12/2017 11:47:19 AM	R42061
Surr: Dibromofluoromethane	91.3	70-130		%Rec	1	4/12/2017 11:47:19 AM	R42061
Surr: Toluene-d8	109	70-130		%Rec	1	4/12/2017 11:47:19 AM	R42061

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704452**

Date Reported: **4/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 54 (DEEP)

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 10:23:00 AM

**Lab ID:** 1704452-005

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 1:13:54 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2017 10:40:56 AM	31248
Surr: BFB	108	70-130		%Rec	1	4/17/2017 10:40:56 AM	31248
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/12/2017 1:14:58 PM	31195
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/12/2017 1:14:58 PM	31195
Surr: DNOP	107	70-130		%Rec	1	4/12/2017 1:14:58 PM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	4/17/2017 10:40:56 AM	31248
Toluene	ND	0.048		mg/Kg	1	4/17/2017 10:40:56 AM	31248
Ethylbenzene	ND	0.048		mg/Kg	1	4/17/2017 10:40:56 AM	31248
Xylenes, Total	ND	0.097		mg/Kg	1	4/17/2017 10:40:56 AM	31248
Surr: 1,2-Dichloroethane-d4	83.5	70-130		%Rec	1	4/17/2017 10:40:56 AM	31248
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/17/2017 10:40:56 AM	31248
Surr: Dibromofluoromethane	83.5	70-130		%Rec	1	4/17/2017 10:40:56 AM	31248
Surr: Toluene-d8	102	70-130		%Rec	1	4/17/2017 10:40:56 AM	31248

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704452

Date Reported: 4/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** AREA 54 (SHALLOW)

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 10:29:00 AM

**Lab ID:** 1704452-006

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 1:26:19 PM	31203
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	500	25		mg/Kg	5	4/17/2017 11:09:26 AM	31248
Surr: BFB	116	70-130		%Rec	5	4/17/2017 11:09:26 AM	31248
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1400	19		mg/Kg	2	4/12/2017 2:21:09 PM	31195
Motor Oil Range Organics (MRO)	260	93		mg/Kg	2	4/12/2017 2:21:09 PM	31195
Surr: DNOP	122	70-130		%Rec	2	4/12/2017 2:21:09 PM	31195
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.12		mg/Kg	5	4/17/2017 11:09:26 AM	31248
Toluene	ND	0.25		mg/Kg	5	4/17/2017 11:09:26 AM	31248
Ethylbenzene	ND	0.25		mg/Kg	5	4/17/2017 11:09:26 AM	31248
Xylenes, Total	8.1	0.50		mg/Kg	5	4/17/2017 11:09:26 AM	31248
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%Rec	5	4/17/2017 11:09:26 AM	31248
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	4/17/2017 11:09:26 AM	31248
Surr: Dibromofluoromethane	87.6	70-130		%Rec	5	4/17/2017 11:09:26 AM	31248
Surr: Toluene-d8	100	70-130		%Rec	5	4/17/2017 11:09:26 AM	31248

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31203		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31203		RunNo:	42066				
Prep Date:	4/12/2017		Analysis Date:	4/12/2017		SeqNo:	1322090		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31203			SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS			Batch ID:	31203		RunNo:	42066			
Prep Date:	4/12/2017			Analysis Date:	4/12/2017		SeqNo:	1322091		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.9	90	110				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31195		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31195		RunNo: 42045					
Prep Date:	4/12/2017		Analysis Date: 4/12/2017		SeqNo: 1320584		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	97.1	63.8	116			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-31195	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31195			RunNo: 42045					
Prep Date:	4/12/2017	Analysis Date: 4/12/2017			SeqNo: 1320585		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	70	130			

Sample ID	1704452-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	AREA 65		Batch ID: 31195		RunNo: 42045					
Prep Date:	4/12/2017		Analysis Date: 4/12/2017		SeqNo: 1321290		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.80	5.578	86.0	51.6	130			
Surr: DNOP	5.0		4.980		99.6	70	130			

Sample ID	1704452-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	AREA 65		Batch ID:	31195		RunNo:	42045				
Prep Date:	4/12/2017		Analysis Date:	4/12/2017		SeqNo:	1321298		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51	9.7	48.69	5.578	92.7	51.6	130	4.71	20		
Surr: DNOP	5.1		4.869		105	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R42061</b>		RunNo: <b>42061</b>							
Prep Date:	Analysis Date: <b>4/12/2017</b>		SeqNo: <b>1321103</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.9	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R42061</b>		RunNo: <b>42061</b>							
Prep Date:	Analysis Date: <b>4/12/2017</b>		SeqNo: <b>1321840</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.8	70	130			
Toluene	0.94	0.050	1.000	0	93.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.9	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		112	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.6	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Sample ID <b>1704452-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>AREA 64</b>	Batch ID: <b>R42061</b>		RunNo: <b>42100</b>							
Prep Date:	Analysis Date: <b>4/13/2017</b>		SeqNo: <b>1322432</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7663	0	91.0	61.9	146	3.85	20	
Toluene	0.84	0.038	0.7663	0.006069	109	70	130	6.68	20	
Surr: 1,2-Dichloroethane-d4	0.31		0.3832		81.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.37		0.3832		97.5	70	130	0	0	
Surr: Dibromofluoromethane	0.35		0.3832		90.2	70	130	0	0	
Surr: Toluene-d8	0.43		0.3832		113	70	130	0	0	

Sample ID <b>mb-31248</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31248</b>		RunNo: <b>42156</b>							
Prep Date: <b>4/14/2017</b>	Analysis Date: <b>4/17/2017</b>		SeqNo: <b>1324765</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	mb-31248		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 31248		RunNo: 42156					
Prep Date:	4/14/2017		Analysis Date: 4/17/2017		SeqNo: 1324765		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.1	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.2	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID	lcs-31248		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 31248		RunNo: 42156					
Prep Date:	4/14/2017		Analysis Date: 4/17/2017		SeqNo: 1324766		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.0	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.2	70	130			
Surr: Toluene-d8	0.50		0.5000		99.1	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	A42061	RunNo:	42061					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321112	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	490		500.0		98.8	70	130			

Sample ID	1704452-001AMSD	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	AREA 65	Batch ID:	A42061	RunNo:	42061					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321819	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	3.7	18.70	1.466	107	63.2	128			
Surr: BFB	360		374.0		95.2	70	130			

Sample ID	1704452-001AMS	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	AREA 65	Batch ID:	A42061	RunNo:	42061					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321820	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	3.7	18.70	1.466	113	63.2	128	4.83	20	
Surr: BFB	350		374.0		92.6	70	130	0	0	

Sample ID	2.5 gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	A42061	RunNo:	42061					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321834	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	70	130			
Surr: BFB	490		500.0		97.1	70	130			

Sample ID	mb-31248	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	31248	RunNo:	42156					
Prep Date:	4/14/2017	Analysis Date:	4/17/2017	SeqNo:	1324773	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	530		500.0		106	70	130			

Sample ID	lcs-31248	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	31248	RunNo:	42156					
Prep Date:	4/14/2017	Analysis Date:	4/17/2017	SeqNo:	1324774	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704452

18-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	lcs-31248		SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range				
Client ID:	LCSS		Batch ID: 31248			RunNo: 42156				
Prep Date:	4/14/2017		Analysis Date: 4/17/2017			SeqNo: 1324774		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	540		500.0		109	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704452**

RcptNo: 1

Received By: **Lindsay Mangin** 4/12/2017 7:00:00 AM

*Lindsay Mangin*

Completed By: **Lindsay Mangin** 4/12/2017 7:28:22 AM

*Lindsay Mangin*

Reviewed By: **ENM** 04/12/17

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: ☐  
( $<2$  or  $>12$  unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

## Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

# Chain-of-Custody Record

Client: BP America

Blagg Engineering Inc

Mailing Address:

Turn-Around Time:

SAME DAY

☐ Standard ☒ Rush

Project Name:

FLUORIDE GC J 16A

Project #:

Phone #: (505) 320-1183

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Project Manager:

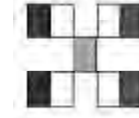
J. Blagg

Sampler: J. Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.5

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
4/1/07	1000	Soil	AREA 59 65	402-21	COOL	1704452
	1010		AREA 58 64			-001
	1017		AREA 57 (DEEP)			-002
	1020		AREA 57 (shallow)			-003
	1023		AREA 54 (DEEP)			-004
	1029		AREA 54 (shallow)			-005
						-006



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + TPH (Gas only)	X	BTEX + MTBE + TPH (8021)	
BTEX + MTBE + TPH (MRO)	X	TPH (Method 418.1)	
TPH 8015B (GRO / DRO / MRO)		EDB (Method 504.1)	
PAHs (8310 or 8270 SIMS)		RCRA 8 Metals	
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCB's	
8260B (VOA)		8270 (Semi-VOA)	
CHLORIDE	X	Air Bubbles (Y or N)	

Remarks: Bin BP contact: Steve Mearl

VID: V-HIXONEVRM

WISSE ELEMENT: LI-0018N-E: FURNACE J 16A

for TALS sample size = Area 61 sample 2 = Area 64 of 8/15

Received by: Blagg Date: 4/11/07 Time: 1740

Received by: Blagg Date: 04/12/07 Time: 0700

Relinquished by: J. Blagg Date: 4/1/07 Time: 1740

Relinquished by: Blagg Date: 4/1/07 Time: 1836

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 13, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704453

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/12/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704453**Date Reported: **4/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** Trench-Point 1**Project:** Florance GC J 16A**Collection Date:** 4/11/2017 10:58:00 AM**Lab ID:** 1704453-001**Matrix:** MEOH (SOIL)**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 1:38:43 PM	31203
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1100	19		mg/Kg	2	4/12/2017 1:58:54 PM	31195
Motor Oil Range Organics (MRO)	170	97		mg/Kg	2	4/12/2017 1:58:54 PM	31195
Surr: DNOP	120	70-130		%Rec	2	4/12/2017 1:58:54 PM	31195
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	140	20		mg/Kg	5	4/12/2017 9:40:40 AM	SG4206C
Surr: BFB	286	54-150	S	%Rec	5	4/12/2017 9:40:40 AM	SG4206C
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.10		mg/Kg	5	4/12/2017 9:40:40 AM	SB4206C
Toluene	ND	0.20		mg/Kg	5	4/12/2017 9:40:40 AM	SB4206C
Ethylbenzene	0.36	0.20		mg/Kg	5	4/12/2017 9:40:40 AM	SB4206C
Xylenes, Total	3.3	0.40		mg/Kg	5	4/12/2017 9:40:40 AM	SB4206C
Surr: 4-Bromofluorobenzene	129	66.6-132		%Rec	5	4/12/2017 9:40:40 AM	SB4206C

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704453

Date Reported: 4/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** Trench-Point 2

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 11:05:00 AM

**Lab ID:** 1704453-002

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 1:51:08 PM	31203
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	280	9.6		mg/Kg	1	4/12/2017 10:17:48 AM	31195
Motor Oil Range Organics (MRO)	59	48		mg/Kg	1	4/12/2017 10:17:48 AM	31195
Surr: DNOP	111	70-130		%Rec	1	4/12/2017 10:17:48 AM	31195
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	26	20		mg/Kg	5	4/12/2017 10:04:06 AM	SG4206C
Surr: BFB	134	54-150		%Rec	5	4/12/2017 10:04:06 AM	SG4206C
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.10		mg/Kg	5	4/12/2017 10:04:06 AM	SB4206C
Toluene	ND	0.20		mg/Kg	5	4/12/2017 10:04:06 AM	SB4206C
Ethylbenzene	ND	0.20		mg/Kg	5	4/12/2017 10:04:06 AM	SB4206C
Xylenes, Total	ND	0.40		mg/Kg	5	4/12/2017 10:04:06 AM	SB4206C
Surr: 4-Bromofluorobenzene	121	66.6-132		%Rec	5	4/12/2017 10:04:06 AM	SB4206C

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704453**Date Reported: **4/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** Trench-Point 3**Project:** Florance GC J 16A**Collection Date:** 4/11/2017 11:09:00 AM**Lab ID:** 1704453-003**Matrix:** MEOH (SOIL)**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	1.5		mg/Kg	1	4/12/2017 2:28:21 PM	31203
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	310	10		mg/Kg	1	4/12/2017 10:40:01 AM	31195
Motor Oil Range Organics (MRO)	77	50		mg/Kg	1	4/12/2017 10:40:01 AM	31195
Surr: DNOP	111	70-130		%Rec	1	4/12/2017 10:40:01 AM	31195
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	4/12/2017 10:27:30 AM	SG4206C
Surr: BFB	120	54-150		%Rec	5	4/12/2017 10:27:30 AM	SG4206C
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.096		mg/Kg	5	4/12/2017 10:27:30 AM	SB4206C
Toluene	ND	0.19		mg/Kg	5	4/12/2017 10:27:30 AM	SB4206C
Ethylbenzene	ND	0.19		mg/Kg	5	4/12/2017 10:27:30 AM	SB4206C
Xylenes, Total	ND	0.38		mg/Kg	5	4/12/2017 10:27:30 AM	SB4206C
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	5	4/12/2017 10:27:30 AM	SB4206C

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704453

Date Reported: 4/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** Trench-Point 4

**Project:** Florance GC J 16A

**Collection Date:** 4/11/2017 11:12:00 AM

**Lab ID:** 1704453-004

**Matrix:** MEOH (SOIL)

**Received Date:** 4/12/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/12/2017 2:40:45 PM	31203
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	420	9.2		mg/Kg	1	4/12/2017 11:02:17 AM	31195
Motor Oil Range Organics (MRO)	95	46		mg/Kg	1	4/12/2017 11:02:17 AM	31195
Surr: DNOP	114	70-130		%Rec	1	4/12/2017 11:02:17 AM	31195
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	56	20		mg/Kg	5	4/12/2017 10:51:02 AM	SG4206C
Surr: BFB	179	54-150	S	%Rec	5	4/12/2017 10:51:02 AM	SG4206C
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.099		mg/Kg	5	4/12/2017 10:51:02 AM	SB4206C
Toluene	ND	0.20		mg/Kg	5	4/12/2017 10:51:02 AM	SB4206C
Ethylbenzene	ND	0.20		mg/Kg	5	4/12/2017 10:51:02 AM	SB4206C
Xylenes, Total	0.86	0.40		mg/Kg	5	4/12/2017 10:51:02 AM	SB4206C
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	5	4/12/2017 10:51:02 AM	SB4206C

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704453

13-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31203		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31203		RunNo:	42066				
Prep Date:	4/12/2017		Analysis Date:	4/12/2017		SeqNo:	1322090		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31203		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31203		RunNo: 42066					
Prep Date:	4/12/2017		Analysis Date: 4/12/2017		SeqNo: 1322091		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704453

13-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31195		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31195		RunNo: 42045					
Prep Date:	4/12/2017		Analysis Date: 4/12/2017		SeqNo: 1320584		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	97.1	63.8	116			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-31195	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31195			RunNo: 42045					
Prep Date:	4/12/2017	Analysis Date: 4/12/2017			SeqNo: 1320585		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704453

13-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	SG42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321736	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	910		1000		91.4	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	SG42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321737	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	76.4	125			
Surr: BFB	990		1000		99.1	54	150			

Sample ID	1704453-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Trench-Point 1	Batch ID:	SG42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321738	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	280	20	99.68	142.5	134	61.3	150			
Surr: BFB	13000		3987		324	54	150			S

Sample ID	1704453-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Trench-Point 1	Batch ID:	SG42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321739	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	270	20	99.68	142.5	132	61.3	150	0.797	20	
Surr: BFB	13000		3987		325	54	150	0	0	S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704453

13-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	SB42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321763	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		115	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	SB42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321764	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID	1704453-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	Trench-Point 2	Batch ID:	SB42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321765	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	5.3	0.10	4.049	0	130	61.5	138			
Toluene	4.9	0.20	4.049	0	120	71.4	127			
Ethylbenzene	4.9	0.20	4.049	0	120	70.9	132			
Xylenes, Total	13	0.40	12.15	0.2811	108	76.2	123			
Surr: 4-Bromofluorobenzene	5.0		4.049		123	66.6	132			

Sample ID	1704453-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	Trench-Point 2	Batch ID:	SB42060	RunNo:	42060					
Prep Date:		Analysis Date:	4/12/2017	SeqNo:	1321766	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	5.2	0.10	4.049	0	128	61.5	138	1.30	20	
Toluene	4.9	0.20	4.049	0	121	71.4	127	0.389	20	
Ethylbenzene	4.8	0.20	4.049	0	118	70.9	132	1.58	20	
Xylenes, Total	13	0.40	12.15	0.2811	107	76.2	123	1.33	20	
Surr: 4-Bromofluorobenzene	5.0		4.049		125	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704453**

RcptNo: **1**

Received By: **Lindsay Mangin** 4/12/2017 7:00:00 AM

Completed By: **Lindsay Mangin** 4/12/2017 7:35:33 AM

Reviewed By: **ENM** 04/12/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			





## Appendix C

### Treated Soil Pile Laboratory Analytical Data Reports



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

January 18, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701592

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 10 sample(s) on 1/14/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701592

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 1

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:48:00 PM

**Lab ID:** 1701592-001

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 2:06:03 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	10		mg/Kg	1	1/17/2017 12:45:00 PM	29711
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/17/2017 12:45:00 PM	29711
Surr: DNOP	97.8	70-130		%Rec	1	1/17/2017 12:45:00 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	32	4.8		mg/Kg	1	1/17/2017 2:41:03 PM	29708
Surr: BFB	312	68.3-144	S	%Rec	1	1/17/2017 2:41:03 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 2:41:03 PM	29708
Toluene	ND	0.048		mg/Kg	1	1/17/2017 2:41:03 PM	29708
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2017 2:41:03 PM	29708
Xylenes, Total	0.12	0.096		mg/Kg	1	1/17/2017 2:41:03 PM	29708
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	1/17/2017 2:41:03 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701592

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 2

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:52:00 PM

**Lab ID:** 1701592-002

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 2:43:17 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	40	9.3		mg/Kg	1	1/17/2017 1:06:35 PM	29711
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/17/2017 1:06:35 PM	29711
Surr: DNOP	98.3	70-130		%Rec	1	1/17/2017 1:06:35 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	41	4.7		mg/Kg	1	1/17/2017 3:04:37 PM	29708
Surr: BFB	408	68.3-144	S	%Rec	1	1/17/2017 3:04:37 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 3:04:37 PM	29708
Toluene	ND	0.047		mg/Kg	1	1/17/2017 3:04:37 PM	29708
Ethylbenzene	ND	0.047		mg/Kg	1	1/17/2017 3:04:37 PM	29708
Xylenes, Total	0.11	0.095		mg/Kg	1	1/17/2017 3:04:37 PM	29708
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	1/17/2017 3:04:37 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 3

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:55:00 PM

**Lab ID:** 1701592-003

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:20:30 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.9		mg/Kg	1	1/17/2017 1:27:59 PM	29711
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/17/2017 1:27:59 PM	29711
Surr: DNOP	104	70-130		%Rec	1	1/17/2017 1:27:59 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	40	4.6		mg/Kg	1	1/17/2017 3:28:15 PM	29708
Surr: BFB	388	68.3-144	S	%Rec	1	1/17/2017 3:28:15 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	1/17/2017 3:28:15 PM	29708
Toluene	ND	0.046		mg/Kg	1	1/17/2017 3:28:15 PM	29708
Ethylbenzene	ND	0.046		mg/Kg	1	1/17/2017 3:28:15 PM	29708
Xylenes, Total	0.17	0.093		mg/Kg	1	1/17/2017 3:28:15 PM	29708
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	1/17/2017 3:28:15 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 4

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 1:58:00 PM

**Lab ID:** 1701592-004

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:32:54 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	10		mg/Kg	1	1/17/2017 1:49:50 PM	29711
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/17/2017 1:49:50 PM	29711
Surr: DNOP	98.9	70-130		%Rec	1	1/17/2017 1:49:50 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	36	4.8		mg/Kg	1	1/17/2017 3:51:53 PM	29708
Surr: BFB	387	68.3-144	S	%Rec	1	1/17/2017 3:51:53 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 3:51:53 PM	29708
Toluene	ND	0.048		mg/Kg	1	1/17/2017 3:51:53 PM	29708
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2017 3:51:53 PM	29708
Xylenes, Total	0.11	0.096		mg/Kg	1	1/17/2017 3:51:53 PM	29708
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	1/17/2017 3:51:53 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 5

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:02:00 PM

**Lab ID:** 1701592-005

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:45:18 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	14	9.8		mg/Kg	1	1/17/2017 2:11:26 PM	29711
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/17/2017 2:11:26 PM	29711
Surr: DNOP	99.2	70-130		%Rec	1	1/17/2017 2:11:26 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	38	4.9		mg/Kg	1	1/17/2017 4:15:20 PM	29708
Surr: BFB	390	68.3-144	S	%Rec	1	1/17/2017 4:15:20 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 4:15:20 PM	29708
Toluene	ND	0.049		mg/Kg	1	1/17/2017 4:15:20 PM	29708
Ethylbenzene	ND	0.049		mg/Kg	1	1/17/2017 4:15:20 PM	29708
Xylenes, Total	0.12	0.098		mg/Kg	1	1/17/2017 4:15:20 PM	29708
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	1/17/2017 4:15:20 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 6

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:06:00 PM

**Lab ID:** 1701592-006

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:57:42 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	25	9.9		mg/Kg	1	1/17/2017 2:33:02 PM	29711
Motor Oil Range Organics (MRO)	61	49		mg/Kg	1	1/17/2017 2:33:02 PM	29711
Surr: DNOP	99.4	70-130		%Rec	1	1/17/2017 2:33:02 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	27	4.8		mg/Kg	1	1/17/2017 4:38:49 PM	29708
Surr: BFB	295	68.3-144	S	%Rec	1	1/17/2017 4:38:49 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 4:38:49 PM	29708
Toluene	ND	0.048		mg/Kg	1	1/17/2017 4:38:49 PM	29708
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2017 4:38:49 PM	29708
Xylenes, Total	0.11	0.095		mg/Kg	1	1/17/2017 4:38:49 PM	29708
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	1/17/2017 4:38:49 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701592

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 7

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:21:00 PM

**Lab ID:** 1701592-007

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 4:10:07 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	250	10		mg/Kg	1	1/17/2017 2:54:33 PM	29711
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	1/17/2017 2:54:33 PM	29711
Surr: DNOP	105	70-130		%Rec	1	1/17/2017 2:54:33 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	44	4.8		mg/Kg	1	1/17/2017 5:02:17 PM	29708
Surr: BFB	410	68.3-144	S	%Rec	1	1/17/2017 5:02:17 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 5:02:17 PM	29708
Toluene	ND	0.048		mg/Kg	1	1/17/2017 5:02:17 PM	29708
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2017 5:02:17 PM	29708
Xylenes, Total	0.26	0.096		mg/Kg	1	1/17/2017 5:02:17 PM	29708
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	1/17/2017 5:02:17 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 8

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:18:00 PM

**Lab ID:** 1701592-008

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 4:22:31 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	230	9.9		mg/Kg	1	1/17/2017 3:16:11 PM	29711
Motor Oil Range Organics (MRO)	130	49		mg/Kg	1	1/17/2017 3:16:11 PM	29711
Surr: DNOP	104	70-130		%Rec	1	1/17/2017 3:16:11 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	45	4.8		mg/Kg	1	1/17/2017 5:25:43 PM	29708
Surr: BFB	431	68.3-144	S	%Rec	1	1/17/2017 5:25:43 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 5:25:43 PM	29708
Toluene	ND	0.048		mg/Kg	1	1/17/2017 5:25:43 PM	29708
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2017 5:25:43 PM	29708
Xylenes, Total	0.20	0.095		mg/Kg	1	1/17/2017 5:25:43 PM	29708
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	1/17/2017 5:25:43 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 9

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:15:00 PM

**Lab ID:** 1701592-009

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 4:34:56 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	400	9.7		mg/Kg	1	1/17/2017 3:37:42 PM	29711
Motor Oil Range Organics (MRO)	190	49		mg/Kg	1	1/17/2017 3:37:42 PM	29711
Surr: DNOP	106	70-130		%Rec	1	1/17/2017 3:37:42 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	61	4.7		mg/Kg	1	1/17/2017 9:43:50 PM	29708
Surr: BFB	527	68.3-144	S	%Rec	1	1/17/2017 9:43:50 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 9:43:50 PM	29708
Toluene	ND	0.047		mg/Kg	1	1/17/2017 9:43:50 PM	29708
Ethylbenzene	ND	0.047		mg/Kg	1	1/17/2017 9:43:50 PM	29708
Xylenes, Total	0.43	0.095		mg/Kg	1	1/17/2017 9:43:50 PM	29708
Surr: 4-Bromofluorobenzene	120	80-120	S	%Rec	1	1/17/2017 9:43:50 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701592**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** BP-TSP 10

**Project:** Florance GC J 16A

**Collection Date:** 1/13/2017 2:12:00 PM

**Lab ID:** 1701592-010

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 4:47:21 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	400	9.6		mg/Kg	1	1/17/2017 3:59:23 PM	29711
Motor Oil Range Organics (MRO)	200	48		mg/Kg	1	1/17/2017 3:59:23 PM	29711
Surr: DNOP	109	70-130		%Rec	1	1/17/2017 3:59:23 PM	29711
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	61	4.7		mg/Kg	1	1/17/2017 10:07:12 PM	29708
Surr: BFB	537	68.3-144	S	%Rec	1	1/17/2017 10:07:12 PM	29708
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/17/2017 10:07:12 PM	29708
Toluene	ND	0.047		mg/Kg	1	1/17/2017 10:07:12 PM	29708
Ethylbenzene	ND	0.047		mg/Kg	1	1/17/2017 10:07:12 PM	29708
Xylenes, Total	0.34	0.095		mg/Kg	1	1/17/2017 10:07:12 PM	29708
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	1	1/17/2017 10:07:12 PM	29708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701592

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29727		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29727		RunNo:	40074				
Prep Date:	1/16/2017		Analysis Date:	1/17/2017		SeqNo:	1256647		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29727		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29727		RunNo: 40074					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256648		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.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701592

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29708		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29708		RunNo: 40079					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256299		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	840		1000		84.0	68.3	144			

Sample ID	LCS-29708		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29708		RunNo: 40079					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256300		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	104	74.6	123			
Surr: BFB	930		1000		93.3	68.3	144			

Sample ID	1701592-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BP-TSP 1		Batch ID: 29708		RunNo: 40079					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256302		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	4.7	23.41	31.51	42.4	61.3	150			S
Surr: BFB	2300		936.3		251	68.3	144			S

Sample ID	1701592-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BP-TSP 1		Batch ID: 29708		RunNo: 40079					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256303		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	63	4.7	23.47	31.51	134	61.3	150	41.2	20	R
Surr: BFB	3200		939.0		346	68.3	144	0	0	S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701592

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	<b>MB-29708</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29708</b>		RunNo:	<b>40079</b>			
Prep Date:	<b>1/16/2017</b>		Analysis Date:	<b>1/17/2017</b>		SeqNo:	<b>1256328</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.5	80	120			

Sample ID	<b>LCS-29708</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29708</b>		RunNo:	<b>40079</b>			
Prep Date:	<b>1/16/2017</b>		Analysis Date:	<b>1/17/2017</b>		SeqNo:	<b>1256329</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	99.8	75.2	115			
Toluene	0.93	0.050	1.000	0	93.5	80.7	112			
Ethylbenzene	0.91	0.050	1.000	0	91.4	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	91.7	79.2	115			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.4	80	120			

Sample ID	<b>1701592-002AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>BP-TSP 2</b>		Batch ID:	<b>29708</b>		RunNo:	<b>40079</b>			
Prep Date:	<b>1/16/2017</b>		Analysis Date:	<b>1/17/2017</b>		SeqNo:	<b>1256333</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9681	0	103	61.5	138			
Toluene	1.0	0.048	0.9681	0	105	71.4	127			
Ethylbenzene	1.0	0.048	0.9681	0	108	70.9	132			
Xylenes, Total	3.2	0.097	2.904	0.1055	106	76.2	123			
Surr: 4-Bromofluorobenzene	1.1		0.9681		115	80	120			

Sample ID	<b>1701592-002AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>BP-TSP 2</b>		Batch ID:	<b>29708</b>		RunNo:	<b>40079</b>			
Prep Date:	<b>1/16/2017</b>		Analysis Date:	<b>1/17/2017</b>		SeqNo:	<b>1256334</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9416	0	108	61.5	138	2.44	20	
Toluene	1.0	0.047	0.9416	0	106	71.4	127	2.07	20	
Ethylbenzene	1.0	0.047	0.9416	0	107	70.9	132	3.68	20	
Xylenes, Total	3.1	0.094	2.825	0.1055	106	76.2	123	2.98	20	
Surr: 4-Bromofluorobenzene	1.1		0.9416		113	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701592**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

1/14/2017 9:00:00 AM

Completed By: **Lindsay Mangin**

1/14/2017 10:25:52 AM

Reviewed By:

01/16/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	1.6	Good	Yes			





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

January 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701928

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 12 sample(s) on 1/21/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-11

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 10:38:00 AM

**Lab ID:** 1701928-001

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 9:18:47 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	74	3.4		mg/Kg	1	1/21/2017 7:47:20 PM	C40186
Surr: BFB	128	70-130		%Rec	1	1/21/2017 7:47:20 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	360	10		mg/Kg	1	1/23/2017 10:10:55 AM	29817
Motor Oil Range Organics (MRO)	240	51		mg/Kg	1	1/23/2017 10:10:55 AM	29817
Surr: DNOP	111	70-130		%Rec	1	1/23/2017 10:10:55 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	1/21/2017 7:47:20 PM	A40186
Toluene	ND	0.034		mg/Kg	1	1/21/2017 7:47:20 PM	A40186
Ethylbenzene	ND	0.034		mg/Kg	1	1/21/2017 7:47:20 PM	A40186
Xylenes, Total	ND	0.068		mg/Kg	1	1/21/2017 7:47:20 PM	A40186
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	1/21/2017 7:47:20 PM	A40186
Surr: 4-Bromofluorobenzene	130	70-130	S	%Rec	1	1/21/2017 7:47:20 PM	A40186
Surr: Dibromofluoromethane	86.6	70-130		%Rec	1	1/21/2017 7:47:20 PM	A40186
Surr: Toluene-d8	102	70-130		%Rec	1	1/21/2017 7:47:20 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-12

Project: Florance GC J 16A

Collection Date: 1/20/2017 10:41:00 AM

Lab ID: 1701928-002

Matrix: MEOH (SOIL)

Received Date: 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 9:31:11 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	71	3.4		mg/Kg	1	1/21/2017 8:16:06 PM	C40186
Surr: BFB	129	70-130		%Rec	1	1/21/2017 8:16:06 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	320	9.7		mg/Kg	1	1/23/2017 10:33:59 AM	29817
Motor Oil Range Organics (MRO)	290	49		mg/Kg	1	1/23/2017 10:33:59 AM	29817
Surr: DNOP	114	70-130		%Rec	1	1/23/2017 10:33:59 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	1/21/2017 8:16:06 PM	A40186
Toluene	ND	0.034		mg/Kg	1	1/21/2017 8:16:06 PM	A40186
Ethylbenzene	ND	0.034		mg/Kg	1	1/21/2017 8:16:06 PM	A40186
Xylenes, Total	ND	0.067		mg/Kg	1	1/21/2017 8:16:06 PM	A40186
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%Rec	1	1/21/2017 8:16:06 PM	A40186
Surr: 4-Bromofluorobenzene	134	70-130	S	%Rec	1	1/21/2017 8:16:06 PM	A40186
Surr: Dibromofluoromethane	90.0	70-130		%Rec	1	1/21/2017 8:16:06 PM	A40186
Surr: Toluene-d8	102	70-130		%Rec	1	1/21/2017 8:16:06 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-13

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 10:44:00 AM

**Lab ID:** 1701928-003

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 9:43:35 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	84	3.7		mg/Kg	1	1/21/2017 8:44:55 PM	C40186
Surr: BFB	130	70-130	S	%Rec	1	1/21/2017 8:44:55 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	380	9.8		mg/Kg	1	1/23/2017 10:57:12 AM	29817
Motor Oil Range Organics (MRO)	250	49		mg/Kg	1	1/23/2017 10:57:12 AM	29817
Surr: DNOP	112	70-130		%Rec	1	1/23/2017 10:57:12 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/21/2017 8:44:55 PM	A40186
Toluene	ND	0.037		mg/Kg	1	1/21/2017 8:44:55 PM	A40186
Ethylbenzene	ND	0.037		mg/Kg	1	1/21/2017 8:44:55 PM	A40186
Xylenes, Total	ND	0.073		mg/Kg	1	1/21/2017 8:44:55 PM	A40186
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%Rec	1	1/21/2017 8:44:55 PM	A40186
Surr: 4-Bromofluorobenzene	133	70-130	S	%Rec	1	1/21/2017 8:44:55 PM	A40186
Surr: Dibromofluoromethane	89.0	70-130		%Rec	1	1/21/2017 8:44:55 PM	A40186
Surr: Toluene-d8	99.2	70-130		%Rec	1	1/21/2017 8:44:55 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701928**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-14

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 10:49:00 AM

**Lab ID:** 1701928-004

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 9:55:59 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	73	3.5		mg/Kg	1	1/21/2017 9:13:46 PM	C40186
Surr: BFB	127	70-130		%Rec	1	1/21/2017 9:13:46 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	360	9.6		mg/Kg	1	1/23/2017 11:20:25 AM	29817
Motor Oil Range Organics (MRO)	180	48		mg/Kg	1	1/23/2017 11:20:25 AM	29817
Surr: DNOP	114	70-130		%Rec	1	1/23/2017 11:20:25 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/21/2017 9:13:46 PM	A40186
Toluene	ND	0.035		mg/Kg	1	1/21/2017 9:13:46 PM	A40186
Ethylbenzene	ND	0.035		mg/Kg	1	1/21/2017 9:13:46 PM	A40186
Xylenes, Total	ND	0.070		mg/Kg	1	1/21/2017 9:13:46 PM	A40186
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%Rec	1	1/21/2017 9:13:46 PM	A40186
Surr: 4-Bromofluorobenzene	130	70-130		%Rec	1	1/21/2017 9:13:46 PM	A40186
Surr: Dibromofluoromethane	86.8	70-130		%Rec	1	1/21/2017 9:13:46 PM	A40186
Surr: Toluene-d8	99.1	70-130		%Rec	1	1/21/2017 9:13:46 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701928**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-15

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 10:53:00 AM

**Lab ID:** 1701928-005

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:08:23 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	73	3.4		mg/Kg	1	1/21/2017 9:42:28 PM	C40186
Surr: BFB	125	70-130		%Rec	1	1/21/2017 9:42:28 PM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	330	9.6		mg/Kg	1	1/23/2017 11:43:44 AM	29817
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	1/23/2017 11:43:44 AM	29817
Surr: DNOP	115	70-130		%Rec	1	1/23/2017 11:43:44 AM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	1/21/2017 9:42:28 PM	A40186
Toluene	ND	0.034		mg/Kg	1	1/21/2017 9:42:28 PM	A40186
Ethylbenzene	ND	0.034		mg/Kg	1	1/21/2017 9:42:28 PM	A40186
Xylenes, Total	ND	0.067		mg/Kg	1	1/21/2017 9:42:28 PM	A40186
Surr: 1,2-Dichloroethane-d4	85.7	70-130		%Rec	1	1/21/2017 9:42:28 PM	A40186
Surr: 4-Bromofluorobenzene	134	70-130	S	%Rec	1	1/21/2017 9:42:28 PM	A40186
Surr: Dibromofluoromethane	84.6	70-130		%Rec	1	1/21/2017 9:42:28 PM	A40186
Surr: Toluene-d8	99.4	70-130		%Rec	1	1/21/2017 9:42:28 PM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-16

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 10:57:00 AM

**Lab ID:** 1701928-006

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:20:48 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	76	3.6		mg/Kg	1	1/22/2017 1:03:51 AM	C40186
Surr: BFB	126	70-130		%Rec	1	1/22/2017 1:03:51 AM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	370	10		mg/Kg	1	1/23/2017 12:07:03 PM	29817
Motor Oil Range Organics (MRO)	200	51		mg/Kg	1	1/23/2017 12:07:03 PM	29817
Surr: DNOP	116	70-130		%Rec	1	1/23/2017 12:07:03 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/22/2017 1:03:51 AM	A40186
Toluene	ND	0.036		mg/Kg	1	1/22/2017 1:03:51 AM	A40186
Ethylbenzene	ND	0.036		mg/Kg	1	1/22/2017 1:03:51 AM	A40186
Xylenes, Total	ND	0.072		mg/Kg	1	1/22/2017 1:03:51 AM	A40186
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	1	1/22/2017 1:03:51 AM	A40186
Surr: 4-Bromofluorobenzene	135	70-130	S	%Rec	1	1/22/2017 1:03:51 AM	A40186
Surr: Dibromofluoromethane	91.1	70-130		%Rec	1	1/22/2017 1:03:51 AM	A40186
Surr: Toluene-d8	99.4	70-130		%Rec	1	1/22/2017 1:03:51 AM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701928**

Date Reported: **1/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-17

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:00:00 AM

**Lab ID:** 1701928-007

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:33:13 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	71	3.3		mg/Kg	1	1/22/2017 1:32:36 AM	C40186
Surr: BFB	123	70-130		%Rec	1	1/22/2017 1:32:36 AM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	370	9.6		mg/Kg	1	1/23/2017 12:30:31 PM	29817
Motor Oil Range Organics (MRO)	200	48		mg/Kg	1	1/23/2017 12:30:31 PM	29817
Surr: DNOP	106	70-130		%Rec	1	1/23/2017 12:30:31 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.016		mg/Kg	1	1/22/2017 1:32:36 AM	A40186
Toluene	ND	0.033		mg/Kg	1	1/22/2017 1:32:36 AM	A40186
Ethylbenzene	ND	0.033		mg/Kg	1	1/22/2017 1:32:36 AM	A40186
Xylenes, Total	ND	0.065		mg/Kg	1	1/22/2017 1:32:36 AM	A40186
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%Rec	1	1/22/2017 1:32:36 AM	A40186
Surr: 4-Bromofluorobenzene	144	70-130	S	%Rec	1	1/22/2017 1:32:36 AM	A40186
Surr: Dibromofluoromethane	89.1	70-130		%Rec	1	1/22/2017 1:32:36 AM	A40186
Surr: Toluene-d8	97.7	70-130		%Rec	1	1/22/2017 1:32:36 AM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-18

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:04:00 AM

**Lab ID:** 1701928-008

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 10:45:38 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	82	3.6		mg/Kg	1	1/22/2017 2:01:21 AM	C40186
Surr: BFB	127	70-130		%Rec	1	1/22/2017 2:01:21 AM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	390	10		mg/Kg	1	1/23/2017 12:53:53 PM	29817
Motor Oil Range Organics (MRO)	210	50		mg/Kg	1	1/23/2017 12:53:53 PM	29817
Surr: DNOP	108	70-130		%Rec	1	1/23/2017 12:53:53 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/22/2017 2:01:21 AM	A40186
Toluene	ND	0.036		mg/Kg	1	1/22/2017 2:01:21 AM	A40186
Ethylbenzene	ND	0.036		mg/Kg	1	1/22/2017 2:01:21 AM	A40186
Xylenes, Total	ND	0.072		mg/Kg	1	1/22/2017 2:01:21 AM	A40186
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%Rec	1	1/22/2017 2:01:21 AM	A40186
Surr: 4-Bromofluorobenzene	136	70-130	S	%Rec	1	1/22/2017 2:01:21 AM	A40186
Surr: Dibromofluoromethane	89.6	70-130		%Rec	1	1/22/2017 2:01:21 AM	A40186
Surr: Toluene-d8	99.2	70-130		%Rec	1	1/22/2017 2:01:21 AM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-19

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:08:00 AM

**Lab ID:** 1701928-009

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:22:52 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	80	3.9		mg/Kg	1	1/22/2017 2:30:01 AM	C40186
Surr: BFB	122	70-130		%Rec	1	1/22/2017 2:30:01 AM	C40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	350	9.6		mg/Kg	1	1/23/2017 1:20:31 PM	29817
Motor Oil Range Organics (MRO)	250	48		mg/Kg	1	1/23/2017 1:20:31 PM	29817
Surr: DNOP	105	70-130		%Rec	1	1/23/2017 1:20:31 PM	29817
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	1/22/2017 2:30:01 AM	A40186
Toluene	ND	0.039		mg/Kg	1	1/22/2017 2:30:01 AM	A40186
Ethylbenzene	ND	0.039		mg/Kg	1	1/22/2017 2:30:01 AM	A40186
Xylenes, Total	ND	0.078		mg/Kg	1	1/22/2017 2:30:01 AM	A40186
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	1/22/2017 2:30:01 AM	A40186
Surr: 4-Bromofluorobenzene	135	70-130	S	%Rec	1	1/22/2017 2:30:01 AM	A40186
Surr: Dibromofluoromethane	87.8	70-130		%Rec	1	1/22/2017 2:30:01 AM	A40186
Surr: Toluene-d8	98.0	70-130		%Rec	1	1/22/2017 2:30:01 AM	A40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-20

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:11:00 AM

**Lab ID:** 1701928-010

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:35:16 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	87	3.6		mg/Kg	1	1/22/2017 2:58:43 AM	D40186
Surr: BFB	123	70-130		%Rec	1	1/22/2017 2:58:43 AM	D40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	500	9.5		mg/Kg	1	1/23/2017 1:43:52 PM	29818
Motor Oil Range Organics (MRO)	260	47		mg/Kg	1	1/23/2017 1:43:52 PM	29818
Surr: DNOP	109	70-130		%Rec	1	1/23/2017 1:43:52 PM	29818
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	1/22/2017 2:58:43 AM	B40186
Toluene	ND	0.036		mg/Kg	1	1/22/2017 2:58:43 AM	B40186
Ethylbenzene	ND	0.036		mg/Kg	1	1/22/2017 2:58:43 AM	B40186
Xylenes, Total	ND	0.073		mg/Kg	1	1/22/2017 2:58:43 AM	B40186
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%Rec	1	1/22/2017 2:58:43 AM	B40186
Surr: 4-Bromofluorobenzene	138	70-130	S	%Rec	1	1/22/2017 2:58:43 AM	B40186
Surr: Dibromofluoromethane	86.1	70-130		%Rec	1	1/22/2017 2:58:43 AM	B40186
Surr: Toluene-d8	96.9	70-130		%Rec	1	1/22/2017 2:58:43 AM	B40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-21

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:16:00 AM

**Lab ID:** 1701928-011

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 11:47:41 AM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	79	3.9		mg/Kg	1	1/22/2017 4:24:30 AM	D40186
Surr: BFB	123	70-130		%Rec	1	1/22/2017 4:24:30 AM	D40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	420	9.6		mg/Kg	1	1/23/2017 2:11:00 PM	29818
Motor Oil Range Organics (MRO)	290	48		mg/Kg	1	1/23/2017 2:11:00 PM	29818
Surr: DNOP	112	70-130		%Rec	1	1/23/2017 2:11:00 PM	29818
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	1/22/2017 4:24:30 AM	B40186
Toluene	ND	0.039		mg/Kg	1	1/22/2017 4:24:30 AM	B40186
Ethylbenzene	ND	0.039		mg/Kg	1	1/22/2017 4:24:30 AM	B40186
Xylenes, Total	ND	0.079		mg/Kg	1	1/22/2017 4:24:30 AM	B40186
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	1/22/2017 4:24:30 AM	B40186
Surr: 4-Bromofluorobenzene	145	70-130	S	%Rec	1	1/22/2017 4:24:30 AM	B40186
Surr: Dibromofluoromethane	90.6	70-130		%Rec	1	1/22/2017 4:24:30 AM	B40186
Surr: Toluene-d8	96.1	70-130		%Rec	1	1/22/2017 4:24:30 AM	B40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701928

Date Reported: 1/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-22

**Project:** Florance GC J 16A

**Collection Date:** 1/20/2017 11:19:00 AM

**Lab ID:** 1701928-012

**Matrix:** MEOH (SOIL)

**Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/23/2017 12:00:05 PM	29834
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	73	3.8		mg/Kg	1	1/22/2017 5:50:20 AM	D40186
Surr: BFB	126	70-130		%Rec	1	1/22/2017 5:50:20 AM	D40186
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	390	9.8		mg/Kg	1	1/23/2017 2:32:45 PM	29818
Motor Oil Range Organics (MRO)	330	49		mg/Kg	1	1/23/2017 2:32:45 PM	29818
Surr: DNOP	111	70-130		%Rec	1	1/23/2017 2:32:45 PM	29818
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	1/22/2017 5:50:20 AM	B40186
Toluene	ND	0.038		mg/Kg	1	1/22/2017 5:50:20 AM	B40186
Ethylbenzene	ND	0.038		mg/Kg	1	1/22/2017 5:50:20 AM	B40186
Xylenes, Total	ND	0.075		mg/Kg	1	1/22/2017 5:50:20 AM	B40186
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%Rec	1	1/22/2017 5:50:20 AM	B40186
Surr: 4-Bromofluorobenzene	141	70-130	S	%Rec	1	1/22/2017 5:50:20 AM	B40186
Surr: Dibromofluoromethane	90.2	70-130		%Rec	1	1/22/2017 5:50:20 AM	B40186
Surr: Toluene-d8	98.8	70-130		%Rec	1	1/22/2017 5:50:20 AM	B40186

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29834		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29834		RunNo:	40216				
Prep Date:	1/23/2017		Analysis Date:	1/23/2017		SeqNo:	1260604		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29834		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29834		RunNo: 40216					
Prep Date:	1/23/2017		Analysis Date: 1/23/2017		SeqNo: 1260605		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29817		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29817		RunNo: 40199					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260281		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	98.5	63.8	116			
Surr: DNOP	5.0		5.000		99.5	70	130			

Sample ID	MB-29817		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29817		RunNo: 40199					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260282		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	MB-29818		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29818		RunNo: 40201					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260286		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	70	130			

Sample ID	LCS-29818		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29818		RunNo: 40201					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260291		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	95.5	63.8	116			
Surr: DNOP	6.0		5.000		119	70	130			

Sample ID	1701928-010AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-20		Batch ID: 29818		RunNo: 40200					
Prep Date:	1/21/2017		Analysis Date: 1/23/2017		SeqNo: 1260575		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	520	9.7	48.45	501.3	47.1	51.6	130			S
Surr: DNOP	5.3		4.845		110	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1701928-010AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-20	Batch ID:	29818	RunNo:	40200					
Prep Date:	1/21/2017	Analysis Date:	1/23/2017	SeqNo:	1260576	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	530	10	50.00	501.3	60.9	51.6	130	1.44	20	
Surr: DNOP	5.6		5.000		111	70	130	0	0	

Sample ID	LCS-29802	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	29802	RunNo:	40200					
Prep Date:	1/20/2017	Analysis Date:	1/23/2017	SeqNo:	1261137	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.2	70	130			

Sample ID	MB-29802	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	29802	RunNo:	40200					
Prep Date:	1/20/2017	Analysis Date:	1/23/2017	SeqNo:	1261138	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>A40186</b>		RunNo: <b>40186</b>							
Prep Date:	Analysis Date: <b>1/21/2017</b>		SeqNo: <b>1259842</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.6	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>A40186</b>		RunNo: <b>40186</b>							
Prep Date:	Analysis Date: <b>1/21/2017</b>		SeqNo: <b>1259843</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.5	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID <b>rb1</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B40186</b>		RunNo: <b>40186</b>							
Prep Date:	Analysis Date: <b>1/22/2017</b>		SeqNo: <b>1259878</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.1	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.6	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.8	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID <b>100ng lcs2</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B40186</b>		RunNo: <b>40186</b>							
Prep Date:	Analysis Date: <b>1/21/2017</b>		SeqNo: <b>1259879</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	100ng lcs2		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: B40186		RunNo: 40186					
Prep Date:			Analysis Date: 1/21/2017		SeqNo: 1259879		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.8	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.9	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID	1701928-010ams2	SampType: MS			TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-20	Batch ID: B40186			RunNo: 40186					
Prep Date:		Analysis Date: 1/22/2017			SeqNo: 1259881		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.59	0.018	0.7278	0	80.7	61.9	146			
Toluene	0.76	0.036	0.7278	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	0.30		0.3639		83.5	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.3639		144	70	130			S
Surr: Dibromofluoromethane	0.31		0.3639		84.7	70	130			
Surr: Toluene-d8	0.36		0.3639		99.8	70	130			

Sample ID	1701928-010amsd2			SampType:	MSD		TestCode:	EPA Method 8260B: Volatiles Short List			
Client ID:	TSP-20			Batch ID:	B40186		RunNo:	40186			
Prep Date:				Analysis Date:	1/22/2017		SeqNo:	1259882		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.59	0.018	0.7278	0	80.6	61.9	146	0.0298	20		
Toluene	0.70	0.036	0.7278	0	95.5	70	130	8.87	20		
Surr: 1,2-Dichloroethane-d4	0.32		0.3639		87.4	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.50		0.3639		137	70	130	0	0	S	
Surr: Dibromofluoromethane	0.32		0.3639		88.1	70	130	0	0		
Surr: Toluene-d8	0.35		0.3639		96.0	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>C40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/21/2017</b>			SeqNo: <b>1259894</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		100	70	130			

Sample ID <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>C40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/21/2017</b>			SeqNo: <b>1259895</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	62.9	123			
Surr: BFB	500		500.0		99.0	70	130			

Sample ID <b>rb1</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>D40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/22/2017</b>			SeqNo: <b>1259935</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	480		500.0		96.2	70	130			

Sample ID <b>2.5ug gro lcs2</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>D40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/22/2017</b>			SeqNo: <b>1259936</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.5	62.9	123			
Surr: BFB	480		500.0		96.9	70	130			

Sample ID <b>1701928-011ams2</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-21</b>	Batch ID: <b>D40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/22/2017</b>			SeqNo: <b>1259939</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	94	3.9	19.66	79.30	76.5	52.3	132			
Surr: BFB	500		393.1		127	70	130			

Sample ID <b>1701928-011amsd2</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-21</b>	Batch ID: <b>D40186</b>			RunNo: <b>40186</b>						
Prep Date:	Analysis Date: <b>1/22/2017</b>			SeqNo: <b>1259940</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701928

24-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID 1701928-011amsd2		SampType: MSD			TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID: TSP-21	Batch ID: D40186			RunNo: 40186						
Prep Date:	Analysis Date: 1/22/2017			SeqNo: 1259940		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	95	3.9	19.66	79.30	77.4	52.3	132	0.191	20	
Surr: BFB	480		393.1		123	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1701928

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/21/2017 9:15:00 AM

Completed By: Lindsay Mangin

1/21/2017 9:43:35 AM

Reviewed By: [Signature]

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			

Chain-of-Custody Record	Client: <u>BP America</u>	Turn-Around Time: <u>ASAP</u> <u>SAME DAY</u>
	<u>BLASS ENGINEERING INC.</u>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush
Mailing Address:	Project Name: <u>FLORADE GC J 16A</u>	

Turn-Around Time: ASAP  
SAME DAY

☐ Standard ☒ Rush

Project Name: FLORENCE GC J 16A

Client:	BP America
Mailing Address:	BLASS ENGINEERING INC.

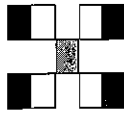
Phone #:	505-320-1183	Project #:	BP-TREATED SOIL PILES
----------	--------------	------------	-----------------------

email or Fax#:	Project Manager:	
QA/QC Package:	J. Blakes	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	
Accreditation	Sampler: J. Blakes	
<input type="checkbox"/> NELAP	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type) _____	Sample Temperature: 22.0	

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/20/17	1038	Soil	TSP-11	4 oz x1	COOL	1701928
"	1041	"	TSP-12	"	"	-001
"	1044	"	TSP-13	"	"	-002
"	1049	"	TSP-14	"	"	-003
"	1053	"	TSP-15	"	"	-004
"	1057	"	TSP-16	"	"	-005
"	1100	"	TSP-17	"	"	-006
"	1104	"	TSP-18	"	"	-007
"	1108	"	TSP-19	"	"	-008
"	1111	"	TSP-20	"	"	-009
"	1116	"	TSP-21	"	"	-010
"	1119	"	TSP-22	"	"	-011
"						-012

Date: 2/20/17	Time: 1542	Relinquished by: Jeff Blay	Received by: <i>Amster-Walsh</i>	Date: 1543	Time: 2/20/17
Date: 1/10/17	Time: 1904	Relinquished by: <i>Amster-Walsh</i>	Received by: <i>Amster-Walsh</i>	Date: 01/24/17	Time: 0915

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

## Analysis Request

[illegible]

Remarks: BILL BP  
CONTACT: STEVE MOSKAL  
VID: VHIXONNEVRM  
(Note: Samples Treated with  $H_2O_2$ )

possibility. Any sub-contracted data will be clearly notated on the analytical report.





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

January 27, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1701A12

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 21 sample(s) on 1/25/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-23

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:03:00 AM

**Lab ID:** 1701A12-001

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 4:01:16 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	100	9.3		mg/Kg	1	1/26/2017 7:52:30 PM	29872
Motor Oil Range Organics (MRO)	360	47		mg/Kg	1	1/26/2017 7:52:30 PM	29872
Surr: DNOP	117	70-130		%Rec	1	1/26/2017 7:52:30 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	38	10		mg/Kg	2	1/26/2017 10:57:53 AM	29880
Surr: BFB	197	68.3-144	S	%Rec	2	1/26/2017 10:57:53 AM	29880
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	2	1/26/2017 10:57:53 AM	29880
Toluene	ND	0.10		mg/Kg	2	1/26/2017 10:57:53 AM	29880
Ethylbenzene	ND	0.10		mg/Kg	2	1/26/2017 10:57:53 AM	29880
Xylenes, Total	ND	0.20		mg/Kg	2	1/26/2017 10:57:53 AM	29880
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	2	1/26/2017 10:57:53 AM	29880

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701A12**

Date Reported: **1/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-24

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:08:00 AM

**Lab ID:** 1701A12-002

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 4:38:29 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	300	9.7		mg/Kg	1	1/26/2017 8:14:04 PM	29872
Motor Oil Range Organics (MRO)	190	49		mg/Kg	1	1/26/2017 8:14:04 PM	29872
Surr: DNOP	116	70-130		%Rec	1	1/26/2017 8:14:04 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	26	9.7		mg/Kg	2	1/26/2017 11:21:23 AM	29889
Surr: BFB	203	68.3-144	S	%Rec	2	1/26/2017 11:21:23 AM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	2	1/26/2017 11:21:23 AM	29889
Toluene	ND	0.097		mg/Kg	2	1/26/2017 11:21:23 AM	29889
Ethylbenzene	ND	0.097		mg/Kg	2	1/26/2017 11:21:23 AM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 11:21:23 AM	29889
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	2	1/26/2017 11:21:23 AM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-25

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:14:00 AM

**Lab ID:** 1701A12-003

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 4:50:54 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	250	9.5		mg/Kg	1	1/26/2017 12:40:40 PM	29872
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	1/26/2017 12:40:40 PM	29872
Surr: DNOP	112	70-130		%Rec	1	1/26/2017 12:40:40 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	20	9.7		mg/Kg	2	1/26/2017 12:32:19 PM	29889
Surr: BFB	183	68.3-144	S	%Rec	2	1/26/2017 12:32:19 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	2	1/26/2017 12:32:19 PM	29889
Toluene	ND	0.097		mg/Kg	2	1/26/2017 12:32:19 PM	29889
Ethylbenzene	ND	0.097		mg/Kg	2	1/26/2017 12:32:19 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 12:32:19 PM	29889
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	2	1/26/2017 12:32:19 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-26

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:18:00 AM

**Lab ID:** 1701A12-004

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 5:03:18 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	260	9.8		mg/Kg	1	1/26/2017 1:02:44 PM	29872
Motor Oil Range Organics (MRO)	180	49		mg/Kg	1	1/26/2017 1:02:44 PM	29872
Surr: DNOP	116	70-130		%Rec	1	1/26/2017 1:02:44 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	22	9.4		mg/Kg	2	1/26/2017 1:42:55 PM	29889
Surr: BFB	187	68.3-144	S	%Rec	2	1/26/2017 1:42:55 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	2	1/26/2017 1:42:55 PM	29889
Toluene	ND	0.094		mg/Kg	2	1/26/2017 1:42:55 PM	29889
Ethylbenzene	ND	0.094		mg/Kg	2	1/26/2017 1:42:55 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 1:42:55 PM	29889
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	2	1/26/2017 1:42:55 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-27

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:22:00 AM

**Lab ID:** 1701A12-005

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 5:15:42 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	200	9.4		mg/Kg	1	1/26/2017 1:24:12 PM	29872
Motor Oil Range Organics (MRO)	250	47		mg/Kg	1	1/26/2017 1:24:12 PM	29872
Surr: DNOP	114	70-130		%Rec	1	1/26/2017 1:24:12 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	22	9.8		mg/Kg	2	1/26/2017 2:06:27 PM	29889
Surr: BFB	187	68.3-144	S	%Rec	2	1/26/2017 2:06:27 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	2	1/26/2017 2:06:27 PM	29889
Toluene	ND	0.098		mg/Kg	2	1/26/2017 2:06:27 PM	29889
Ethylbenzene	ND	0.098		mg/Kg	2	1/26/2017 2:06:27 PM	29889
Xylenes, Total	ND	0.20		mg/Kg	2	1/26/2017 2:06:27 PM	29889
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	2	1/26/2017 2:06:27 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-28

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:26:00 AM

**Lab ID:** 1701A12-006

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 5:52:56 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	140	10		mg/Kg	1	1/26/2017 1:45:53 PM	29872
Motor Oil Range Organics (MRO)	140	50		mg/Kg	1	1/26/2017 1:45:53 PM	29872
Surr: DNOP	110	70-130		%Rec	1	1/26/2017 1:45:53 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	25	9.4		mg/Kg	2	1/26/2017 2:29:57 PM	29889
Surr: BFB	205	68.3-144	S	%Rec	2	1/26/2017 2:29:57 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	2	1/26/2017 2:29:57 PM	29889
Toluene	ND	0.094		mg/Kg	2	1/26/2017 2:29:57 PM	29889
Ethylbenzene	ND	0.094		mg/Kg	2	1/26/2017 2:29:57 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 2:29:57 PM	29889
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	2	1/26/2017 2:29:57 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-29

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:30:00 AM

**Lab ID:** 1701A12-007

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 6:05:21 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	200	10		mg/Kg	1	1/26/2017 2:07:30 PM	29872
Motor Oil Range Organics (MRO)	160	51		mg/Kg	1	1/26/2017 2:07:30 PM	29872
Surr: DNOP	110	70-130		%Rec	1	1/26/2017 2:07:30 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	9.7		mg/Kg	2	1/26/2017 2:53:32 PM	29889
Surr: BFB	187	68.3-144	S	%Rec	2	1/26/2017 2:53:32 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 2:53:32 PM	29889
Toluene	ND	0.097		mg/Kg	2	1/26/2017 2:53:32 PM	29889
Ethylbenzene	ND	0.097		mg/Kg	2	1/26/2017 2:53:32 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 2:53:32 PM	29889
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	2	1/26/2017 2:53:32 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-30

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:33:00 AM

**Lab ID:** 1701A12-008

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 6:17:46 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	170	9.8		mg/Kg	1	1/26/2017 2:29:07 PM	29872
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	1/26/2017 2:29:07 PM	29872
Surr: DNOP	110	70-130		%Rec	1	1/26/2017 2:29:07 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	24	9.6		mg/Kg	2	1/26/2017 3:17:11 PM	29889
Surr: BFB	203	68.3-144	S	%Rec	2	1/26/2017 3:17:11 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 3:17:11 PM	29889
Toluene	ND	0.096		mg/Kg	2	1/26/2017 3:17:11 PM	29889
Ethylbenzene	ND	0.096		mg/Kg	2	1/26/2017 3:17:11 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 3:17:11 PM	29889
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	2	1/26/2017 3:17:11 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-31

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:37:00 AM

**Lab ID:** 1701A12-009

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 6:30:10 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	220	9.2		mg/Kg	1	1/26/2017 2:50:36 PM	29872
Motor Oil Range Organics (MRO)	150	46		mg/Kg	1	1/26/2017 2:50:36 PM	29872
Surr: DNOP	111	70-130		%Rec	1	1/26/2017 2:50:36 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	24	9.3		mg/Kg	2	1/26/2017 3:40:44 PM	29889
Surr: BFB	212	68.3-144	S	%Rec	2	1/26/2017 3:40:44 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	2	1/26/2017 3:40:44 PM	29889
Toluene	ND	0.093		mg/Kg	2	1/26/2017 3:40:44 PM	29889
Ethylbenzene	ND	0.093		mg/Kg	2	1/26/2017 3:40:44 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 3:40:44 PM	29889
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	2	1/26/2017 3:40:44 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-32

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:40:00 AM

**Lab ID:** 1701A12-010

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 6:42:34 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	230	9.7		mg/Kg	1	1/26/2017 3:12:12 PM	29872
Motor Oil Range Organics (MRO)	160	49		mg/Kg	1	1/26/2017 3:12:12 PM	29872
Surr: DNOP	112	70-130		%Rec	1	1/26/2017 3:12:12 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	23	9.5		mg/Kg	2	1/26/2017 4:04:08 PM	29889
Surr: BFB	205	68.3-144	S	%Rec	2	1/26/2017 4:04:08 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 4:04:08 PM	29889
Toluene	ND	0.095		mg/Kg	2	1/26/2017 4:04:08 PM	29889
Ethylbenzene	ND	0.095		mg/Kg	2	1/26/2017 4:04:08 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 4:04:08 PM	29889
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	2	1/26/2017 4:04:08 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-33

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:45:00 AM

**Lab ID:** 1701A12-011

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 6:54:58 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	150	9.4		mg/Kg	1	1/26/2017 3:33:43 PM	29872
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	1/26/2017 3:33:43 PM	29872
Surr: DNOP	109	70-130		%Rec	1	1/26/2017 3:33:43 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	26	9.4		mg/Kg	2	1/26/2017 7:35:05 PM	29889
Surr: BFB	213	68.3-144	S	%Rec	2	1/26/2017 7:35:05 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	2	1/26/2017 7:35:05 PM	29889
Toluene	ND	0.094		mg/Kg	2	1/26/2017 7:35:05 PM	29889
Ethylbenzene	ND	0.094		mg/Kg	2	1/26/2017 7:35:05 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 7:35:05 PM	29889
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	2	1/26/2017 7:35:05 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-34

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 10:57:00 AM

**Lab ID:** 1701A12-012

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 7:07:23 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	210	9.3		mg/Kg	1	1/26/2017 4:16:48 PM	29872
Motor Oil Range Organics (MRO)	140	46		mg/Kg	1	1/26/2017 4:16:48 PM	29872
Surr: DNOP	114	70-130		%Rec	1	1/26/2017 4:16:48 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	24	9.4		mg/Kg	2	1/26/2017 7:58:26 PM	29889
Surr: BFB	209	68.3-144	S	%Rec	2	1/26/2017 7:58:26 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	2	1/26/2017 7:58:26 PM	29889
Toluene	ND	0.094		mg/Kg	2	1/26/2017 7:58:26 PM	29889
Ethylbenzene	ND	0.094		mg/Kg	2	1/26/2017 7:58:26 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 7:58:26 PM	29889
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	2	1/26/2017 7:58:26 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-35

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:03:00 AM

**Lab ID:** 1701A12-013

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 7:19:48 AM	29892
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	270	9.7		mg/Kg	1	1/26/2017 4:38:24 PM	29872
Motor Oil Range Organics (MRO)	200	49		mg/Kg	1	1/26/2017 4:38:24 PM	29872
Surr: DNOP	113	70-130		%Rec	1	1/26/2017 4:38:24 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	29	9.7		mg/Kg	2	1/26/2017 8:21:53 PM	29889
Surr: BFB	228	68.3-144	S	%Rec	2	1/26/2017 8:21:53 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 8:21:53 PM	29889
Toluene	ND	0.097		mg/Kg	2	1/26/2017 8:21:53 PM	29889
Ethylbenzene	ND	0.097		mg/Kg	2	1/26/2017 8:21:53 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 8:21:53 PM	29889
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	2	1/26/2017 8:21:53 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-36

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:08:00 AM

**Lab ID:** 1701A12-014

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 12:32:30 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	180	9.6		mg/Kg	1	1/26/2017 4:59:57 PM	29872
Motor Oil Range Organics (MRO)	180	48		mg/Kg	1	1/26/2017 4:59:57 PM	29872
Surr: DNOP	113	70-130		%Rec	1	1/26/2017 4:59:57 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	9.7		mg/Kg	2	1/26/2017 8:45:26 PM	29889
Surr: BFB	187	68.3-144	S	%Rec	2	1/26/2017 8:45:26 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	2	1/26/2017 8:45:26 PM	29889
Toluene	ND	0.097		mg/Kg	2	1/26/2017 8:45:26 PM	29889
Ethylbenzene	ND	0.097		mg/Kg	2	1/26/2017 8:45:26 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 8:45:26 PM	29889
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	2	1/26/2017 8:45:26 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701A12**

Date Reported: **1/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-37

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:12:00 AM

**Lab ID:** 1701A12-015

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 1:09:43 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	310	9.6		mg/Kg	1	1/26/2017 5:21:30 PM	29872
Motor Oil Range Organics (MRO)	290	48		mg/Kg	1	1/26/2017 5:21:30 PM	29872
Surr: DNOP	114	70-130		%Rec	1	1/26/2017 5:21:30 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	31	9.5		mg/Kg	2	1/26/2017 9:09:01 PM	29889
Surr: BFB	237	68.3-144	S	%Rec	2	1/26/2017 9:09:01 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 9:09:01 PM	29889
Toluene	ND	0.095		mg/Kg	2	1/26/2017 9:09:01 PM	29889
Ethylbenzene	ND	0.095		mg/Kg	2	1/26/2017 9:09:01 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 9:09:01 PM	29889
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	2	1/26/2017 9:09:01 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-38

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:17:00 AM

**Lab ID:** 1701A12-016

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 1:22:07 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	180	9.3		mg/Kg	1	1/26/2017 5:43:09 PM	29872
Motor Oil Range Organics (MRO)	130	46		mg/Kg	1	1/26/2017 5:43:09 PM	29872
Surr: DNOP	110	70-130		%Rec	1	1/26/2017 5:43:09 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	9.6		mg/Kg	2	1/26/2017 9:32:25 PM	29889
Surr: BFB	185	68.3-144	S	%Rec	2	1/26/2017 9:32:25 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 9:32:25 PM	29889
Toluene	ND	0.096		mg/Kg	2	1/26/2017 9:32:25 PM	29889
Ethylbenzene	ND	0.096		mg/Kg	2	1/26/2017 9:32:25 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 9:32:25 PM	29889
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	2	1/26/2017 9:32:25 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701A12**

Date Reported: **1/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-39

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:26:00 AM

**Lab ID:** 1701A12-017

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 1:34:31 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	230	9.7		mg/Kg	1	1/26/2017 6:04:39 PM	29872
Motor Oil Range Organics (MRO)	160	49		mg/Kg	1	1/26/2017 6:04:39 PM	29872
Surr: DNOP	112	70-130		%Rec	1	1/26/2017 6:04:39 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	14	9.6		mg/Kg	2	1/26/2017 9:55:45 PM	29889
Surr: BFB	148	68.3-144	S	%Rec	2	1/26/2017 9:55:45 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 9:55:45 PM	29889
Toluene	ND	0.096		mg/Kg	2	1/26/2017 9:55:45 PM	29889
Ethylbenzene	ND	0.096		mg/Kg	2	1/26/2017 9:55:45 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 9:55:45 PM	29889
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	2	1/26/2017 9:55:45 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-40

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:31:00 AM

**Lab ID:** 1701A12-018

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 1:46:55 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	210	10		mg/Kg	1	1/26/2017 6:26:13 PM	29872
Motor Oil Range Organics (MRO)	85	50		mg/Kg	1	1/26/2017 6:26:13 PM	29872
Surr: DNOP	114	70-130		%Rec	1	1/26/2017 6:26:13 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	9.5		mg/Kg	2	1/26/2017 10:19:02 PM	29889
Surr: BFB	127	68.3-144		%Rec	2	1/26/2017 10:19:02 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 10:19:02 PM	29889
Toluene	ND	0.095		mg/Kg	2	1/26/2017 10:19:02 PM	29889
Ethylbenzene	ND	0.095		mg/Kg	2	1/26/2017 10:19:02 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 10:19:02 PM	29889
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	2	1/26/2017 10:19:02 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-41

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:40:00 AM

**Lab ID:** 1701A12-019

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 1:59:19 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	310	9.5		mg/Kg	1	1/26/2017 6:47:52 PM	29872
Motor Oil Range Organics (MRO)	220	48		mg/Kg	1	1/26/2017 6:47:52 PM	29872
Surr: DNOP	115	70-130		%Rec	1	1/26/2017 6:47:52 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	23	9.6		mg/Kg	2	1/26/2017 10:42:21 PM	29889
Surr: BFB	198	68.3-144	S	%Rec	2	1/26/2017 10:42:21 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/26/2017 10:42:21 PM	29889
Toluene	ND	0.096		mg/Kg	2	1/26/2017 10:42:21 PM	29889
Ethylbenzene	ND	0.096		mg/Kg	2	1/26/2017 10:42:21 PM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/26/2017 10:42:21 PM	29889
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	2	1/26/2017 10:42:21 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-42

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:48:00 AM

**Lab ID:** 1701A12-020

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 2:36:32 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	110	9.9		mg/Kg	1	1/26/2017 7:09:23 PM	29872
Motor Oil Range Organics (MRO)	58	50		mg/Kg	1	1/26/2017 7:09:23 PM	29872
Surr: DNOP	111	70-130		%Rec	1	1/26/2017 7:09:23 PM	29872
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	9.8		mg/Kg	2	1/26/2017 11:05:39 PM	29889
Surr: BFB	106	68.3-144		%Rec	2	1/26/2017 11:05:39 PM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	2	1/26/2017 11:05:39 PM	29889
Toluene	ND	0.098		mg/Kg	2	1/26/2017 11:05:39 PM	29889
Ethylbenzene	ND	0.098		mg/Kg	2	1/26/2017 11:05:39 PM	29889
Xylenes, Total	ND	0.20		mg/Kg	2	1/26/2017 11:05:39 PM	29889
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	2	1/26/2017 11:05:39 PM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701A12

Date Reported: 1/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-43

**Project:** Florance GC J 16A

**Collection Date:** 1/24/2017 11:52:00 AM

**Lab ID:** 1701A12-021

**Matrix:** SOIL

**Received Date:** 1/25/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/26/2017 2:48:57 PM	29917
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	120	9.7		mg/Kg	1	1/26/2017 7:30:59 PM	29873
Motor Oil Range Organics (MRO)	53	48		mg/Kg	1	1/26/2017 7:30:59 PM	29873
Surr: DNOP	108	70-130		%Rec	1	1/26/2017 7:30:59 PM	29873
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	9.6		mg/Kg	2	1/27/2017 12:39:09 AM	29889
Surr: BFB	110	68.3-144		%Rec	2	1/27/2017 12:39:09 AM	29889
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	2	1/27/2017 12:39:09 AM	29889
Toluene	ND	0.096		mg/Kg	2	1/27/2017 12:39:09 AM	29889
Ethylbenzene	ND	0.096		mg/Kg	2	1/27/2017 12:39:09 AM	29889
Xylenes, Total	ND	0.19		mg/Kg	2	1/27/2017 12:39:09 AM	29889
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	2	1/27/2017 12:39:09 AM	29889

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701A12

27-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29892		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29892		RunNo:	40294				
Prep Date:	1/25/2017		Analysis Date:	1/26/2017		SeqNo:	1263146		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29892		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29892		RunNo: 40294					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263147		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Sample ID	MB-29917		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 29917		RunNo: 40328					
Prep Date:	1/26/2017		Analysis Date: 1/26/2017		SeqNo: 1264105		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29917		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29917		RunNo: 40328					
Prep Date:	1/26/2017		Analysis Date: 1/26/2017		SeqNo: 1264106		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701A12

27-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29873		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29873		RunNo: 40298					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263368		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.7	63.8	116			
Surr: DNOP	4.9		5.000		98.6	70	130			

Sample ID	MB-29873		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29873		RunNo: 40298					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263369		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		99.9	70	130			

Sample ID	LCS-29872		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29872		RunNo: 40298					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263482		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.2	63.8	116			
Surr: DNOP	4.9		5.000		98.6	70	130			

Sample ID	MB-29872		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29872		RunNo: 40298					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263483		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701A12

27-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29889		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29889		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263937		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	840		1000		83.7	68.3	144			

Sample ID	LCS-29889		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29889		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263939		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	74.6	123			
Surr: BFB	940		1000		93.6	68.3	144			

Sample ID	MB-29880		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29880		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263962		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	860		1000		86.1	68.3	144			

Sample ID	LCS-29880		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29880		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263963		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	74.6	123			
Surr: BFB	920		1000		91.9	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701A12

27-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29889		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29889		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263980		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.0	80	120			

Sample ID	LCS-29889		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29889		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1263981		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.2	75.2	115			
Toluene	0.84	0.050	1.000	0	84.1	80.7	112			
Ethylbenzene	0.84	0.050	1.000	0	83.7	78.9	117			
Xylenes, Total	2.5	0.10	3.000	0	84.4	79.2	115			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			

Sample ID	MB-29880		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29880		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1264004		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.8	80	120			

Sample ID	LCS-29880		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29880		RunNo: 40299					
Prep Date:	1/25/2017		Analysis Date: 1/26/2017		SeqNo: 1264005		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	105	75.2	115			
Toluene	0.91	0.050	1.000	0	91.4	80.7	112			
Ethylbenzene	0.87	0.050	1.000	0	87.5	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	88.5	79.2	115			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701A12**

RcptNo: 1

Received by/date: LM 01/25/17

Logged By: **Anne Thorne** 1/25/2017 7:30:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 1/25/2017 8:51:16 AM *Anne Thorne*

Reviewed By: *AG* 01/25/17

### 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.8	Good	Yes			

# Chain-of-Custody Record

Client: **BP AMERICA**  
**BLAGG ENGINEERING INC.**  
 Billing Address:

Turn-Around Time: **By Friday 1/27/2017**  
☐ Standard ☒ Rush  
 Project Name: **FLORIANE GC J 16A**

Project #: **BP - TREATED SOIL PILES**

Project Manager: **J. Blagg**

Sampler: **J. Blagg**  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: **1.8**

Date	Time	Matrix	Sample Request ID
1/24/17	1003	Soil	TSP-23
	1008		TSP-24
	1014		TSP-25
	1018		TSP-26
	1022		TSP-27
	1026		TSP-28
	1030		TSP-29
	1033		TSP-30
	1037		TSP-31
	1040		TSP-32
	1045		TSP-33
	1057		TSP-34

Relinquished by: **J. Blagg** Date: **1/24/17 1810**  
 Relinquished by: **Steve Mokal** Date: **1/25/17 0730**

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

## Analysis Request

BTEX + MTBE + 116B5 (8024)	BTEX + MTBE (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
X	X	X									X	

Remarks: **Bill BP**  
**CONTACT: STEVE MOKAL**  
**VID: VHXONEVRM**  
**SAMPLES TREATED WITH H<sub>2</sub>O<sub>2</sub>**

# Chain-of-Custody Record

Turn-Around Time: **By Friday 1/27/2017**

Client: **BP America**

☒ Standard ☒ Rush

Company: **BLAGG ENGINEERING INC.**

Project Name:

**FLORANCE GC J 16A**

Billing Address:

Project #:

**BP-TREATED SOIL PILES**

Phone #: **505-320-1183**

Email or Fax#:

A/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☒ NELAP ☐ Other

EDD (Type)

Sampler: **J. Blagg**

On Ice: ☒ Yes ☐ No

Sample Temperature: **1-8**

Date Time Matrix Sample Request ID

Container Type and #

Preservative Type

HEAL No.

1/21/17	1103	SOIL	TSP-35	4 oz x1	COOL	1701A12
1/21/17	1108		TSP-36			213
1/21/17	1112		TSP-37			214
1/21/17	1117		TSP-38			215
1/21/17	1126		TSP-39			216
1/21/17	1131		TSP-40			217
1/21/17	1140		TSP-41			218
1/21/17	1148		TSP-42			219
1/21/17	1152		TSP-43			220
						221

Relinquished by:

**John Blagg**

Date Time

**1/20/17 1810**

Relinquished by:

**Muette Wale**

Date Time

**1/21/17 1821**

Received by:

**Muette Wale**

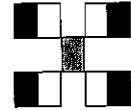
Date Time

**1/21/17 0730**

Remarks:

**Bill BP CONTACT: STEVE MUSKAH VID: YHUXONUEVRM**

**SAMPLES TREATED WITH H2O2**



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTX + MTBE + THMs (8021)	BTX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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

February 07, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702211

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 10 sample(s) on 2/4/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-01

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:47:00 AM

**Lab ID:** 1702211-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	13	3.3		mg/Kg	1	2/6/2017 11:14:46 AM	G40534
Surr: BFB	100	70-130		%Rec	1	2/6/2017 11:14:46 AM	G40534
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	9.4		mg/Kg	1	2/6/2017 12:18:31 PM	30057
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/6/2017 12:18:31 PM	30057
Surr: DNOP	107	70-130		%Rec	1	2/6/2017 12:18:31 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-02

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:50:00 AM

**Lab ID:** 1702211-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	2.7		mg/Kg	1	2/6/2017 11:43:46 AM	G40534
Surr: BFB	105	70-130		%Rec	1	2/6/2017 11:43:46 AM	G40534
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	39	9.3		mg/Kg	1	2/6/2017 12:40:06 PM	30057
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2017 12:40:06 PM	30057
Surr: DNOP	110	70-130		%Rec	1	2/6/2017 12:40:06 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-03

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:53:00 AM

**Lab ID:** 1702211-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	16	3.0		mg/Kg	1	2/6/2017 12:12:45 PM	G40534
Surr: BFB	101	70-130		%Rec	1	2/6/2017 12:12:45 PM	G40534
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	100	9.4		mg/Kg	1	2/6/2017 1:01:41 PM	30057
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/6/2017 1:01:41 PM	30057
Surr: DNOP	112	70-130		%Rec	1	2/6/2017 1:01:41 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-04

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:56:00 AM

**Lab ID:** 1702211-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	3.1		mg/Kg	1	2/6/2017 12:41:47 PM	G40534
Surr: BFB	108	70-130		%Rec	1	2/6/2017 12:41:47 PM	G40534
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	14	9.8		mg/Kg	1	2/6/2017 1:23:21 PM	30057
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2017 1:23:21 PM	30057
Surr: DNOP	110	70-130		%Rec	1	2/6/2017 1:23:21 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-05

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:59:00 AM

**Lab ID:** 1702211-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	14	3.0		mg/Kg	1	2/6/2017 1:10:52 PM	G40534
Surr: BFB	104	70-130		%Rec	1	2/6/2017 1:10:52 PM	G40534
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	30	9.8		mg/Kg	1	2/6/2017 1:44:59 PM	30057
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2017 1:44:59 PM	30057
Surr: DNOP	109	70-130		%Rec	1	2/6/2017 1:44:59 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-06

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 10:02:00 AM

**Lab ID:** 1702211-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	30	2.9		mg/Kg	1	2/6/2017 10:51:18 AM	G40524
Surr: BFB	100	70-130		%Rec	1	2/6/2017 10:51:18 AM	G40524
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	9.6		mg/Kg	1	2/6/2017 2:06:44 PM	30057
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/6/2017 2:06:44 PM	30057
Surr: DNOP	113	70-130		%Rec	1	2/6/2017 2:06:44 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-07

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 10:05:00 AM

**Lab ID:** 1702211-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	24	3.0		mg/Kg	1	2/6/2017 11:20:08 AM	G40524
Surr: BFB	101	70-130		%Rec	1	2/6/2017 11:20:08 AM	G40524
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	47	9.9		mg/Kg	1	2/6/2017 12:16:33 PM	30057
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2017 12:16:33 PM	30057
Surr: DNOP	93.8	70-130		%Rec	1	2/6/2017 12:16:33 PM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702211**

Date Reported: **2/7/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-08

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 10:08:00 AM

**Lab ID:** 1702211-008

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	28	3.0		mg/Kg	1	2/6/2017 11:48:59 AM	G40524
Surr: BFB	101	70-130		%Rec	1	2/6/2017 11:48:59 AM	G40524
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	36	9.2		mg/Kg	1	2/6/2017 11:48:58 AM	30057
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2017 11:48:58 AM	30057
Surr: DNOP	90.5	70-130		%Rec	1	2/6/2017 11:48:58 AM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-09

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 10:11:00 AM

**Lab ID:** 1702211-009

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	31	3.1		mg/Kg	1	2/6/2017 12:17:51 PM	G40524
Surr: BFB	109	70-130		%Rec	1	2/6/2017 12:17:51 PM	G40524
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	38	10		mg/Kg	1	2/6/2017 11:21:22 AM	30057
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/6/2017 11:21:22 AM	30057
Surr: DNOP	91.6	70-130		%Rec	1	2/6/2017 11:21:22 AM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702211

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-100-10

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 10:14:00 AM

**Lab ID:** 1702211-010

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	16	3.2		mg/Kg	1	2/6/2017 12:46:41 PM	G40524
Surr: BFB	101	70-130		%Rec	1	2/6/2017 12:46:41 PM	G40524
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	50	10		mg/Kg	1	2/6/2017 10:53:48 AM	30057
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/6/2017 10:53:48 AM	30057
Surr: DNOP	92.1	70-130		%Rec	1	2/6/2017 10:53:48 AM	30057

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702211

07-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30057	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30057			RunNo: 40519					
Prep Date:	2/6/2017	Analysis Date: 2/6/2017			SeqNo: 1269695		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	70	130			

Sample ID	LCS-30057		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30057		RunNo: 40519					
Prep Date:	2/6/2017		Analysis Date: 2/6/2017		SeqNo: 1269900		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	93.1	63.8	116			
Surr: DNOP	4.8		5.000		96.1	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702211

07-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>G40534</b>			RunNo: <b>40534</b>						
Prep Date:	Analysis Date: <b>2/6/2017</b>			SeqNo: <b>1270278</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	450		500.0		90.9	70	130			

Sample ID <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>G40534</b>			RunNo: <b>40534</b>						
Prep Date:	Analysis Date: <b>2/6/2017</b>			SeqNo: <b>1270282</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	70	130			
Surr: BFB	460		500.0		92.6	70	130			

Sample ID <b>1702211-001ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-RT-100-01</b>	Batch ID: <b>G40534</b>			RunNo: <b>40534</b>						
Prep Date:	Analysis Date: <b>2/6/2017</b>			SeqNo: <b>1270284</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	3.3	16.57	13.29	99.7	63.2	128			
Surr: BFB	340		331.4		102	70	130			

Sample ID <b>1702211-001amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-RT-100-01</b>	Batch ID: <b>G40534</b>			RunNo: <b>40534</b>						
Prep Date:	Analysis Date: <b>2/6/2017</b>			SeqNo: <b>1270286</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	3.3	16.57	13.29	100	63.2	128	0.377	20	
Surr: BFB	330		331.4		98.3	70	130	0	0	

Sample ID <b>1702211-006ams</b>	SampType: <b>MS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-RT-100-06</b>	Batch ID: <b>G40524</b>			RunNo: <b>40524</b>						
Prep Date:	Analysis Date: <b>2/7/2017</b>			SeqNo: <b>1270317</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	45	2.9	14.41	29.77	109	63.2	128			
Surr: BFB	290		288.2		102	70	130			

Sample ID <b>1702211-006amsd</b>	SampType: <b>MSD</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>TSP-RT-100-06</b>	Batch ID: <b>G40524</b>			RunNo: <b>40524</b>						
Prep Date:	Analysis Date: <b>2/7/2017</b>			SeqNo: <b>1270318</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702211

07-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1702211-006amsd	SampType: MSD			TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	TSP-RT-100-06	Batch ID: G40524			RunNo: 40524					
Prep Date:		Analysis Date: 2/7/2017			SeqNo: 1270318		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	44	2.9	14.41	29.77	96.4	63.2	128	3.95	20	
Surr: BFB	300		288.2		103	70	130	0	0	

Sample ID	2.5ug gro lcs	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID: G40524			RunNo: 40524					
Prep Date:		Analysis Date: 2/6/2017			SeqNo: 1270323		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	95.2	70	130			
Surr: BFB	490		500.0		97.7	70	130			

Sample ID	RB3	SampType:	MBLK		TestCode:	EPA Method 8015D Mod: Gasoline Range				
Client ID:	PBS	Batch ID:	G40524		RunNo:	40524				
Prep Date:		Analysis Date:	2/7/2017		SeqNo:	1270330	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	480		500.0		96.9	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix



B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702211**

RcptNo: **1**

Received by/date:		<b>02/06/17</b>
Logged By:	<b>Lindsay Mangin</b>	<b>2/4/2017 8:30:00 AM</b>
Completed By:	<b>Lindsay Mangin</b>	<b>2/4/2017 9:00:23 AM</b>
Reviewed By:		<b>02/06/17</b>

### Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

### Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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)

- 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"/>		

- Additional remarks:

### 18. Cooler Information

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

# Chain-of-Custody Record

Client: **BP AMERICA**

**BLADE ENVIRONMENTAL INC.**

Mailing Address:

Phone #: **505-320-1183**

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

**FLORANCE GC J 16A**

Project #:

**TREATED STOCK PILES**

Project Manager:

**J. Blago**

Sampler:

**J. Blago**

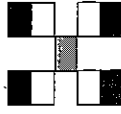
On-site: ☒ Yes ☐ No

Sample Temperature: **1.3**

Date	Time	Matrix	Sample Request ID
2/3/17	9:47	Soil	TSP-RT-100-01
"	9:50	"	TSP-RT-100-02
"	9:53	"	TSP-RT-100-03
"	9:56	"	TSP-RT-100-04
"	9:59	"	TSP-RT-100-05
"	10:02	"	TSP-RT-100-06
"	10:05	"	TSP-RT-100-07
"	10:08	"	TSP-RT-100-08
"	10:11	"	TSP-RT-100-09
"	10:14	"	TSP-RT-100-10

Container Type and #	Preservative Type	HEAL No.
4oz x 1	cool	17022-11
		-001
		-002
		-003
		-004
		-005
		-006
		-007
		-008
		-009
		-010

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
		X									



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

Date: 2/3/17 Time: 12:36 Relinquished by: **John Blago**

Date: 2/3/17 Time: 12:36 Received by: **John Blago**

Remarks: **Bill BP**

CONTACT: **STEVE MOSKAL**

VIB: **VHIXONJEVRM**

WBS ELEMENT: **L1-0016D-E:FLRNC-GCJ16A**

Note: **Samples treated with H<sub>2</sub>O<sub>2</sub>**



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

February 07, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702210

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/4/2017 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](http://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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702210**

Date Reported: **2/7/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-01

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:24:00 AM

**Lab ID:** 1702210-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	27	9.2		mg/Kg	1	2/6/2017 10:51:59 AM	30057
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2017 10:51:59 AM	30057
Surr: DNOP	104	70-130		%Rec	1	2/6/2017 10:51:59 AM	30057
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	3.7	3.2		mg/Kg	1	2/6/2017 10:18:11 AM	30023
Surr: BFB	153	68.3-144	S	%Rec	1	2/6/2017 10:18:11 AM	30023

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702210**

Date Reported: **2/7/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-02

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:27:00 AM

**Lab ID:** 1702210-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	49	9.9		mg/Kg	1	2/6/2017 11:13:43 AM	30057
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/6/2017 11:13:43 AM	30057
Surr: DNOP	108	70-130		%Rec	1	2/6/2017 11:13:43 AM	30057
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.5	3.5		mg/Kg	1	2/6/2017 11:05:14 AM	30023
Surr: BFB	166	68.3-144	S	%Rec	1	2/6/2017 11:05:14 AM	30023

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702210**

Date Reported: **2/7/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-03

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:31:00 AM

**Lab ID:** 1702210-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	28	9.2		mg/Kg	1	2/6/2017 11:35:19 AM	30057
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2017 11:35:19 AM	30057
Surr: DNOP	106	70-130		%Rec	1	2/6/2017 11:35:19 AM	30057
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	3.3	3.0		mg/Kg	1	2/6/2017 11:28:52 AM	30023
Surr: BFB	155	68.3-144	S	%Rec	1	2/6/2017 11:28:52 AM	30023

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702210

Date Reported: 2/7/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-04

**Project:** Florance GC J 16A

**Collection Date:** 2/3/2017 9:39:00 AM

**Lab ID:** 1702210-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/4/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.8		mg/Kg	1	2/6/2017 11:56:58 AM	30057
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2017 11:56:58 AM	30057
Surr: DNOP	107	70-130		%Rec	1	2/6/2017 11:56:58 AM	30057
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.2	3.2		mg/Kg	1	2/6/2017 11:52:25 AM	30023
Surr: BFB	163	68.3-144	S	%Rec	1	2/6/2017 11:52:25 AM	30023

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702210

07-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30057	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30057			RunNo: 40519					
Prep Date:	2/6/2017	Analysis Date: 2/6/2017			SeqNo: 1269695		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	70	130			

Sample ID	LCS-30057		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30057		RunNo: 40519					
Prep Date:	2/6/2017		Analysis Date: 2/6/2017		SeqNo: 1269900		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	93.1	63.8	116			
Surr: DNOP	4.8		5.000		96.1	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702210

07-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30023		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30023		RunNo: 40531					
Prep Date:	2/2/2017		Analysis Date: 2/6/2017		SeqNo: 1270184		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	900		1000		90.4	68.3	144			

Sample ID	LCS-30023		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30023		RunNo: 40531					
Prep Date:	2/2/2017		Analysis Date: 2/6/2017		SeqNo: 1270185		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	97.8	76.4	125			
Surr: BFB	970		1000		97.2	68.3	144			

Sample ID	MB-30051		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30051		RunNo: 40531					
Prep Date:	2/3/2017		Analysis Date: 2/6/2017		SeqNo: 1270196		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	68.3	144			

Sample ID	LCS-30051		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30051		RunNo: 40531					
Prep Date:	2/3/2017		Analysis Date: 2/6/2017		SeqNo: 1270197		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.5	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702210**

RcptNo: **1**

Received by/date:

*[Signature]*

**02/04/17**

Logged By:

**Lindsay Mangin**

**2/4/2017 8:30:00 AM**

*[Signature]*

Completed By:

**Lindsay Mangin**

**2/4/2017 8:56:04 AM**

*[Signature]*

Reviewed By:

*[Signature]*

**02/06/17**

## 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)

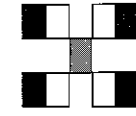
16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<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	1.3	Good	Yes			



## Analysis Request

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
2/3/2017	1236	Jay Bloss	Chant Wadsworth	2/3/2017	1236	BILL BP CONTACT: STEVE MOSKAL VIB: VHIXON@EVRM WBS ELEMENT: L1-0016D-E:FLRNC GCT 16
Date:	Time:	Relinquished by:	Received by:	Date	Time	Note: Samples treated with $H_2O_2$
2/3/17	1620	Chant Wadsworth	Chant Wadsworth	02/04/17	0830	



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

February 09, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702358

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 2/8/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702358**

Date Reported: **2/9/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-05

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 1:43:00 PM

**Lab ID:** 1702358-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	9.3		mg/Kg	1	2/8/2017 9:40:03 AM	30107
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/8/2017 9:40:03 AM	30107
Surr: DNOP	96.7	70-130		%Rec	1	2/8/2017 9:40:03 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	14	3.2		mg/Kg	1	2/8/2017 10:26:12 AM	30080
Surr: BFB	289	54-150	S	%Rec	1	2/8/2017 10:26:12 AM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702358**

Date Reported: **2/9/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-06

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 1:46:00 PM

**Lab ID:** 1702358-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	20	9.7		mg/Kg	1	2/8/2017 10:01:51 AM	30107
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/8/2017 10:01:51 AM	30107
Surr: DNOP	96.8	70-130		%Rec	1	2/8/2017 10:01:51 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	13	3.3		mg/Kg	1	2/8/2017 10:49:49 AM	30080
Surr: BFB	284	54-150	S	%Rec	1	2/8/2017 10:49:49 AM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702358**

Date Reported: **2/9/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-07

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 1:49:00 PM

**Lab ID:** 1702358-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	2/8/2017 10:23:35 AM	30107
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/8/2017 10:23:35 AM	30107
Surr: DNOP	96.3	70-130		%Rec	1	2/8/2017 10:23:35 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	16	3.4		mg/Kg	1	2/8/2017 11:13:32 AM	30080
Surr: BFB	318	54-150	S	%Rec	1	2/8/2017 11:13:32 AM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702358

Date Reported: 2/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-08

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 1:53:00 PM

**Lab ID:** 1702358-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	21	9.5		mg/Kg	1	2/8/2017 10:45:08 AM	30107
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/8/2017 10:45:08 AM	30107
Surr: DNOP	98.4	70-130		%Rec	1	2/8/2017 10:45:08 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	12	3.2		mg/Kg	1	2/8/2017 11:37:18 AM	30080
Surr: BFB	261	54-150	S	%Rec	1	2/8/2017 11:37:18 AM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702358**

Date Reported: **2/9/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-09

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 1:57:00 PM

**Lab ID:** 1702358-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	24	10		mg/Kg	1	2/8/2017 11:06:49 AM	30107
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/8/2017 11:06:49 AM	30107
Surr: DNOP	98.3	70-130		%Rec	1	2/8/2017 11:06:49 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	3.3		mg/Kg	1	2/8/2017 12:01:07 PM	30080
Surr: BFB	333	54-150	S	%Rec	1	2/8/2017 12:01:07 PM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702358**

Date Reported: **2/9/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-10

**Project:** Florance GC J 16A

**Collection Date:** 2/7/2017 2:01:00 PM

**Lab ID:** 1702358-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/8/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	53	9.2		mg/Kg	1	2/8/2017 11:28:23 AM	30107
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/8/2017 11:28:23 AM	30107
Surr: DNOP	98.0	70-130		%Rec	1	2/8/2017 11:28:23 AM	30107
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	28	3.1		mg/Kg	1	2/8/2017 12:24:53 PM	30080
Surr: BFB	401	54-150	S	%Rec	1	2/8/2017 12:24:53 PM	30080

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702358

09-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30107		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30107		RunNo: 40576					
Prep Date:	2/8/2017		Analysis Date: 2/8/2017		SeqNo: 1271435		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	103	63.8	116			
Surr: DNOP	4.7		5.000		94.2	70	130			

Sample ID	MB-30107		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30107		RunNo: 40576					
Prep Date:	2/8/2017		Analysis Date: 2/8/2017		SeqNo: 1271436		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		97.6	70	130			

Sample ID	1702358-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-RT-500-05		Batch ID: 30107		RunNo: 40576					
Prep Date:	2/8/2017		Analysis Date: 2/8/2017		SeqNo: 1271712		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.3	46.64	25.76	81.5	51.6	130			
Surr: DNOP	4.6		4.664		98.6	70	130			

Sample ID	1702358-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-RT-500-05		Batch ID: 30107		RunNo: 40576					
Prep Date:	2/8/2017		Analysis Date: 2/8/2017		SeqNo: 1271713		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	71	9.6	48.17	25.76	93.5	51.6	130	10.4	20	
Surr: DNOP	4.8		4.817		100	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702358

09-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30080		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30080		RunNo: 40585					
Prep Date:	2/7/2017		Analysis Date: 2/8/2017		SeqNo: 1272111		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	870		1000		87.4	54	150			

Sample ID	LCS-30080		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30080		RunNo: 40585					
Prep Date:	2/7/2017		Analysis Date: 2/8/2017		SeqNo: 1272112		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.7	76.4	125			
Surr: BFB	930		1000		93.1	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1702358

RcptNo: 1

Received by/date:

*[Signature]*

02/08/17

Logged By: Lindsay Mangin

2/8/2017 7:00:00 AM

*[Signature]*

Completed By: Lindsay Mangin

2/8/2017 7:36:50 AM

*[Signature]*

Reviewed By:

IO

02/08/17

### 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	2.8	Good	Yes			

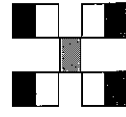


## Chain-of-Custody Record

UNITS/STANDARD TIME

DATE

SAME DAY



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: BP America

Mailing Address:

Phone #: 505-320-1103

email or Fax#:

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

☐ Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

☐ Standard

☐ Level 4 (Full Validation)

☐ Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

☐ Standard

☐ Level 4 (Full Validation)

☐ Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

☐ Standard

☐ Level 4 (Full Validation)

☐ Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

☐ Standard

☐ Level 4 (Full Validation)

☐ Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

Project Manager:

J. Blabbe

Sampler: J. Blabbe

On Ice: ☒ Yes ☐ No

Sample Temperature: 28

Container Type and #

Preservative Type

HEAL No.

1702358

-001

-002

-003

-004

-005

-006

Received by:

Date

Time

2/7/17

1615

Received by:

Date

Time

2/7/17

1831

Project #: TREATED SOIL PILES

Project Manager: J. Blabbe

Sampler: J. Blabbe

On Ice: ☒ Yes ☐ No

Sample Temperature: 28

Container Type and #

Preservative Type

HEAL No.

1702358

-001

-002

-003

-004

-005

-006

Remarks:

Bill BP

Contract: STEVE MASKAL

VID: VHIXONEVRM

WBS ELEMENT: LI-0016D-E:FLRNC-GCJT16A

Note: Samples treated with H<sub>2</sub>O<sub>2</sub>

Analysis Request

BTX + MTBE + TMBs (8021)

BTX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRO / MRO)

TPH (Method 418.1)

EDB (Method 504.1)

PAHs (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCBs

8260B (VOA)

8270 (Semi-VOA)

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 13, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702507

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/10/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702507**

Date Reported: **2/13/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-300-11

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:31:00 AM

**Lab ID:** 1702507-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.9		mg/Kg	1	2/10/2017 10:02:00 AM	30153
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/10/2017 10:02:00 AM	30153
Surr: DNOP	101	70-130		%Rec	1	2/10/2017 10:02:00 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	23	3.6		mg/Kg	1	2/10/2017 11:27:49 AM	30145
Surr: BFB	333	54-150	S	%Rec	1	2/10/2017 11:27:49 AM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702507**

Date Reported: **2/13/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-12

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:33:00 AM

**Lab ID:** 1702507-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	30	10		mg/Kg	1	2/10/2017 10:25:20 AM	30153
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/10/2017 10:25:20 AM	30153
Surr: DNOP	104	70-130		%Rec	1	2/10/2017 10:25:20 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	22	3.6		mg/Kg	1	2/10/2017 12:06:09 PM	30145
Surr: BFB	352	54-150	S	%Rec	1	2/10/2017 12:06:09 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702507

Date Reported: 2/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-RT-500-13

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:34:00 AM

**Lab ID:** 1702507-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	9.6		mg/Kg	1	2/10/2017 10:52:18 AM	30153
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/10/2017 10:52:18 AM	30153
Surr: DNOP	104	70-130		%Rec	1	2/10/2017 10:52:18 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	3.4		mg/Kg	1	2/10/2017 12:29:39 PM	30145
Surr: BFB	355	54-150	S	%Rec	1	2/10/2017 12:29:39 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702507

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1702507-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-RT-300-11	Batch ID:	30153	RunNo:	40645					
Prep Date:	2/10/2017	Analysis Date:	2/10/2017	SeqNo:	1273721	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	9.3	46.47	23.28	75.9	51.6	130			
Surr: DNOP	4.7		4.647		101	70	130			

Sample ID	1702507-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-RT-300-11	Batch ID:	30153	RunNo:	40645					
Prep Date:	2/10/2017	Analysis Date:	2/10/2017	SeqNo:	1274104	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.9	49.26	23.28	83.6	51.6	130	9.55	20	
Surr: DNOP	5.1		4.926		103	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702507

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30145		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274052		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	880		1000		88.3	54	150			

Sample ID	LCS-30145		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274053		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.5	76.4	125			
Surr: BFB	950		1000		95.1	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified


# Sample Log-In Check List

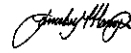
Client Name: **BLAGG**

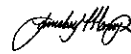
Work Order Number: **1702507**

RcptNo: **1**

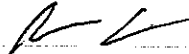
Received by/date:

 **02/10/17**

Logged By: **Lindsay Mangin**
**2/10/2017 8:30:00 AM**


Completed By: **Lindsay Mangin**
**2/10/2017 8:43:49 AM**


Reviewed By:


**2/10/17**

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:

(&lt;2 or &gt;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			







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

February 13, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702510

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 10 sample(s) on 2/10/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**

Date Reported: **2/13/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-44

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:37:00 AM

**Lab ID:** 1702510-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 11:06:43 AM	30161
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	25	9.8		mg/Kg	1	2/10/2017 10:01:01 AM	30153
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/10/2017 10:01:01 AM	30153
Surr: DNOP	98.3	70-130		%Rec	1	2/10/2017 10:01:01 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	13	3.0		mg/Kg	1	2/10/2017 12:52:50 PM	30145
Surr: BFB	270	54-150	S	%Rec	1	2/10/2017 12:52:50 PM	30145
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	2/10/2017 12:52:50 PM	30145
Toluene	ND	0.030		mg/Kg	1	2/10/2017 12:52:50 PM	30145
Ethylbenzene	ND	0.030		mg/Kg	1	2/10/2017 12:52:50 PM	30145
Xylenes, Total	ND	0.060		mg/Kg	1	2/10/2017 12:52:50 PM	30145
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/10/2017 12:52:50 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**Date Reported: **2/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-45**Project:** Florance GC J 16A**Collection Date:** 2/9/2017 11:39:00 AM**Lab ID:** 1702510-002**Matrix:** MEOH (SOIL)**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 11:19:07 AM	30161
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.7		mg/Kg	1	2/10/2017 10:22:37 AM	30153
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/10/2017 10:22:37 AM	30153
Surr: DNOP	99.9	70-130		%Rec	1	2/10/2017 10:22:37 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	16	3.3		mg/Kg	1	2/10/2017 1:15:43 PM	30145
Surr: BFB	295	54-150	S	%Rec	1	2/10/2017 1:15:43 PM	30145
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/10/2017 1:15:43 PM	30145
Toluene	ND	0.033		mg/Kg	1	2/10/2017 1:15:43 PM	30145
Ethylbenzene	ND	0.033		mg/Kg	1	2/10/2017 1:15:43 PM	30145
Xylenes, Total	ND	0.066		mg/Kg	1	2/10/2017 1:15:43 PM	30145
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	1	2/10/2017 1:15:43 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**Date Reported: **2/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-46**Project:** Florance GC J 16A**Collection Date:** 2/9/2017 11:41:00 AM**Lab ID:** 1702510-003**Matrix:** MEOH (SOIL)**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 11:31:31 AM	30161
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	18	9.8		mg/Kg	1	2/10/2017 10:44:16 AM	30153
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/10/2017 10:44:16 AM	30153
Surr: DNOP	100	70-130		%Rec	1	2/10/2017 10:44:16 AM	30153
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	11	2.9		mg/Kg	1	2/10/2017 1:38:27 PM	30145
Surr: BFB	235	54-150	S	%Rec	1	2/10/2017 1:38:27 PM	30145
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.014		mg/Kg	1	2/10/2017 1:38:27 PM	30145
Toluene	ND	0.029		mg/Kg	1	2/10/2017 1:38:27 PM	30145
Ethylbenzene	ND	0.029		mg/Kg	1	2/10/2017 1:38:27 PM	30145
Xylenes, Total	ND	0.058		mg/Kg	1	2/10/2017 1:38:27 PM	30145
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	2/10/2017 1:38:27 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**Date Reported: **2/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-47**Project:** Florance GC J 16A**Collection Date:** 2/9/2017 11:43:00 AM**Lab ID:** 1702510-004**Matrix:** MEOH (SOIL)**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 11:43:56 AM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	40	3.2		mg/Kg	1	2/10/2017 10:39:02 AM	Y40654
Surr: BFB	101	70-130		%Rec	1	2/10/2017 10:39:02 AM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	9.9		mg/Kg	1	2/10/2017 11:05:48 AM	30153
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/10/2017 11:05:48 AM	30153
Surr: DNOP	100	70-130		%Rec	1	2/10/2017 11:05:48 AM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.016		mg/Kg	1	2/10/2017 10:39:02 AM	30145
Toluene	ND	0.032		mg/Kg	1	2/10/2017 10:39:02 AM	30145
Ethylbenzene	ND	0.032		mg/Kg	1	2/10/2017 10:39:02 AM	30145
Xylenes, Total	ND	0.064		mg/Kg	1	2/10/2017 10:39:02 AM	30145
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	2/10/2017 10:39:02 AM	30145
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/10/2017 10:39:02 AM	30145
Surr: Dibromofluoromethane	90.8	70-130		%Rec	1	2/10/2017 10:39:02 AM	30145
Surr: Toluene-d8	96.8	70-130		%Rec	1	2/10/2017 10:39:02 AM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**

Date Reported: **2/13/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-48

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:45:00 AM

**Lab ID:** 1702510-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 11:56:21 AM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	39	3.1		mg/Kg	1	2/10/2017 11:08:49 AM	Y40654
Surr: BFB	104	70-130		%Rec	1	2/10/2017 11:08:49 AM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	29	9.6		mg/Kg	1	2/10/2017 11:27:30 AM	30153
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/10/2017 11:27:30 AM	30153
Surr: DNOP	100	70-130		%Rec	1	2/10/2017 11:27:30 AM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.015		mg/Kg	1	2/10/2017 11:08:49 AM	30145
Toluene	ND	0.031		mg/Kg	1	2/10/2017 11:08:49 AM	30145
Ethylbenzene	ND	0.031		mg/Kg	1	2/10/2017 11:08:49 AM	30145
Xylenes, Total	ND	0.061		mg/Kg	1	2/10/2017 11:08:49 AM	30145
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	2/10/2017 11:08:49 AM	30145
Surr: 4-Bromofluorobenzene	161	70-130	S	%Rec	1	2/10/2017 11:08:49 AM	30145
Surr: Dibromofluoromethane	92.2	70-130		%Rec	1	2/10/2017 11:08:49 AM	30145
Surr: Toluene-d8	98.5	70-130		%Rec	1	2/10/2017 11:08:49 AM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702510**Date Reported: **2/13/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-49**Project:** Florance GC J 16A**Collection Date:** 2/9/2017 11:46:00 AM**Lab ID:** 1702510-006**Matrix:** MEOH (SOIL)**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 12:08:46 PM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	12	3.6		mg/Kg	1	2/10/2017 11:38:42 AM	Y40654
Surr: BFB	88.1	70-130		%Rec	1	2/10/2017 11:38:42 AM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	35	9.6		mg/Kg	1	2/10/2017 11:49:10 AM	30153
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/10/2017 11:49:10 AM	30153
Surr: DNOP	101	70-130		%Rec	1	2/10/2017 11:49:10 AM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	2/10/2017 11:38:42 AM	30145
Toluene	ND	0.036		mg/Kg	1	2/10/2017 11:38:42 AM	30145
Ethylbenzene	ND	0.036		mg/Kg	1	2/10/2017 11:38:42 AM	30145
Xylenes, Total	ND	0.071		mg/Kg	1	2/10/2017 11:38:42 AM	30145
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%Rec	1	2/10/2017 11:38:42 AM	30145
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	2/10/2017 11:38:42 AM	30145
Surr: Dibromofluoromethane	89.3	70-130		%Rec	1	2/10/2017 11:38:42 AM	30145
Surr: Toluene-d8	95.2	70-130		%Rec	1	2/10/2017 11:38:42 AM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702510

Date Reported: 2/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-50

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:48:00 AM

**Lab ID:** 1702510-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 12:21:10 PM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	3.8		mg/Kg	1	2/10/2017 12:07:58 PM	Y40654
Surr: BFB	92.5	70-130		%Rec	1	2/10/2017 12:07:58 PM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	54	9.6		mg/Kg	1	2/10/2017 12:10:56 PM	30153
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/10/2017 12:10:56 PM	30153
Surr: DNOP	102	70-130		%Rec	1	2/10/2017 12:10:56 PM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.019		mg/Kg	1	2/10/2017 12:07:58 PM	30145
Toluene	ND	0.038		mg/Kg	1	2/10/2017 12:07:58 PM	30145
Ethylbenzene	ND	0.038		mg/Kg	1	2/10/2017 12:07:58 PM	30145
Xylenes, Total	ND	0.076		mg/Kg	1	2/10/2017 12:07:58 PM	30145
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%Rec	1	2/10/2017 12:07:58 PM	30145
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	2/10/2017 12:07:58 PM	30145
Surr: Dibromofluoromethane	91.2	70-130		%Rec	1	2/10/2017 12:07:58 PM	30145
Surr: Toluene-d8	96.4	70-130		%Rec	1	2/10/2017 12:07:58 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702510

Date Reported: 2/13/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-51

Project: Florance GC J 16A

Collection Date: 2/9/2017 11:50:00 AM

Lab ID: 1702510-008

Matrix: MEOH (SOIL)

Received Date: 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 12:33:34 PM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	16	3.6		mg/Kg	1	2/10/2017 12:36:51 PM	Y40654
Surr: BFB	91.3	70-130		%Rec	1	2/10/2017 12:36:51 PM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	34	9.6		mg/Kg	1	2/10/2017 12:02:44 PM	30153
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/10/2017 12:02:44 PM	30153
Surr: DNOP	108	70-130		%Rec	1	2/10/2017 12:02:44 PM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	2/10/2017 12:36:51 PM	30145
Toluene	ND	0.036		mg/Kg	1	2/10/2017 12:36:51 PM	30145
Ethylbenzene	ND	0.036		mg/Kg	1	2/10/2017 12:36:51 PM	30145
Xylenes, Total	ND	0.072		mg/Kg	1	2/10/2017 12:36:51 PM	30145
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%Rec	1	2/10/2017 12:36:51 PM	30145
Surr: 4-Bromofluorobenzene	116	70-130		%Rec	1	2/10/2017 12:36:51 PM	30145
Surr: Dibromofluoromethane	89.7	70-130		%Rec	1	2/10/2017 12:36:51 PM	30145
Surr: Toluene-d8	99.1	70-130		%Rec	1	2/10/2017 12:36:51 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702510

Date Reported: 2/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-52

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:52:00 AM

**Lab ID:** 1702510-009

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 1:10:48 PM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	14	3.5		mg/Kg	1	2/10/2017 1:05:53 PM	Y40654
Surr: BFB	93.4	70-130		%Rec	1	2/10/2017 1:05:53 PM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	28	9.2		mg/Kg	1	2/10/2017 11:39:09 AM	30153
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/10/2017 11:39:09 AM	30153
Surr: DNOP	110	70-130		%Rec	1	2/10/2017 11:39:09 AM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	2/10/2017 1:05:53 PM	30145
Toluene	ND	0.035		mg/Kg	1	2/10/2017 1:05:53 PM	30145
Ethylbenzene	ND	0.035		mg/Kg	1	2/10/2017 1:05:53 PM	30145
Xylenes, Total	ND	0.069		mg/Kg	1	2/10/2017 1:05:53 PM	30145
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	2/10/2017 1:05:53 PM	30145
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	2/10/2017 1:05:53 PM	30145
Surr: Dibromofluoromethane	89.7	70-130		%Rec	1	2/10/2017 1:05:53 PM	30145
Surr: Toluene-d8	97.4	70-130		%Rec	1	2/10/2017 1:05:53 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702510

Date Reported: 2/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-53

**Project:** Florance GC J 16A

**Collection Date:** 2/9/2017 11:54:00 AM

**Lab ID:** 1702510-010

**Matrix:** MEOH (SOIL)

**Received Date:** 2/10/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/10/2017 1:23:13 PM	30161
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	3.4		mg/Kg	1	2/10/2017 1:35:24 PM	Y40654
Surr: BFB	93.8	70-130		%Rec	1	2/10/2017 1:35:24 PM	Y40654
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	9.1		mg/Kg	1	2/10/2017 11:15:45 AM	30153
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/10/2017 11:15:45 AM	30153
Surr: DNOP	103	70-130		%Rec	1	2/10/2017 11:15:45 AM	30153
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	2/10/2017 1:35:24 PM	30145
Toluene	ND	0.034		mg/Kg	1	2/10/2017 1:35:24 PM	30145
Ethylbenzene	ND	0.034		mg/Kg	1	2/10/2017 1:35:24 PM	30145
Xylenes, Total	ND	0.067		mg/Kg	1	2/10/2017 1:35:24 PM	30145
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	2/10/2017 1:35:24 PM	30145
Surr: 4-Bromofluorobenzene	117	70-130		%Rec	1	2/10/2017 1:35:24 PM	30145
Surr: Dibromofluoromethane	91.2	70-130		%Rec	1	2/10/2017 1:35:24 PM	30145
Surr: Toluene-d8	99.5	70-130		%Rec	1	2/10/2017 1:35:24 PM	30145

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30161		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30161		RunNo: 40678					
Prep Date:	2/10/2017		Analysis Date: 2/10/2017		SeqNo: 1274422		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30161		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30161		RunNo: 40678					
Prep Date:	2/10/2017		Analysis Date: 2/10/2017		SeqNo: 1274423		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30153		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30153		RunNo: 40644					
Prep Date:	2/10/2017		Analysis Date: 2/10/2017		SeqNo: 1273571		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.7	63.8	116			
Surr: DNOP	4.7		5.000		93.8	70	130			

Sample ID	MB-30153		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30153		RunNo: 40644					
Prep Date:	2/10/2017		Analysis Date: 2/10/2017		SeqNo: 1273572		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.3	70	130			

Sample ID	LCS-30134		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30134		RunNo: 40644					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274158		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.5	70	130			

Sample ID	MB-30134		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30134		RunNo: 40644					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274159		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.6	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30145		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274052		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	880		1000		88.3	54	150			

Sample ID	LCS-30145		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274053		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.5	76.4	125			
Surr: BFB	950		1000		95.1	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30145		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274068		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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-30145		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30145		RunNo: 40653					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274069		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	75.2	115			
Toluene	0.99	0.050	1.000	0	98.9	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	101	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	101	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	mb-30145		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 30145		RunNo: 40654					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274226		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		91.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.4	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID	lcs-30145		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 30145		RunNo: 40654					
Prep Date:	2/9/2017		Analysis Date: 2/10/2017		SeqNo: 1274227		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	70	130			
Toluene	0.96	0.050	1.000	0	96.2	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.8	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.7	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.5	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702510

13-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	Y40654	RunNo:	40654					
Prep Date:		Analysis Date:	2/10/2017	SeqNo:	1274252	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	420		500.0		83.4	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	Y40654	RunNo:	40654					
Prep Date:		Analysis Date:	2/10/2017	SeqNo:	1274253	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	105	70	130			
Surr: BFB	450		500.0		90.3	70	130			

Sample ID	1702510-004ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	TSP-47	Batch ID:	Y40654	RunNo:	40654					
Prep Date:		Analysis Date:	2/10/2017	SeqNo:	1274254	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	55	3.2	16.11	40.24	92.7	63.2	128			
Surr: BFB	370		322.2		115	70	130			

Sample ID	1702510-004amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	TSP-47	Batch ID:	Y40654	RunNo:	40654					
Prep Date:		Analysis Date:	2/10/2017	SeqNo:	1274255	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	55	3.2	16.11	40.24	92.1	63.2	128	0.175	20	
Surr: BFB	360		322.2		112	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702510**

RcptNo: **1**

Received by/date:

Logged By:

**Lindsay Mangin**

**2/10/2017 8:30:00 AM**

Completed By:

**Lindsay Mangin**

**2/10/2017 8:49:39 AM**

Reviewed By:

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:

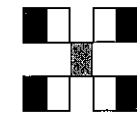
17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# Chain-of-Custody Record

Client: <u>BP America</u>			
Mailing Address: <u>Blubb Engineering INC.</u>			
Phone #: <u>505-320-1123</u>			
email or Fax#:			
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other			
<input type="checkbox"/> EDD (Type)			
Date	Time	Matrix	Sample Request ID
11/13/2017	1137	Soil	TSP-44
"	1139	"	TSP-45
"	1141	"	TSP-46
"	1143	"	TSP-47
"	1145	"	TSP-48
"	1146	"	TSP-49
"	1148	"	TSP-50
"	1150	"	TSP-51
"	1152	"	TSP-52
"	1154	"	TSP-53
Relinquished by: <u>Jeff Blagg</u>			
Date: <u>3/9/2017</u>	Time: <u>1449</u>		
Relinquished by: <u>Charles Walters</u>			
Date: <u>2/9/1917</u>	Time: <u>0210/170830</u>		



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

## Analysis Request

BTEX + MTBE + THMs (8021)	X	BTEX + MTBE (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)		EDB (Method 504.1)		PAH's (8310 or 8270 SIMS)		RCRA 8 Metals		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCB's		8260B (VOA)		8270 (Semi-VOA)	X	CHLORIDE		Air Bubbles (Y or N)	
---------------------------	---	------------------------	---	-----------------------------	---	--------------------	--	--------------------	--	---------------------------	--	---------------	--	--	--	------------------------------	--	-------------	--	-----------------	---	----------	--	----------------------	--

Remarks: Bill BP  
Contact: Steve Mestel  
VID: VHIXON ERM  
WBS Element: LI-0016D-E:FLRNCGCT16A  
Note: Samples treated with H<sub>2</sub>O<sub>2</sub>



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

February 20, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702783

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/17/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-54

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:12:00 PM

**Lab ID:** 1702783-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 11:41:51 AM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	17	9.1		mg/Kg	1	2/17/2017 10:10:06 AM	30267
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/17/2017 10:10:06 AM	30267
Surr: DNOP	106	70-130		%Rec	1	2/17/2017 10:10:06 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/17/2017 11:02:16 AM	G40829
Surr: BFB	116	54-150		%Rec	1	2/17/2017 11:02:16 AM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/17/2017 11:02:16 AM	B40829
Toluene	ND	0.031		mg/Kg	1	2/17/2017 11:02:16 AM	B40829
Ethylbenzene	ND	0.031		mg/Kg	1	2/17/2017 11:02:16 AM	B40829
Xylenes, Total	ND	0.062		mg/Kg	1	2/17/2017 11:02:16 AM	B40829
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	2/17/2017 11:02:16 AM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-55

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:15:00 PM

**Lab ID:** 1702783-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 11:54:15 AM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	9.2	9.1		mg/Kg	1	2/17/2017 10:31:30 AM	30267
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/17/2017 10:31:30 AM	30267
Surr: DNOP	111	70-130		%Rec	1	2/17/2017 10:31:30 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	2/17/2017 11:25:51 AM	G40829
Surr: BFB	109	54-150		%Rec	1	2/17/2017 11:25:51 AM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	2/17/2017 11:25:51 AM	B40829
Toluene	ND	0.036		mg/Kg	1	2/17/2017 11:25:51 AM	B40829
Ethylbenzene	ND	0.036		mg/Kg	1	2/17/2017 11:25:51 AM	B40829
Xylenes, Total	ND	0.072		mg/Kg	1	2/17/2017 11:25:51 AM	B40829
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	2/17/2017 11:25:51 AM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-56

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:18:00 PM

**Lab ID:** 1702783-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 12:31:29 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	15	9.6		mg/Kg	1	2/17/2017 10:53:08 AM	30267
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2017 10:53:08 AM	30267
Surr: DNOP	103	70-130		%Rec	1	2/17/2017 10:53:08 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	2/17/2017 11:49:29 AM	G40829
Surr: BFB	96.6	54-150		%Rec	1	2/17/2017 11:49:29 AM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/17/2017 11:49:29 AM	B40829
Toluene	ND	0.033		mg/Kg	1	2/17/2017 11:49:29 AM	B40829
Ethylbenzene	ND	0.033		mg/Kg	1	2/17/2017 11:49:29 AM	B40829
Xylenes, Total	ND	0.065		mg/Kg	1	2/17/2017 11:49:29 AM	B40829
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	2/17/2017 11:49:29 AM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-57

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:21:00 PM

**Lab ID:** 1702783-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 12:43:53 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/17/2017 11:14:50 AM	30267
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2017 11:14:50 AM	30267
Surr: DNOP	104	70-130		%Rec	1	2/17/2017 11:14:50 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	2/17/2017 12:12:49 PM	G40829
Surr: BFB	98.3	54-150		%Rec	1	2/17/2017 12:12:49 PM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/17/2017 12:12:49 PM	B40829
Toluene	ND	0.034		mg/Kg	1	2/17/2017 12:12:49 PM	B40829
Ethylbenzene	ND	0.034		mg/Kg	1	2/17/2017 12:12:49 PM	B40829
Xylenes, Total	ND	0.069		mg/Kg	1	2/17/2017 12:12:49 PM	B40829
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	2/17/2017 12:12:49 PM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-58

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:23:00 PM

**Lab ID:** 1702783-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 12:56:18 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	12	9.8		mg/Kg	1	2/17/2017 11:36:30 AM	30267
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2017 11:36:30 AM	30267
Surr: DNOP	101	70-130		%Rec	1	2/17/2017 11:36:30 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	2/17/2017 12:36:26 PM	G40829
Surr: BFB	106	54-150		%Rec	1	2/17/2017 12:36:26 PM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/17/2017 12:36:26 PM	B40829
Toluene	ND	0.032		mg/Kg	1	2/17/2017 12:36:26 PM	B40829
Ethylbenzene	ND	0.032		mg/Kg	1	2/17/2017 12:36:26 PM	B40829
Xylenes, Total	ND	0.064		mg/Kg	1	2/17/2017 12:36:26 PM	B40829
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	2/17/2017 12:36:26 PM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-59

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:25:00 PM

**Lab ID:** 1702783-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 1:08:43 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	50	9.7		mg/Kg	1	2/17/2017 11:58:05 AM	30267
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2017 11:58:05 AM	30267
Surr: DNOP	105	70-130		%Rec	1	2/17/2017 11:58:05 AM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.8	3.2		mg/Kg	1	2/17/2017 1:00:00 PM	G40829
Surr: BFB	150	54-150	S	%Rec	1	2/17/2017 1:00:00 PM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/17/2017 1:00:00 PM	B40829
Toluene	ND	0.032		mg/Kg	1	2/17/2017 1:00:00 PM	B40829
Ethylbenzene	ND	0.032		mg/Kg	1	2/17/2017 1:00:00 PM	B40829
Xylenes, Total	ND	0.065		mg/Kg	1	2/17/2017 1:00:00 PM	B40829
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	2/17/2017 1:00:00 PM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-60

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:27:00 PM

**Lab ID:** 1702783-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 1:21:07 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	64	9.7		mg/Kg	1	2/17/2017 12:19:40 PM	30267
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/17/2017 12:19:40 PM	30267
Surr: DNOP	102	70-130		%Rec	1	2/17/2017 12:19:40 PM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	8.0	3.4		mg/Kg	1	2/17/2017 1:23:31 PM	G40829
Surr: BFB	188	54-150	S	%Rec	1	2/17/2017 1:23:31 PM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/17/2017 1:23:31 PM	B40829
Toluene	ND	0.034		mg/Kg	1	2/17/2017 1:23:31 PM	B40829
Ethylbenzene	ND	0.034		mg/Kg	1	2/17/2017 1:23:31 PM	B40829
Xylenes, Total	ND	0.069		mg/Kg	1	2/17/2017 1:23:31 PM	B40829
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	2/17/2017 1:23:31 PM	B40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702783

Date Reported: 2/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-61

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 1:28:00 PM

**Lab ID:** 1702783-008

**Matrix:** MEOH (SOIL)

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/17/2017 1:33:31 PM	30276
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	63	9.9		mg/Kg	1	2/17/2017 12:41:15 PM	30267
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2017 12:41:15 PM	30267
Surr: DNOP	102	70-130		%Rec	1	2/17/2017 12:41:15 PM	30267
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	9.8	3.3		mg/Kg	1	2/17/2017 1:46:59 PM	G40829
Surr: BFB	218	54-150	S	%Rec	1	2/17/2017 1:46:59 PM	G40829
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/17/2017 1:46:59 PM	R40829
Toluene	ND	0.033		mg/Kg	1	2/17/2017 1:46:59 PM	R40829
Ethylbenzene	ND	0.033		mg/Kg	1	2/17/2017 1:46:59 PM	R40829
Xylenes, Total	ND	0.066		mg/Kg	1	2/17/2017 1:46:59 PM	R40829
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	2/17/2017 1:46:59 PM	R40829

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702783

20-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30276		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30276		RunNo: 40822					
Prep Date:	2/17/2017		Analysis Date: 2/17/2017		SeqNo: 1279310		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30276		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30276		RunNo: 40822					
Prep Date:	2/17/2017		Analysis Date: 2/17/2017		SeqNo: 1279311		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702783

20-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30267		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30267		RunNo: 40813					
Prep Date:	2/17/2017		Analysis Date: 2/17/2017		SeqNo: 1278706		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	63.8	116			
Surr: DNOP	5.3		5.000		107	70	130			

Sample ID	MB-30267		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30267		RunNo:	40813				
Prep Date:	2/17/2017		Analysis Date:	2/17/2017		SeqNo:	1278707		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.4		10.00		94.4	70	130				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702783

20-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G40829	RunNo:	40829					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279140	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	860		1000		85.8	54	150			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40829	RunNo:	40829					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279141	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	94.7	76.4	125			
Surr: BFB	920		1000		91.7	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702783

20-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B40829	RunNo:	40829					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279151	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B40829	RunNo:	40829					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1279152	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.8	75.2	115			
Toluene	0.91	0.050	1.000	0	91.5	80.7	112			
Ethylbenzene	0.90	0.050	1.000	0	89.9	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	90.6	79.2	115			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

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P Sample pH Not In Range  
RL Reporting Detection Limit  
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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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1702783

RcptNo: 1

Received by/date:

AG

02/17/17

Logged By:

Ashley Gallegos

2/17/2017 6:00:00 AM

AG

Completed By:

Ashley Gallegos

2/17/2017 6:28:36 AM

AG

Reviewed By:

AT 02/17/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

<b>Chain-of-Custody Record</b>		Turn-Around Time: <b>ASAP</b> <b>SAME DAY</b>
Client: <b>BP AMERICA</b>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> <b>Rush</b>	
Mailing Address: <b>BLAGG ENGINEERING INC</b>		Project Name: <b>FLORANCE GC J 16A</b>

Turn-Around Time: ASAP  
SAME DAY

☐ Standard ☒ Rush

Project Name: FLORANCE GC J 16A

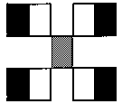
Chain-of-Custody Record
Client: BP AMERICA
BLAGG ENGINEERING INC
Mailing Address:

Project #:	TREATED SOIL PILES		
Phone #: (505) 320-1123			
email or Fax#:			
QA/QC Package:			
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)		
Accreditation			
<input type="checkbox"/> NELAP	<input type="checkbox"/> Other		
<input type="checkbox"/> EDD (Type)			
Project Manager:	J. Blalock		
Sampler:	J. Blalock		
On Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Temperature:	1-8		

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10/6/2017	1312	SOIL	TSP-54	4oz x 1	COOL	1702783
	1315		TSP-55			-001
	1318		TSP-56			-002
	1321		TSP-57			-003
	1323		TSP-58			-004
	1325		TSP-59			-005
	1327		TSP-60			-006
	1328		TSP-61			-007
						-008

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/16/2017	1705	Jeff Bogg	Art Woot	2/16/2017	1705
7/16/17	1857	Stubs Woot	John m. Gause	02/17/17	0000

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this.



[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX + MTBE + <del>THMs</del> (8021)	X	
BTEX + MTBE + TPH (Gas only)		
TPH 8015B (GRO / DRO / MRO)	X	
TPH (Method 418.1)		
EDB (Method 504.1)		
PAH's (8310 or 8270 SIMS)		
RCRA 8 Metals		
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		
8081 Pesticides / 8082 PCB's		
8260B (VOA)		
8270 (Semi-VOA)		
CHLORIDE	X	
Air Bubbles (Y or N)		

Remarks: **BUL BP**  
CONTACT: STEVE MOSKAL  
VID: VHIXON EVRM  
WBS ELEMENT: L1-00 16D-E: FURNCGCT16A  
Note: Samples treated with H<sub>2</sub>O<sub>2</sub>

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
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February 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702999

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 2/23/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702999**

Date Reported: **2/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-62

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:15:00 PM

**Lab ID:** 1702999-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 12:57:27 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	67	9.6		mg/Kg	1	2/23/2017 10:46:20 AM	30360
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/23/2017 10:46:20 AM	30360
Surr: DNOP	104	70-130		%Rec	1	2/23/2017 10:46:20 AM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/23/2017 9:59:17 AM	G40945
Surr: BFB	115	54-150		%Rec	5	2/23/2017 9:59:17 AM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	2/23/2017 9:59:17 AM	B40945
Toluene	ND	0.17		mg/Kg	5	2/23/2017 9:59:17 AM	B40945
Ethylbenzene	ND	0.17		mg/Kg	5	2/23/2017 9:59:17 AM	B40945
Xylenes, Total	ND	0.33		mg/Kg	5	2/23/2017 9:59:17 AM	B40945
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	5	2/23/2017 9:59:17 AM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-63

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:19:00 PM

**Lab ID:** 1702999-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 1:09:52 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	100	9.3		mg/Kg	1	2/23/2017 11:07:59 AM	30360
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/23/2017 11:07:59 AM	30360
Surr: DNOP	109	70-130		%Rec	1	2/23/2017 11:07:59 AM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	2/23/2017 10:25:46 AM	G40945
Surr: BFB	136	54-150		%Rec	5	2/23/2017 10:25:46 AM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.081		mg/Kg	5	2/23/2017 10:25:46 AM	B40945
Toluene	ND	0.16		mg/Kg	5	2/23/2017 10:25:46 AM	B40945
Ethylbenzene	ND	0.16		mg/Kg	5	2/23/2017 10:25:46 AM	B40945
Xylenes, Total	ND	0.33		mg/Kg	5	2/23/2017 10:25:46 AM	B40945
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	2/23/2017 10:25:46 AM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-64

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:22:00 PM

**Lab ID:** 1702999-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 1:22:17 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	70	9.6		mg/Kg	1	2/23/2017 11:29:35 AM	30360
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/23/2017 11:29:35 AM	30360
Surr: DNOP	102	70-130		%Rec	1	2/23/2017 11:29:35 AM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	15		mg/Kg	5	2/23/2017 10:52:07 AM	G40945
Surr: BFB	136	54-150		%Rec	5	2/23/2017 10:52:07 AM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.077		mg/Kg	5	2/23/2017 10:52:07 AM	B40945
Toluene	ND	0.15		mg/Kg	5	2/23/2017 10:52:07 AM	B40945
Ethylbenzene	ND	0.15		mg/Kg	5	2/23/2017 10:52:07 AM	B40945
Xylenes, Total	ND	0.31		mg/Kg	5	2/23/2017 10:52:07 AM	B40945
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	2/23/2017 10:52:07 AM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702999**

Date Reported: **2/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-65

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:25:00 PM

**Lab ID:** 1702999-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 1:34:42 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	10	9.2		mg/Kg	1	2/23/2017 11:51:09 AM	30360
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/23/2017 11:51:09 AM	30360
Surr: DNOP	102	70-130		%Rec	1	2/23/2017 11:51:09 AM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	2/23/2017 11:18:25 AM	G40945
Surr: BFB	119	54-150		%Rec	5	2/23/2017 11:18:25 AM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.081		mg/Kg	5	2/23/2017 11:18:25 AM	B40945
Toluene	ND	0.16		mg/Kg	5	2/23/2017 11:18:25 AM	B40945
Ethylbenzene	ND	0.16		mg/Kg	5	2/23/2017 11:18:25 AM	B40945
Xylenes, Total	ND	0.32		mg/Kg	5	2/23/2017 11:18:25 AM	B40945
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	5	2/23/2017 11:18:25 AM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-66

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:27:00 PM

**Lab ID:** 1702999-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 1:47:06 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	30	9.3		mg/Kg	1	2/23/2017 12:12:43 PM	30360
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/23/2017 12:12:43 PM	30360
Surr: DNOP	101	70-130		%Rec	1	2/23/2017 12:12:43 PM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/23/2017 11:44:33 AM	G40945
Surr: BFB	125	54-150		%Rec	5	2/23/2017 11:44:33 AM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.083		mg/Kg	5	2/23/2017 11:44:33 AM	B40945
Toluene	ND	0.17		mg/Kg	5	2/23/2017 11:44:33 AM	B40945
Ethylbenzene	ND	0.17		mg/Kg	5	2/23/2017 11:44:33 AM	B40945
Xylenes, Total	ND	0.33		mg/Kg	5	2/23/2017 11:44:33 AM	B40945
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	5	2/23/2017 11:44:33 AM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-67

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:29:00 PM

**Lab ID:** 1702999-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 1:59:31 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	2/23/2017 12:34:30 PM	30360
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/23/2017 12:34:30 PM	30360
Surr: DNOP	102	70-130		%Rec	1	2/23/2017 12:34:30 PM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/23/2017 12:10:55 PM	G40945
Surr: BFB	114	54-150		%Rec	5	2/23/2017 12:10:55 PM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	2/23/2017 12:10:55 PM	B40945
Toluene	ND	0.17		mg/Kg	5	2/23/2017 12:10:55 PM	B40945
Ethylbenzene	ND	0.17		mg/Kg	5	2/23/2017 12:10:55 PM	B40945
Xylenes, Total	ND	0.34		mg/Kg	5	2/23/2017 12:10:55 PM	B40945
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	2/23/2017 12:10:55 PM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-68

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:32:00 PM

**Lab ID:** 1702999-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 2:11:55 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	2/23/2017 12:56:02 PM	30360
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/23/2017 12:56:02 PM	30360
Surr: DNOP	103	70-130		%Rec	1	2/23/2017 12:56:02 PM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	2/23/2017 12:37:14 PM	G40945
Surr: BFB	117	54-150		%Rec	5	2/23/2017 12:37:14 PM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.080		mg/Kg	5	2/23/2017 12:37:14 PM	B40945
Toluene	ND	0.16		mg/Kg	5	2/23/2017 12:37:14 PM	B40945
Ethylbenzene	ND	0.16		mg/Kg	5	2/23/2017 12:37:14 PM	B40945
Xylenes, Total	ND	0.32		mg/Kg	5	2/23/2017 12:37:14 PM	B40945
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	5	2/23/2017 12:37:14 PM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-69

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:34:00 PM

**Lab ID:** 1702999-008

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 2:24:20 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	34	9.6		mg/Kg	1	2/23/2017 1:17:45 PM	30360
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/23/2017 1:17:45 PM	30360
Surr: DNOP	99.4	70-130		%Rec	1	2/23/2017 1:17:45 PM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/23/2017 1:03:34 PM	G40945
Surr: BFB	115	54-150		%Rec	5	2/23/2017 1:03:34 PM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.083		mg/Kg	5	2/23/2017 1:03:34 PM	B40945
Toluene	ND	0.17		mg/Kg	5	2/23/2017 1:03:34 PM	B40945
Ethylbenzene	ND	0.17		mg/Kg	5	2/23/2017 1:03:34 PM	B40945
Xylenes, Total	ND	0.33		mg/Kg	5	2/23/2017 1:03:34 PM	B40945
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	2/23/2017 1:03:34 PM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702999

Date Reported: 2/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-70

**Project:** Florance GC J 16A

**Collection Date:** 2/22/2017 1:36:00 PM

**Lab ID:** 1702999-009

**Matrix:** MEOH (SOIL)

**Received Date:** 2/23/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/23/2017 2:36:45 PM	30373
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	67	9.1		mg/Kg	1	2/23/2017 1:39:24 PM	30360
Motor Oil Range Organics (MRO)	75	46		mg/Kg	1	2/23/2017 1:39:24 PM	30360
Surr: DNOP	103	70-130		%Rec	1	2/23/2017 1:39:24 PM	30360
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	2/23/2017 1:29:52 PM	G40945
Surr: BFB	119	54-150		%Rec	5	2/23/2017 1:29:52 PM	G40945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.093		mg/Kg	5	2/23/2017 1:29:52 PM	B40945
Toluene	ND	0.19		mg/Kg	5	2/23/2017 1:29:52 PM	B40945
Ethylbenzene	ND	0.19		mg/Kg	5	2/23/2017 1:29:52 PM	B40945
Xylenes, Total	ND	0.37		mg/Kg	5	2/23/2017 1:29:52 PM	B40945
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	2/23/2017 1:29:52 PM	B40945

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702999

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30373		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30373		RunNo: 40946					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282951		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30373		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30373		RunNo: 40946					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282952		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702999

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30360		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30360		RunNo: 40934					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282102		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	63.8	116			
Surr: DNOP	4.7		5.000		93.1	70	130			

Sample ID	MB-30360		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30360		RunNo: 40934					
Prep Date:	2/23/2017		Analysis Date: 2/23/2017		SeqNo: 1282103		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702999

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G40945	RunNo:	40945					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1282908	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	980		1000		98.2	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40945	RunNo:	40945					
Prep Date:		Analysis Date:	2/23/2017	SeqNo:	1282909	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	121	76.4	125			
Surr: BFB	1100		1000		113	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702999

24-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B40945</b>		RunNo: <b>40945</b>							
Prep Date:	Analysis Date: <b>2/23/2017</b>		SeqNo: <b>1282919</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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 <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B40945</b>		RunNo: <b>40945</b>							
Prep Date:	Analysis Date: <b>2/23/2017</b>		SeqNo: <b>1282920</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.1	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	101	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	104	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID <b>1702999-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-62</b>	Batch ID: <b>B40945</b>		RunNo: <b>40945</b>							
Prep Date:	Analysis Date: <b>2/23/2017</b>		SeqNo: <b>1282921</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.3	0.084	3.346	0	98.2	61.5	138			
Toluene	3.4	0.17	3.346	0.02209	100	71.4	127			
Ethylbenzene	3.4	0.17	3.346	0.02644	101	70.9	132			
Xylenes, Total	11	0.33	10.04	0.05856	105	76.2	123			
Surr: 4-Bromofluorobenzene	3.6		3.346		107	80	120			

Sample ID <b>1702999-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-62</b>	Batch ID: <b>B40945</b>		RunNo: <b>40945</b>							
Prep Date:	Analysis Date: <b>2/23/2017</b>		SeqNo: <b>1282922</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.2	0.084	3.346	0	96.9	61.5	138	1.33	20	
Toluene	3.3	0.17	3.346	0.02209	99.0	71.4	127	1.13	20	
Ethylbenzene	3.4	0.17	3.346	0.02644	102	70.9	132	0.677	20	
Xylenes, Total	11	0.33	10.04	0.05856	105	76.2	123	0.375	20	
Surr: 4-Bromofluorobenzene	3.8		3.346		112	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
1901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3973 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702999**

RcptNo: **1**

Received by/date: **AJ 02/23/17**

Logged By: **Andy Jansson 2/23/2017 8:00:00 AM**

Completed By: **Andy Jansson 02/23/17**

Reviewed By: **AJ / [Signature] 02/23/17**

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# Chain-of-Custody Record

Client: BP AMERICA  
BAKERS ENGINEERING, INC.  
Mailing Address: \_\_\_\_\_  
  
Phone #: (505) 320-1183  
email or Fax#: \_\_\_\_\_  
QA/QC Package: \_\_\_\_\_  
☒ Standard ☐ Level 4 (Full Validation)  
Accreditation  
☐ NELAP ☐ Other \_\_\_\_\_  
☐ EDD (Type) \_\_\_\_\_

Turn-Around Time: \_\_\_\_\_  
☐ Standard ☒ Rush Same Day  
Project Name: FLORANCE GC J 16A  
Project #: \_\_\_\_\_  
TREATED SOIL PILES  
Project Manager: J. Baker  
Sampler: J. Baker  
On Ice: ☒ Yes ☐ No  
Sample Temperature: 1.0°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/2/2017	1315	SOIL	TSP-62	402 x 1	Seal	1702999
	1319		TSP-63			-001
	1322		TSP-64			-002
	1325		TSP-65			-003
	1327		TSP-66			-004
	1329		TSP-67			-005
	1332		TSP-68			-006
	1334		TSP-69			-007
	1336		TSP-70			-008
						-009

Date: 12/2/2017 Time: 1716 Relinquished by: Jill Bary  
Date: 12/2/2017 Time: 1854 Relinquished by: Christine Wale  
Received by: Christine Wale Date: 12/2/2017 Time: 1716  
Received by: Cam Date: 12/3/2017 Time: 0800



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

### Analysis Request

BTEX + MTBE + TMS (8021)	X	BTEX + MTBE (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)		EDB (Method 504.1)		PAH's (8310 or 8270 SIMS)		RCRA 8 Metals		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCB's		8260B (VOA)		8270 (Semi-VOA)	X	CHLORIDE		Air Bubbles (Y or N)	
--------------------------	---	------------------------	---	-----------------------------	---	--------------------	--	--------------------	--	---------------------------	--	---------------	--	--	--	------------------------------	--	-------------	--	-----------------	---	----------	--	----------------------	--

Remarks: BILL BP  
VIB: VHXONEVRM  
WBS ELEMENT; L1-0016D-E: FLRNC GC J 16A  
CONTACT: STEVE MCKEL  
NOTE: SAMPLES TREATED WITH H<sub>2</sub>O<sub>2</sub>



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

February 28, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702B46

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/25/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-70R

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:02:00 PM

**Lab ID:** 1702B46-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 11:10:46 AM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	42	9.7		mg/Kg	1	2/27/2017 9:53:17 AM	30398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/27/2017 9:53:17 AM	30398
Surr: DNOP	98.0	70-130		%Rec	1	2/27/2017 9:53:17 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/27/2017 10:01:27 AM	G41013
Surr: BFB	116	54-150		%Rec	5	2/27/2017 10:01:27 AM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	2/27/2017 10:01:27 AM	B41013
Toluene	ND	0.17		mg/Kg	5	2/27/2017 10:01:27 AM	B41013
Ethylbenzene	ND	0.17		mg/Kg	5	2/27/2017 10:01:27 AM	B41013
Xylenes, Total	ND	0.33		mg/Kg	5	2/27/2017 10:01:27 AM	B41013
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	5	2/27/2017 10:01:27 AM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-80

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:04:00 PM

**Lab ID:** 1702B46-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 11:23:10 AM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	39	9.2		mg/Kg	1	2/27/2017 10:14:46 AM	30398
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2017 10:14:46 AM	30398
Surr: DNOP	102	70-130		%Rec	1	2/27/2017 10:14:46 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/27/2017 10:27:54 AM	G41013
Surr: BFB	116	54-150		%Rec	5	2/27/2017 10:27:54 AM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	2/27/2017 10:27:54 AM	B41013
Toluene	ND	0.17		mg/Kg	5	2/27/2017 10:27:54 AM	B41013
Ethylbenzene	ND	0.17		mg/Kg	5	2/27/2017 10:27:54 AM	B41013
Xylenes, Total	ND	0.35		mg/Kg	5	2/27/2017 10:27:54 AM	B41013
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	5	2/27/2017 10:27:54 AM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-81

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:06:00 PM

**Lab ID:** 1702B46-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 11:35:35 AM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	78	9.5		mg/Kg	1	2/27/2017 10:36:18 AM	30398
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/27/2017 10:36:18 AM	30398
Surr: DNOP	103	70-130		%Rec	1	2/27/2017 10:36:18 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/27/2017 10:54:21 AM	G41013
Surr: BFB	115	54-150		%Rec	5	2/27/2017 10:54:21 AM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	2/27/2017 10:54:21 AM	B41013
Toluene	ND	0.18		mg/Kg	5	2/27/2017 10:54:21 AM	B41013
Ethylbenzene	ND	0.18		mg/Kg	5	2/27/2017 10:54:21 AM	B41013
Xylenes, Total	ND	0.35		mg/Kg	5	2/27/2017 10:54:21 AM	B41013
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	2/27/2017 10:54:21 AM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-82

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:07:00 PM

**Lab ID:** 1702B46-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 11:47:59 AM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	60	9.6		mg/Kg	1	2/27/2017 10:57:49 AM	30398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/27/2017 10:57:49 AM	30398
Surr: DNOP	102	70-130		%Rec	1	2/27/2017 10:57:49 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/27/2017 11:21:01 AM	G41013
Surr: BFB	137	54-150		%Rec	5	2/27/2017 11:21:01 AM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	2/27/2017 11:21:01 AM	B41013
Toluene	ND	0.17		mg/Kg	5	2/27/2017 11:21:01 AM	B41013
Ethylbenzene	ND	0.17		mg/Kg	5	2/27/2017 11:21:01 AM	B41013
Xylenes, Total	ND	0.35		mg/Kg	5	2/27/2017 11:21:01 AM	B41013
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	5	2/27/2017 11:21:01 AM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-83

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:10:00 PM

**Lab ID:** 1702B46-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 12:00:24 PM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	55	9.9		mg/Kg	1	2/27/2017 11:19:20 AM	30398
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2017 11:19:20 AM	30398
Surr: DNOP	102	70-130		%Rec	1	2/27/2017 11:19:20 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/27/2017 11:47:25 AM	G41013
Surr: BFB	127	54-150		%Rec	5	2/27/2017 11:47:25 AM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	2/27/2017 11:47:25 AM	B41013
Toluene	ND	0.17		mg/Kg	5	2/27/2017 11:47:25 AM	B41013
Ethylbenzene	ND	0.17		mg/Kg	5	2/27/2017 11:47:25 AM	B41013
Xylenes, Total	ND	0.34		mg/Kg	5	2/27/2017 11:47:25 AM	B41013
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	5	2/27/2017 11:47:25 AM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-84

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:13:00 PM

**Lab ID:** 1702B46-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 12:12:49 PM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	74	9.8		mg/Kg	1	2/27/2017 11:40:51 AM	30398
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/27/2017 11:40:51 AM	30398
Surr: DNOP	103	70-130		%Rec	1	2/27/2017 11:40:51 AM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	8.6	3.3		mg/Kg	1	2/27/2017 12:13:46 PM	G41013
Surr: BFB	270	54-150	S	%Rec	1	2/27/2017 12:13:46 PM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/27/2017 12:13:46 PM	B41013
Toluene	ND	0.033		mg/Kg	1	2/27/2017 12:13:46 PM	B41013
Ethylbenzene	ND	0.033		mg/Kg	1	2/27/2017 12:13:46 PM	B41013
Xylenes, Total	ND	0.067		mg/Kg	1	2/27/2017 12:13:46 PM	B41013
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	2/27/2017 12:13:46 PM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-85

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:15:00 PM

**Lab ID:** 1702B46-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 12:25:14 PM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	54	9.7		mg/Kg	1	2/27/2017 12:02:26 PM	30398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/27/2017 12:02:26 PM	30398
Surr: DNOP	104	70-130		%Rec	1	2/27/2017 12:02:26 PM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	7.5	3.5		mg/Kg	1	2/27/2017 12:40:13 PM	G41013
Surr: BFB	235	54-150	S	%Rec	1	2/27/2017 12:40:13 PM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	2/27/2017 12:40:13 PM	B41013
Toluene	ND	0.035		mg/Kg	1	2/27/2017 12:40:13 PM	B41013
Ethylbenzene	ND	0.035		mg/Kg	1	2/27/2017 12:40:13 PM	B41013
Xylenes, Total	ND	0.071		mg/Kg	1	2/27/2017 12:40:13 PM	B41013
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	2/27/2017 12:40:13 PM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B46**

Date Reported: **2/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-86

**Project:** Florance GC J 16A

**Collection Date:** 2/24/2017 1:17:00 PM

**Lab ID:** 1702B46-008

**Matrix:** MEOH (SOIL)

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/27/2017 1:02:26 PM	30417
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	42	9.6		mg/Kg	1	2/27/2017 12:24:01 PM	30398
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/27/2017 12:24:01 PM	30398
Surr: DNOP	104	70-130		%Rec	1	2/27/2017 12:24:01 PM	30398
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	7.5	4.4		mg/Kg	1	2/27/2017 1:06:40 PM	G41013
Surr: BFB	208	54-150	S	%Rec	1	2/27/2017 1:06:40 PM	G41013
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	2/27/2017 1:06:40 PM	B41013
Toluene	ND	0.044		mg/Kg	1	2/27/2017 1:06:40 PM	B41013
Ethylbenzene	ND	0.044		mg/Kg	1	2/27/2017 1:06:40 PM	B41013
Xylenes, Total	ND	0.087		mg/Kg	1	2/27/2017 1:06:40 PM	B41013
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	2/27/2017 1:06:40 PM	B41013

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B46

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30417		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30417		RunNo: 41012					
Prep Date:	2/27/2017		Analysis Date: 2/27/2017		SeqNo: 1285131		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30417		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30417		RunNo: 41012					
Prep Date:	2/27/2017		Analysis Date: 2/27/2017		SeqNo: 1285132		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.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B46

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30398		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30398		RunNo: 40996					
Prep Date:	2/27/2017		Analysis Date: 2/27/2017		SeqNo: 1283935		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-30398		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30398		RunNo: 40996					
Prep Date:	2/27/2017		Analysis Date: 2/27/2017		SeqNo: 1283956		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	94.3	63.8	116			
Surr: DNOP	4.6		5.000		91.2	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B46

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284683	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284684	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	104	76.4	125			
Surr: BFB	1200		1000		119	54	150			

Sample ID	1702B46-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-70R	Batch ID:	G41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284690	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	100	17	83.55	0	123	61.3	150			
Surr: BFB	4600		3342		136	54	150			

Sample ID	1702B46-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-70R	Batch ID:	G41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284692	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	98	17	83.55	0	117	61.3	150	5.30	20	
Surr: BFB	4400		3342		133	54	150	0	0	

Sample ID	MB-30385	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30385	RunNo:	41013					
Prep Date:	2/24/2017	Analysis Date:	2/27/2017	SeqNo:	1284702	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	830		1000		82.5	54	150			

Sample ID	LCS-30385	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30385	RunNo:	41013					
Prep Date:	2/24/2017	Analysis Date:	2/27/2017	SeqNo:	1284703	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B46

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284736	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284749	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.5	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	104	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	108	79.2	115			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	1702B46-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-80	Batch ID:	B41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284758	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.4	0.087	3.480	0	97.3	61.5	138			
Toluene	3.5	0.17	3.480	0.01914	99.9	71.4	127			
Ethylbenzene	3.6	0.17	3.480	0.02992	103	70.9	132			
Xylenes, Total	11	0.35	10.44	0	106	76.2	123			
Surr: 4-Bromofluorobenzene	3.8		3.480		108	80	120			

Sample ID	1702B46-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-80	Batch ID:	B41013	RunNo:	41013					
Prep Date:		Analysis Date:	2/27/2017	SeqNo:	1284759	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.3	0.087	3.480	0	95.8	61.5	138	1.60	20	
Toluene	3.4	0.17	3.480	0.01914	98.1	71.4	127	1.80	20	
Ethylbenzene	3.5	0.17	3.480	0.02992	101	70.9	132	1.96	20	
Xylenes, Total	11	0.35	10.44	0	105	76.2	123	1.20	20	
Surr: 4-Bromofluorobenzene	3.9		3.480		112	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B46

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30385		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30385		RunNo: 41013					
Prep Date:	2/24/2017		Analysis Date: 2/27/2017		SeqNo: 1284760		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		89.0	80	120			

Sample ID	LCS-30385		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30385		RunNo: 41013					
Prep Date:	2/24/2017		Analysis Date: 2/27/2017		SeqNo: 1284761		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.84		1.000		84.4	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702B46**

RcptNo: **1**

Received by/date:

*[Signature]*

02/25/17

Logged By: **Lindsay Mangin**

2/25/2017 8:35:00 AM

*[Signature]*

Completed By: **Lindsay Mangin**

2/27/2017 7:58:46 AM

*[Signature]*

Reviewed By:

EO

02/27/17

### 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	1.7	Good	Yes			





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

February 27, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702A90

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 2/24/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-71

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:10:00 PM

**Lab ID:** 1702A90-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 10:54:03 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	57	9.2		mg/Kg	1	2/24/2017 9:50:15 AM	30376
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/24/2017 9:50:15 AM	30376
Surr: DNOP	108	70-130		%Rec	1	2/24/2017 9:50:15 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/24/2017 10:01:53 AM	G40982
Surr: BFB	121	54-150		%Rec	5	2/24/2017 10:01:53 AM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	2/24/2017 10:01:53 AM	B40982
Toluene	ND	0.17		mg/Kg	5	2/24/2017 10:01:53 AM	B40982
Ethylbenzene	ND	0.17		mg/Kg	5	2/24/2017 10:01:53 AM	B40982
Xylenes, Total	ND	0.34		mg/Kg	5	2/24/2017 10:01:53 AM	B40982
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	5	2/24/2017 10:01:53 AM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-72

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:12:00 PM

**Lab ID:** 1702A90-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 11:06:27 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	55	9.8		mg/Kg	1	2/24/2017 10:11:51 AM	30376
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2017 10:11:51 AM	30376
Surr: DNOP	108	70-130		%Rec	1	2/24/2017 10:11:51 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/24/2017 10:28:15 AM	G40982
Surr: BFB	116	54-150		%Rec	5	2/24/2017 10:28:15 AM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	2/24/2017 10:28:15 AM	B40982
Toluene	ND	0.18		mg/Kg	5	2/24/2017 10:28:15 AM	B40982
Ethylbenzene	ND	0.18		mg/Kg	5	2/24/2017 10:28:15 AM	B40982
Xylenes, Total	ND	0.36		mg/Kg	5	2/24/2017 10:28:15 AM	B40982
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	5	2/24/2017 10:28:15 AM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-73

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:15:00 PM

**Lab ID:** 1702A90-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 11:18:52 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	47	10		mg/Kg	1	2/24/2017 10:33:23 AM	30376
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/24/2017 10:33:23 AM	30376
Surr: DNOP	106	70-130		%Rec	1	2/24/2017 10:33:23 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/24/2017 10:54:43 AM	G40982
Surr: BFB	110	54-150		%Rec	5	2/24/2017 10:54:43 AM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	2/24/2017 10:54:43 AM	B40982
Toluene	ND	0.18		mg/Kg	5	2/24/2017 10:54:43 AM	B40982
Ethylbenzene	ND	0.18		mg/Kg	5	2/24/2017 10:54:43 AM	B40982
Xylenes, Total	ND	0.35		mg/Kg	5	2/24/2017 10:54:43 AM	B40982
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	5	2/24/2017 10:54:43 AM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-74

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:17:00 PM

**Lab ID:** 1702A90-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 11:31:17 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	60	9.7		mg/Kg	1	2/24/2017 10:55:17 AM	30376
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/24/2017 10:55:17 AM	30376
Surr: DNOP	108	70-130		%Rec	1	2/24/2017 10:55:17 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/24/2017 11:21:11 AM	G40982
Surr: BFB	114	54-150		%Rec	5	2/24/2017 11:21:11 AM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	2/24/2017 11:21:11 AM	B40982
Toluene	ND	0.18		mg/Kg	5	2/24/2017 11:21:11 AM	B40982
Ethylbenzene	ND	0.18		mg/Kg	5	2/24/2017 11:21:11 AM	B40982
Xylenes, Total	ND	0.36		mg/Kg	5	2/24/2017 11:21:11 AM	B40982
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	2/24/2017 11:21:11 AM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-75

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:18:00 PM

**Lab ID:** 1702A90-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 11:43:42 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	57	10		mg/Kg	1	2/24/2017 11:16:49 AM	30376
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/24/2017 11:16:49 AM	30376
Surr: DNOP	109	70-130		%Rec	1	2/24/2017 11:16:49 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/24/2017 11:47:20 AM	G40982
Surr: BFB	116	54-150		%Rec	5	2/24/2017 11:47:20 AM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	2/24/2017 11:47:20 AM	B40982
Toluene	ND	0.17		mg/Kg	5	2/24/2017 11:47:20 AM	B40982
Ethylbenzene	ND	0.17		mg/Kg	5	2/24/2017 11:47:20 AM	B40982
Xylenes, Total	ND	0.35		mg/Kg	5	2/24/2017 11:47:20 AM	B40982
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	2/24/2017 11:47:20 AM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-76

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:19:00 PM

**Lab ID:** 1702A90-006

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 11:56:07 AM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	51	9.3		mg/Kg	1	2/24/2017 11:38:33 AM	30376
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/24/2017 11:38:33 AM	30376
Surr: DNOP	108	70-130		%Rec	1	2/24/2017 11:38:33 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/24/2017 12:13:28 PM	G40982
Surr: BFB	115	54-150		%Rec	5	2/24/2017 12:13:28 PM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	2/24/2017 12:13:28 PM	B40982
Toluene	ND	0.17		mg/Kg	5	2/24/2017 12:13:28 PM	B40982
Ethylbenzene	ND	0.17		mg/Kg	5	2/24/2017 12:13:28 PM	B40982
Xylenes, Total	ND	0.35		mg/Kg	5	2/24/2017 12:13:28 PM	B40982
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	2/24/2017 12:13:28 PM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-77

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:21:00 PM

**Lab ID:** 1702A90-007

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 12:33:21 PM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	9.3		mg/Kg	1	2/24/2017 12:00:10 PM	30376
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/24/2017 12:00:10 PM	30376
Surr: DNOP	109	70-130		%Rec	1	2/24/2017 12:00:10 PM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/24/2017 12:39:37 PM	G40982
Surr: BFB	116	54-150		%Rec	5	2/24/2017 12:39:37 PM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	2/24/2017 12:39:37 PM	B40982
Toluene	ND	0.18		mg/Kg	5	2/24/2017 12:39:37 PM	B40982
Ethylbenzene	ND	0.18		mg/Kg	5	2/24/2017 12:39:37 PM	B40982
Xylenes, Total	ND	0.36		mg/Kg	5	2/24/2017 12:39:37 PM	B40982
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	2/24/2017 12:39:37 PM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-78

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:24:00 PM

**Lab ID:** 1702A90-008

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 12:45:46 PM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	50	9.9		mg/Kg	1	2/24/2017 11:51:13 AM	30376
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/24/2017 11:51:13 AM	30376
Surr: DNOP	102	70-130		%Rec	1	2/24/2017 11:51:13 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	2/24/2017 1:05:51 PM	G40982
Surr: BFB	109	54-150		%Rec	5	2/24/2017 1:05:51 PM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	2/24/2017 1:05:51 PM	B40982
Toluene	ND	0.17		mg/Kg	5	2/24/2017 1:05:51 PM	B40982
Ethylbenzene	ND	0.17		mg/Kg	5	2/24/2017 1:05:51 PM	B40982
Xylenes, Total	ND	0.34		mg/Kg	5	2/24/2017 1:05:51 PM	B40982
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	2/24/2017 1:05:51 PM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702A90**

Date Reported: **2/27/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-79

**Project:** Florance GC J 16A

**Collection Date:** 2/23/2017 1:26:00 PM

**Lab ID:** 1702A90-009

**Matrix:** MEOH (SOIL)

**Received Date:** 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/24/2017 12:58:10 PM	30388
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	83	9.8		mg/Kg	1	2/24/2017 10:29:10 AM	30376
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2017 10:29:10 AM	30376
Surr: DNOP	103	70-130		%Rec	1	2/24/2017 10:29:10 AM	30376
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	2/24/2017 1:32:06 PM	G40982
Surr: BFB	122	54-150		%Rec	5	2/24/2017 1:32:06 PM	G40982
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.089		mg/Kg	5	2/24/2017 1:32:06 PM	B40982
Toluene	ND	0.18		mg/Kg	5	2/24/2017 1:32:06 PM	B40982
Ethylbenzene	ND	0.18		mg/Kg	5	2/24/2017 1:32:06 PM	B40982
Xylenes, Total	ND	0.36		mg/Kg	5	2/24/2017 1:32:06 PM	B40982
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	5	2/24/2017 1:32:06 PM	B40982

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A90

27-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30388		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30388		RunNo:	40976				
Prep Date:	2/24/2017		Analysis Date:	2/24/2017		SeqNo:	1283735		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30388		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30388		RunNo: 40976					
Prep Date:	2/24/2017		Analysis Date: 2/24/2017		SeqNo: 1283736		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A90

27-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30376		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30376		RunNo: 40959					
Prep Date:	2/24/2017		Analysis Date: 2/24/2017		SeqNo: 1283317		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	96.3	63.8	116			
Surr: DNOP	4.9		5.000		97.6	70	130			

Sample ID	MB-30376	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30376			RunNo: 40959					
Prep Date:	2/24/2017	Analysis Date: 2/24/2017			SeqNo: 1283318		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A90

27-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283841	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283842	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	76.4	125			
Surr: BFB	1200		1000		125	54	150			

Sample ID	1702A90-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-71	Batch ID:	G40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283843	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	97	17	85.79	0	114	61.3	150			
Surr: BFB	4200		3432		122	54	150			

Sample ID	1702A90-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-71	Batch ID:	G40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283844	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	110	17	85.79	0	129	61.3	150	12.6	20	
Surr: BFB	4500		3432		132	54	150	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702A90

27-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283851	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283852	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.0	75.2	115			
Toluene	0.98	0.050	1.000	0	98.2	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	100	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	103	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID	1702A90-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-72	Batch ID:	B40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283853	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.090	3.584	0	97.3	61.5	138			
Toluene	3.6	0.18	3.584	0.02007	99.4	71.4	127			
Ethylbenzene	3.7	0.18	3.584	0.02939	102	70.9	132			
Xylenes, Total	11	0.36	10.75	0.06451	105	76.2	123			
Surr: 4-Bromofluorobenzene	3.8		3.584		105	80	120			

Sample ID	1702A90-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-72	Batch ID:	B40982	RunNo:	40982					
Prep Date:		Analysis Date:	2/24/2017	SeqNo:	1283855	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.5	0.090	3.584	0	96.4	61.5	138	0.919	20	
Toluene	3.5	0.18	3.584	0.02007	97.0	71.4	127	2.44	20	
Ethylbenzene	3.5	0.18	3.584	0.02939	98.2	70.9	132	3.47	20	
Xylenes, Total	11	0.36	10.75	0.06451	102	76.2	123	3.11	20	
Surr: 4-Bromofluorobenzene	3.7		3.584		103	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702A90**

RcptNo: **1**

Received by/date:

*Ag*

*02/24/17*

Logged By:

**Ashley Gallegos**

**2/24/2017 8:08:00 AM**

*Ag*

Completed By:

**Ashley Gallegos**

**2/24/2017 8:17:50 AM**

*Ag*

Reviewed By:

*aj*

*02/24/17*

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax
Regarding:					<input type="checkbox"/> In Person		
Client Instructions:							

17. Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			





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

March 01, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1702B89

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/28/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B89**

Date Reported: **3/1/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-87

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 12:57:00 PM

**Lab ID:** 1702B89-001

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 12:41:58 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	24	10		mg/Kg	1	2/28/2017 10:12:17 AM	30431
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/28/2017 10:12:17 AM	30431
Surr: DNOP	98.8	70-130		%Rec	1	2/28/2017 10:12:17 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/28/2017 1:44:38 PM	G41049
Surr: BFB	126	54-150		%Rec	1	2/28/2017 1:44:38 PM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	2/28/2017 1:44:38 PM	B41049
Toluene	ND	0.031		mg/Kg	1	2/28/2017 1:44:38 PM	B41049
Ethylbenzene	ND	0.031		mg/Kg	1	2/28/2017 1:44:38 PM	B41049
Xylenes, Total	ND	0.062		mg/Kg	1	2/28/2017 1:44:38 PM	B41049
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	1	2/28/2017 1:44:38 PM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B89**

Date Reported: **3/1/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-88

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:00:00 PM

**Lab ID:** 1702B89-002

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 12:54:22 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	28	9.5		mg/Kg	1	2/28/2017 10:36:48 AM	30431
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/28/2017 10:36:48 AM	30431
Surr: DNOP	99.2	70-130		%Rec	1	2/28/2017 10:36:48 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	2/28/2017 2:10:54 PM	G41049
Surr: BFB	120	54-150		%Rec	1	2/28/2017 2:10:54 PM	G41049
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/28/2017 2:10:54 PM	B41049
Toluene	ND	0.034		mg/Kg	1	2/28/2017 2:10:54 PM	B41049
Ethylbenzene	ND	0.034		mg/Kg	1	2/28/2017 2:10:54 PM	B41049
Xylenes, Total	ND	0.067		mg/Kg	1	2/28/2017 2:10:54 PM	B41049
Surr: 4-Bromofluorobenzene	78.6	66.6-132		%Rec	1	2/28/2017 2:10:54 PM	B41049

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B89**

Date Reported: **3/1/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-89

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:03:00 PM

**Lab ID:** 1702B89-003

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 1:06:46 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	2/28/2017 11:25:40 AM	30431
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/28/2017 11:25:40 AM	30431
Surr: DNOP	98.0	70-130		%Rec	1	2/28/2017 11:25:40 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/28/2017 11:11:32 AM	G41048
Surr: BFB	118	54-150		%Rec	1	2/28/2017 11:11:32 AM	G41048
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	2/28/2017 11:11:32 AM	B41048
Toluene	ND	0.037		mg/Kg	1	2/28/2017 11:11:32 AM	B41048
Ethylbenzene	ND	0.037		mg/Kg	1	2/28/2017 11:11:32 AM	B41048
Xylenes, Total	ND	0.075		mg/Kg	1	2/28/2017 11:11:32 AM	B41048
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	2/28/2017 11:11:32 AM	B41048

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1702B89**

Date Reported: **3/1/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-90

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:06:00 PM

**Lab ID:** 1702B89-004

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 1:19:11 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	30	9.5		mg/Kg	1	2/28/2017 11:50:07 AM	30431
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/28/2017 11:50:07 AM	30431
Surr: DNOP	100	70-130		%Rec	1	2/28/2017 11:50:07 AM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.2	3.3		mg/Kg	1	2/28/2017 11:35:01 AM	G41048
Surr: BFB	135	54-150		%Rec	1	2/28/2017 11:35:01 AM	G41048
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/28/2017 11:35:01 AM	B41048
Toluene	ND	0.033		mg/Kg	1	2/28/2017 11:35:01 AM	B41048
Ethylbenzene	ND	0.033		mg/Kg	1	2/28/2017 11:35:01 AM	B41048
Xylenes, Total	ND	0.066		mg/Kg	1	2/28/2017 11:35:01 AM	B41048
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	2/28/2017 11:35:01 AM	B41048

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702B89

Date Reported: 3/1/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-91

**Project:** Florance GC J 16A

**Collection Date:** 2/27/2017 1:09:00 PM

**Lab ID:** 1702B89-005

**Matrix:** MEOH (SOIL)

**Received Date:** 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	2/28/2017 1:31:35 PM	30447
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.7		mg/Kg	1	2/28/2017 12:14:38 PM	30431
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/28/2017 12:14:38 PM	30431
Surr: DNOP	99.6	70-130		%Rec	1	2/28/2017 12:14:38 PM	30431
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	3.9	3.5		mg/Kg	1	2/28/2017 11:58:38 AM	G41048
Surr: BFB	133	54-150		%Rec	1	2/28/2017 11:58:38 AM	G41048
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	2/28/2017 11:58:38 AM	B41048
Toluene	ND	0.035		mg/Kg	1	2/28/2017 11:58:38 AM	B41048
Ethylbenzene	ND	0.035		mg/Kg	1	2/28/2017 11:58:38 AM	B41048
Xylenes, Total	ND	0.069		mg/Kg	1	2/28/2017 11:58:38 AM	B41048
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	2/28/2017 11:58:38 AM	B41048

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B89

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30447		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30447		RunNo:	41047				
Prep Date:	2/28/2017		Analysis Date:	2/28/2017		SeqNo:	1286758		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30447		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30447		RunNo: 41047					
Prep Date:	2/28/2017		Analysis Date: 2/28/2017		SeqNo: 1286759		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B89

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30431	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30431			RunNo: 41032					
Prep Date:	2/28/2017	Analysis Date: 2/28/2017			SeqNo: 1285370		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.8	70	130			

Sample ID	LCS-30399			SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	30399		RunNo:	41033			
Prep Date:	2/27/2017			Analysis Date:	2/28/2017		SeqNo:	1285372		Units:	%Rec
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.000		93.9	70	130				

Sample ID	MB-30399		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30399		RunNo: 41033					
Prep Date:	2/27/2017		Analysis Date: 2/28/2017		SeqNo: 1285373		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-30431		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30431		RunNo: 41032					
Prep Date:	2/28/2017		Analysis Date: 2/28/2017		SeqNo: 1285512		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	90.6	63.8	116			
Surr: DNOP	4.4		5.000		88.5	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B89

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286082	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	960		1000		95.8	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286083	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	76.4	125			
Surr: BFB	1200		1000		116	54	150			

Sample ID	MB-30408	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286086	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	54	150			

Sample ID	LCS-30408	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286087	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	54	150			

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286126	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	880		1000		87.6	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286127	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.8	76.4	125			
Surr: BFB	940		1000		94.3	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B89

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286104	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41049	RunNo:	41049					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286105	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.3	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	103	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	107	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

Sample ID	MB-30408	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286108	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.0	66.6	132			

Sample ID	LCS-30408	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	30408	RunNo:	41049					
Prep Date:	2/27/2017	Analysis Date:	2/28/2017	SeqNo:	1286109	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.1	66.6	132			

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286140	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B89

01-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286140	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286141	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.7	75.2	115			
Toluene	0.93	0.050	1.000	0	93.1	80.7	112			
Ethylbenzene	0.95	0.050	1.000	0	94.7	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	95.3	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	66.6	132			

Sample ID	1702B89-003AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-89	Batch ID:	B41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286142	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7479	0	93.1	61.5	138			
Toluene	0.70	0.037	0.7479	0.01183	92.2	71.4	127			
Ethylbenzene	0.72	0.037	0.7479	0.01248	95.0	70.9	132			
Xylenes, Total	2.2	0.075	2.244	0.03983	95.2	76.2	123			
Surr: 4-Bromofluorobenzene	0.80		0.7479		107	66.6	132			

Sample ID	1702B89-003AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-89	Batch ID:	B41048	RunNo:	41048					
Prep Date:		Analysis Date:	2/28/2017	SeqNo:	1286143	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.019	0.7479	0	91.2	61.5	138	1.99	20	
Toluene	0.71	0.037	0.7479	0.01183	92.9	71.4	127	0.680	20	
Ethylbenzene	0.72	0.037	0.7479	0.01248	95.1	70.9	132	0.133	20	
Xylenes, Total	2.2	0.075	2.244	0.03983	95.7	76.2	123	0.470	20	
Surr: 4-Bromofluorobenzene	0.82		0.7479		110	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified




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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1702B89

RcptNo: 1

Received by/date:		02/28/17
Logged By:	Lindsay Mangin	2/28/2017 7:30:00 AM
Completed By:	Lindsay Mangin	2/28/2017 8:18:03 AM
Reviewed By:	TO	02/28/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.9	Good	Yes			







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

March 09, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703350

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/8/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-92

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:09:00 PM

**Lab ID:** 1703350-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:01:38 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	31	10		mg/Kg	1	3/8/2017 9:46:18 AM	30576
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/8/2017 9:46:18 AM	30576
Surr: DNOP	108	70-130		%Rec	1	3/8/2017 9:46:18 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/8/2017 10:02:21 AM	G41228
Surr: BFB	133	54-150		%Rec	1	3/8/2017 10:02:21 AM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/8/2017 10:02:21 AM	B41228
Toluene	ND	0.032		mg/Kg	1	3/8/2017 10:02:21 AM	B41228
Ethylbenzene	ND	0.032		mg/Kg	1	3/8/2017 10:02:21 AM	B41228
Xylenes, Total	ND	0.063		mg/Kg	1	3/8/2017 10:02:21 AM	B41228
Surr: 4-Bromofluorobenzene	89.5	66.6-132		%Rec	1	3/8/2017 10:02:21 AM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-93

Project: Florance GC J 16A

Collection Date: 3/7/2017 1:12:00 PM

Lab ID: 1703350-002

Matrix: MEOH (SOIL)

Received Date: 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:14:03 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	42	9.7		mg/Kg	1	3/8/2017 10:07:42 AM	30576
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/8/2017 10:07:42 AM	30576
Surr: DNOP	115	70-130		%Rec	1	3/8/2017 10:07:42 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	3/8/2017 10:28:36 AM	G41228
Surr: BFB	109	54-150		%Rec	1	3/8/2017 10:28:36 AM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 10:28:36 AM	B41228
Toluene	ND	0.033		mg/Kg	1	3/8/2017 10:28:36 AM	B41228
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 10:28:36 AM	B41228
Xylenes, Total	ND	0.067		mg/Kg	1	3/8/2017 10:28:36 AM	B41228
Surr: 4-Bromofluorobenzene	87.1	66.6-132		%Rec	1	3/8/2017 10:28:36 AM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703350**Date Reported: **3/9/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-94**Project:** Florance GC J 16A**Collection Date:** 3/7/2017 1:15:00 PM**Lab ID:** 1703350-003**Matrix:** MEOH (SOIL)**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:26:27 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	20	9.3		mg/Kg	1	3/8/2017 10:29:20 AM	30576
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/8/2017 10:29:20 AM	30576
Surr: DNOP	108	70-130		%Rec	1	3/8/2017 10:29:20 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	3/8/2017 10:55:02 AM	G41228
Surr: BFB	112	54-150		%Rec	1	3/8/2017 10:55:02 AM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/8/2017 10:55:02 AM	B41228
Toluene	ND	0.031		mg/Kg	1	3/8/2017 10:55:02 AM	B41228
Ethylbenzene	ND	0.031		mg/Kg	1	3/8/2017 10:55:02 AM	B41228
Xylenes, Total	ND	0.063		mg/Kg	1	3/8/2017 10:55:02 AM	B41228
Surr: 4-Bromofluorobenzene	85.2	66.6-132		%Rec	1	3/8/2017 10:55:02 AM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-95

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:18:00 PM

**Lab ID:** 1703350-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:38:52 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	34	9.7		mg/Kg	1	3/8/2017 10:50:47 AM	30576
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/8/2017 10:50:47 AM	30576
Surr: DNOP	108	70-130		%Rec	1	3/8/2017 10:50:47 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	3.5	3.3		mg/Kg	1	3/8/2017 11:21:28 AM	G41228
Surr: BFB	169	54-150	S	%Rec	1	3/8/2017 11:21:28 AM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/8/2017 11:21:28 AM	B41228
Toluene	ND	0.033		mg/Kg	1	3/8/2017 11:21:28 AM	B41228
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 11:21:28 AM	B41228
Xylenes, Total	ND	0.065		mg/Kg	1	3/8/2017 11:21:28 AM	B41228
Surr: 4-Bromofluorobenzene	84.1	66.6-132		%Rec	1	3/8/2017 11:21:28 AM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-96

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:21:00 PM

**Lab ID:** 1703350-005

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:51:16 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.6		mg/Kg	1	3/8/2017 11:12:24 AM	30576
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/8/2017 11:12:24 AM	30576
Surr: DNOP	109	70-130		%Rec	1	3/8/2017 11:12:24 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	3/8/2017 11:47:41 AM	G41228
Surr: BFB	153	54-150	S	%Rec	1	3/8/2017 11:47:41 AM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 11:47:41 AM	B41228
Toluene	ND	0.034		mg/Kg	1	3/8/2017 11:47:41 AM	B41228
Ethylbenzene	ND	0.034		mg/Kg	1	3/8/2017 11:47:41 AM	B41228
Xylenes, Total	ND	0.069		mg/Kg	1	3/8/2017 11:47:41 AM	B41228
Surr: 4-Bromofluorobenzene	83.8	66.6-132		%Rec	1	3/8/2017 11:47:41 AM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-97

Project: Florance GC J 16A

Collection Date: 3/7/2017 1:24:00 PM

Lab ID: 1703350-006

Matrix: MEOH (SOIL)

Received Date: 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 12:28:31 PM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	9.2		mg/Kg	1	3/8/2017 11:33:56 AM	30576
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/8/2017 11:33:56 AM	30576
Surr: DNOP	105	70-130		%Rec	1	3/8/2017 11:33:56 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	3/8/2017 12:14:00 PM	G41228
Surr: BFB	131	54-150		%Rec	1	3/8/2017 12:14:00 PM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 12:14:00 PM	B41228
Toluene	ND	0.033		mg/Kg	1	3/8/2017 12:14:00 PM	B41228
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 12:14:00 PM	B41228
Xylenes, Total	ND	0.067		mg/Kg	1	3/8/2017 12:14:00 PM	B41228
Surr: 4-Bromofluorobenzene	87.0	66.6-132		%Rec	1	3/8/2017 12:14:00 PM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-98

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:27:00 PM

**Lab ID:** 1703350-007

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 12:40:55 PM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.4		mg/Kg	1	3/8/2017 11:55:34 AM	30576
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/8/2017 11:55:34 AM	30576
Surr: DNOP	104	70-130		%Rec	1	3/8/2017 11:55:34 AM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/8/2017 12:40:07 PM	G41228
Surr: BFB	146	54-150		%Rec	1	3/8/2017 12:40:07 PM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/8/2017 12:40:07 PM	B41228
Toluene	ND	0.035		mg/Kg	1	3/8/2017 12:40:07 PM	B41228
Ethylbenzene	ND	0.035		mg/Kg	1	3/8/2017 12:40:07 PM	B41228
Xylenes, Total	ND	0.071		mg/Kg	1	3/8/2017 12:40:07 PM	B41228
Surr: 4-Bromofluorobenzene	90.2	66.6-132		%Rec	1	3/8/2017 12:40:07 PM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-99

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:30:00 PM

**Lab ID:** 1703350-008

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 12:53:20 PM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	33	10		mg/Kg	1	3/8/2017 12:17:14 PM	30576
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/8/2017 12:17:14 PM	30576
Surr: DNOP	103	70-130		%Rec	1	3/8/2017 12:17:14 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	3/8/2017 1:06:17 PM	G41228
Surr: BFB	117	54-150		%Rec	1	3/8/2017 1:06:17 PM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/8/2017 1:06:17 PM	B41228
Toluene	ND	0.033		mg/Kg	1	3/8/2017 1:06:17 PM	B41228
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 1:06:17 PM	B41228
Xylenes, Total	ND	0.066		mg/Kg	1	3/8/2017 1:06:17 PM	B41228
Surr: 4-Bromofluorobenzene	80.2	66.6-132		%Rec	1	3/8/2017 1:06:17 PM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-100

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:33:00 PM

**Lab ID:** 1703350-009

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 1:05:44 PM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	36	10		mg/Kg	1	3/8/2017 12:38:56 PM	30576
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/8/2017 12:38:56 PM	30576
Surr: DNOP	105	70-130		%Rec	1	3/8/2017 12:38:56 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	3/8/2017 1:32:23 PM	G41228
Surr: BFB	140	54-150		%Rec	1	3/8/2017 1:32:23 PM	G41228
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 1:32:23 PM	B41228
Toluene	ND	0.033		mg/Kg	1	3/8/2017 1:32:23 PM	B41228
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 1:32:23 PM	B41228
Xylenes, Total	ND	0.067		mg/Kg	1	3/8/2017 1:32:23 PM	B41228
Surr: 4-Bromofluorobenzene	80.4	66.6-132		%Rec	1	3/8/2017 1:32:23 PM	B41228

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-101

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:36:00 PM

**Lab ID:** 1703350-010

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:13:45 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	14	9.6		mg/Kg	1	3/8/2017 1:00:54 PM	30576
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/8/2017 1:00:54 PM	30576
Surr: DNOP	105	70-130		%Rec	1	3/8/2017 1:00:54 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.3	3.4		mg/Kg	1	3/8/2017 12:18:26 PM	G41229
Surr: BFB	140	54-150		%Rec	1	3/8/2017 12:18:26 PM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 12:18:26 PM	B41229
Toluene	ND	0.034		mg/Kg	1	3/8/2017 12:18:26 PM	B41229
Ethylbenzene	ND	0.034		mg/Kg	1	3/8/2017 12:18:26 PM	B41229
Xylenes, Total	ND	0.068		mg/Kg	1	3/8/2017 12:18:26 PM	B41229
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	3/8/2017 12:18:26 PM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-102

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:39:00 PM

**Lab ID:** 1703350-011

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:26:10 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	41	9.7		mg/Kg	1	3/8/2017 1:22:46 PM	30576
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/8/2017 1:22:46 PM	30576
Surr: DNOP	105	70-130		%Rec	1	3/8/2017 1:22:46 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/8/2017 12:41:49 PM	G41229
Surr: BFB	135	54-150		%Rec	1	3/8/2017 12:41:49 PM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/8/2017 12:41:49 PM	B41229
Toluene	ND	0.035		mg/Kg	1	3/8/2017 12:41:49 PM	B41229
Ethylbenzene	ND	0.035		mg/Kg	1	3/8/2017 12:41:49 PM	B41229
Xylenes, Total	ND	0.071		mg/Kg	1	3/8/2017 12:41:49 PM	B41229
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	3/8/2017 12:41:49 PM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-103

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:42:00 PM

**Lab ID:** 1703350-012

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:38:35 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	19	9.4		mg/Kg	1	3/8/2017 1:44:33 PM	30576
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/8/2017 1:44:33 PM	30576
Surr: DNOP	105	70-130		%Rec	1	3/8/2017 1:44:33 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.9	3.3		mg/Kg	1	3/8/2017 1:05:11 PM	G41229
Surr: BFB	146	54-150		%Rec	1	3/8/2017 1:05:11 PM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/8/2017 1:05:11 PM	B41229
Toluene	ND	0.033		mg/Kg	1	3/8/2017 1:05:11 PM	B41229
Ethylbenzene	ND	0.033		mg/Kg	1	3/8/2017 1:05:11 PM	B41229
Xylenes, Total	ND	0.067		mg/Kg	1	3/8/2017 1:05:11 PM	B41229
Surr: 4-Bromofluorobenzene	121	66.6-132		%Rec	1	3/8/2017 1:05:11 PM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703350

Date Reported: 3/9/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-104

**Project:** Florance GC J 16A

**Collection Date:** 3/7/2017 1:45:00 PM

**Lab ID:** 1703350-013

**Matrix:** MEOH (SOIL)

**Received Date:** 3/8/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/8/2017 11:51:00 AM	30589
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	10		mg/Kg	1	3/8/2017 2:06:29 PM	30576
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/8/2017 2:06:29 PM	30576
Surr: DNOP	106	70-130		%Rec	1	3/8/2017 2:06:29 PM	30576
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	3.5	3.5		mg/Kg	1	3/8/2017 1:28:33 PM	G41229
Surr: BFB	135	54-150		%Rec	1	3/8/2017 1:28:33 PM	G41229
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/8/2017 1:28:33 PM	B41229
Toluene	ND	0.035		mg/Kg	1	3/8/2017 1:28:33 PM	B41229
Ethylbenzene	ND	0.035		mg/Kg	1	3/8/2017 1:28:33 PM	B41229
Xylenes, Total	ND	0.070		mg/Kg	1	3/8/2017 1:28:33 PM	B41229
Surr: 4-Bromofluorobenzene	121	66.6-132		%Rec	1	3/8/2017 1:28:33 PM	B41229

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30589		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30589		RunNo: 41226					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292439		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30589		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30589		RunNo: 41226					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292440		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

Sample ID	MB-30589		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30589		RunNo:	41227				
Prep Date:	3/8/2017		Analysis Date:	3/8/2017		SeqNo:	1292528		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30589		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30589		RunNo: 41227					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1292529		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30576		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30576		RunNo: 41217					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1291504		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.0	63.8	116			
Surr: DNOP	4.7		5.000		94.0	70	130			

Sample ID	MB-30576		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30576		RunNo: 41217					
Prep Date:	3/8/2017		Analysis Date: 3/8/2017		SeqNo: 1291505		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41228	RunNo:	41228					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292188	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	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41228	RunNo:	41228					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292189	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	76.4	125			
Surr: BFB	1100		1000		111	54	150			

Sample ID	1703350-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-92	Batch ID:	G41228	RunNo:	41228					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292190	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	3.2	15.87	1.809	92.4	61.3	150			
Surr: BFB	860		634.9		135	54	150			

Sample ID	1703350-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-92	Batch ID:	G41228	RunNo:	41228					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292191	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	3.2	15.87	1.809	123	61.3	150	25.7	20	R
Surr: BFB	840		634.9		132	54	150	0	0	

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292216	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	860		1000		85.5	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292217	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292217	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	94.1	76.4	125			
Surr: BFB	940		1000		93.5	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B41228</b>		RunNo: <b>41228</b>							
Prep Date:	Analysis Date: <b>3/8/2017</b>		SeqNo: <b>1292204</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B41228</b>		RunNo: <b>41228</b>							
Prep Date:	Analysis Date: <b>3/8/2017</b>		SeqNo: <b>1292205</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	75.2	115			
Toluene	0.98	0.050	1.000	0	98.4	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	101	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	105	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	66.6	132			

Sample ID <b>1703350-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-93</b>	Batch ID: <b>B41228</b>		RunNo: <b>41228</b>							
Prep Date:	Analysis Date: <b>3/8/2017</b>		SeqNo: <b>1292207</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.017	0.6676	0	94.5	61.5	138			
Toluene	0.64	0.033	0.6676	0.003805	96.0	71.4	127			
Ethylbenzene	0.65	0.033	0.6676	0.005541	96.7	70.9	132			
Xylenes, Total	2.0	0.067	2.003	0.01349	96.9	76.2	123			
Surr: 4-Bromofluorobenzene	0.49		0.6676		73.5	66.6	132			

Sample ID <b>1703350-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-93</b>	Batch ID: <b>B41228</b>		RunNo: <b>41228</b>							
Prep Date:	Analysis Date: <b>3/8/2017</b>		SeqNo: <b>1292208</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.017	0.6676	0	105	61.5	138	10.5	20	
Toluene	0.72	0.033	0.6676	0.003805	107	71.4	127	11.0	20	
Ethylbenzene	0.70	0.033	0.6676	0.005541	104	70.9	132	7.13	20	
Xylenes, Total	2.1	0.067	2.003	0.01349	106	76.2	123	8.64	20	
Surr: 4-Bromofluorobenzene	0.45		0.6676		67.6	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703350

09-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292222	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41229	RunNo:	41229					
Prep Date:		Analysis Date:	3/8/2017	SeqNo:	1292223	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.2	115			
Toluene	1.1	0.050	1.000	0	105	80.7	112			
Ethylbenzene	1.1	0.050	1.000	0	107	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	108	79.2	115			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1703350

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>03/08/17</i>
Logged By:	<b>Lindsay Mangin</b>	3/8/2017 7:35:00 AM <i>[Signature]</i>
Completed By:	<b>Lindsay Mangin</b>	3/8/2017 7:53:17 AM <i>[Signature]</i>
Reviewed By:	<i>AS</i>	<i>03/08/17</i>

### Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

### Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- 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)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

- Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

# Chain-of-Custody Record

Client: BP America  
Blacks Engineering INC.  
Mailing Address: \_\_\_\_\_  
Phone #: (505) 320-1183  
email or Fax#: \_\_\_\_\_  
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)  
Accreditation: ☒ NELAP ☐ Other \_\_\_\_\_  
☐ EDD (Type) \_\_\_\_\_

Turn-Around Time: SAME DAY  
☐ Standard ☒ Rush  
Project Name: FLORANCE GC J 16A  
Project #: \_\_\_\_\_  
TREATED SOIL PILES  
Project Manager: J. Blabg  
Sampler: J. Blabg  
On Ice: ☒ Yes ☐ No  
Sample Temperature: 1.6

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/2/17	1309	Soil	TSP-92	402 x 1	cool	1703350
	1312		TSP-93			-001
	1315		TSP-94			-007
	1318		TSP-95			-003
	1321		TSP-96			-004
	1324		TSP-97			-005
	1327		TSP-98			-006
	1330		TSP-99			-007
	1333		TSP-100			-008
	1336		TSP-101			-009
	1339		TSP-102			-010
	1342		TSP-103			-011
						-012

Relinquished by: Jeff Blabg Date: 3/2/17 Time: 1649  
Relinquished by: Mike Wark Date: 3/2/17 Time: 1907



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

Analysis Request									
BTEX + MTBE + THMs (8021)	X	BTEX + MTBE + TPH (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)		EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)		RCRA 8 Metals		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCB's		8260B (VOA)	
8270 (Semi-VOA)		Chlorides	X						
Air Bubbles (Y or N)									

Remarks: PAGE 1 OF 2  
But BP Contact: Steve Muck  
VID: VHX00542  
WBS Element: L1-00162-E  
PERM667169







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

March 10, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703438

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/9/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703438

Date Reported: 3/10/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-105

**Project:** Florance GC J 16A

**Collection Date:** 3/8/2017 1:15:00 PM

**Lab ID:** 1703438-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/9/2017 1:13:17 PM	30612
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	16	3.4		mg/Kg	1	3/9/2017 11:06:59 AM	G41263
Surr: BFB	89.1	70-130		%Rec	1	3/9/2017 11:06:59 AM	G41263
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	19	9.6		mg/Kg	1	3/9/2017 9:51:21 AM	30606
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 9:51:21 AM	30606
Surr: DNOP	95.9	70-130		%Rec	1	3/9/2017 9:51:21 AM	30606
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	3/9/2017 11:06:59 AM	S41263
Toluene	ND	0.034		mg/Kg	1	3/9/2017 11:06:59 AM	S41263
Ethylbenzene	ND	0.034		mg/Kg	1	3/9/2017 11:06:59 AM	S41263
Xylenes, Total	ND	0.068		mg/Kg	1	3/9/2017 11:06:59 AM	S41263
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	3/9/2017 11:06:59 AM	S41263
Surr: 4-Bromofluorobenzene	89.8	70-130		%Rec	1	3/9/2017 11:06:59 AM	S41263
Surr: Dibromofluoromethane	107	70-130		%Rec	1	3/9/2017 11:06:59 AM	S41263
Surr: Toluene-d8	91.9	70-130		%Rec	1	3/9/2017 11:06:59 AM	S41263

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703438

Date Reported: 3/10/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-106

Project: Florance GC J 16A

Collection Date: 3/8/2017 1:19:00 PM

Lab ID: 1703438-002

Matrix: MEOH (SOIL)

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/9/2017 1:25:42 PM	30612
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	7.8	3.3		mg/Kg	1	3/9/2017 11:36:08 AM	G41263
Surr: BFB	88.8	70-130		%Rec	1	3/9/2017 11:36:08 AM	G41263
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	27	9.8		mg/Kg	1	3/9/2017 10:15:53 AM	30606
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/9/2017 10:15:53 AM	30606
Surr: DNOP	94.3	70-130		%Rec	1	3/9/2017 10:15:53 AM	30606
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	3/9/2017 11:36:08 AM	S41263
Toluene	ND	0.033		mg/Kg	1	3/9/2017 11:36:08 AM	S41263
Ethylbenzene	ND	0.033		mg/Kg	1	3/9/2017 11:36:08 AM	S41263
Xylenes, Total	ND	0.067		mg/Kg	1	3/9/2017 11:36:08 AM	S41263
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	3/9/2017 11:36:08 AM	S41263
Surr: 4-Bromofluorobenzene	88.3	70-130		%Rec	1	3/9/2017 11:36:08 AM	S41263
Surr: Dibromofluoromethane	114	70-130		%Rec	1	3/9/2017 11:36:08 AM	S41263
Surr: Toluene-d8	91.7	70-130		%Rec	1	3/9/2017 11:36:08 AM	S41263

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703438

Date Reported: 3/10/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-107

**Project:** Florance GC J 16A

**Collection Date:** 3/8/2017 1:22:00 PM

**Lab ID:** 1703438-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/9/2017 1:38:07 PM	30612
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	9.7	3.3		mg/Kg	1	3/9/2017 12:04:51 PM	G41263
Surr: BFB	88.3	70-130		%Rec	1	3/9/2017 12:04:51 PM	G41263
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.4		mg/Kg	1	3/9/2017 10:40:17 AM	30606
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 10:40:17 AM	30606
Surr: DNOP	91.2	70-130		%Rec	1	3/9/2017 10:40:17 AM	30606
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	3/9/2017 12:04:51 PM	S41263
Toluene	ND	0.033		mg/Kg	1	3/9/2017 12:04:51 PM	S41263
Ethylbenzene	ND	0.033		mg/Kg	1	3/9/2017 12:04:51 PM	S41263
Xylenes, Total	ND	0.066		mg/Kg	1	3/9/2017 12:04:51 PM	S41263
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	3/9/2017 12:04:51 PM	S41263
Surr: 4-Bromofluorobenzene	84.4	70-130		%Rec	1	3/9/2017 12:04:51 PM	S41263
Surr: Dibromofluoromethane	105	70-130		%Rec	1	3/9/2017 12:04:51 PM	S41263
Surr: Toluene-d8	94.9	70-130		%Rec	1	3/9/2017 12:04:51 PM	S41263

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703438

Date Reported: 3/10/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-108

**Project:** Florance GC J 16A

**Collection Date:** 3/8/2017 1:25:00 PM

**Lab ID:** 1703438-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/9/2017 1:50:32 PM	30612
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	9.9	3.4		mg/Kg	1	3/9/2017 12:33:29 PM	G41263
Surr: BFB	93.1	70-130		%Rec	1	3/9/2017 12:33:29 PM	G41263
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	44	9.9		mg/Kg	1	3/9/2017 11:04:52 AM	30606
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 11:04:52 AM	30606
Surr: DNOP	91.4	70-130		%Rec	1	3/9/2017 11:04:52 AM	30606
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	3/9/2017 12:33:29 PM	S41263
Toluene	ND	0.034		mg/Kg	1	3/9/2017 12:33:29 PM	S41263
Ethylbenzene	ND	0.034		mg/Kg	1	3/9/2017 12:33:29 PM	S41263
Xylenes, Total	ND	0.067		mg/Kg	1	3/9/2017 12:33:29 PM	S41263
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	3/9/2017 12:33:29 PM	S41263
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	3/9/2017 12:33:29 PM	S41263
Surr: Dibromofluoromethane	106	70-130		%Rec	1	3/9/2017 12:33:29 PM	S41263
Surr: Toluene-d8	93.4	70-130		%Rec	1	3/9/2017 12:33:29 PM	S41263

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703438

Date Reported: 3/10/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-109

Project: Florance GC J 16A

Collection Date: 3/8/2017 1:28:00 PM

Lab ID: 1703438-005

Matrix: MEOH (SOIL)

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/9/2017 2:02:56 PM	30612
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	7.3	3.6		mg/Kg	1	3/9/2017 1:02:47 PM	G41263
Surr: BFB	88.6	70-130		%Rec	1	3/9/2017 1:02:47 PM	G41263
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	20	9.3		mg/Kg	1	3/9/2017 11:29:21 AM	30606
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 11:29:21 AM	30606
Surr: DNOP	91.8	70-130		%Rec	1	3/9/2017 11:29:21 AM	30606
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.018		mg/Kg	1	3/9/2017 1:02:47 PM	S41263
Toluene	ND	0.036		mg/Kg	1	3/9/2017 1:02:47 PM	S41263
Ethylbenzene	ND	0.036		mg/Kg	1	3/9/2017 1:02:47 PM	S41263
Xylenes, Total	ND	0.071		mg/Kg	1	3/9/2017 1:02:47 PM	S41263
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	3/9/2017 1:02:47 PM	S41263
Surr: 4-Bromofluorobenzene	85.9	70-130		%Rec	1	3/9/2017 1:02:47 PM	S41263
Surr: Dibromofluoromethane	101	70-130		%Rec	1	3/9/2017 1:02:47 PM	S41263
Surr: Toluene-d8	92.2	70-130		%Rec	1	3/9/2017 1:02:47 PM	S41263

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703438

10-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30612		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30612		RunNo:	41268				
Prep Date:	3/9/2017		Analysis Date:	3/9/2017		SeqNo:	1293993		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30612		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30612		RunNo: 41268					
Prep Date:	3/9/2017		Analysis Date: 3/9/2017		SeqNo: 1293994		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703438

10-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30606		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30606		RunNo: 41253					
Prep Date:	3/9/2017		Analysis Date: 3/9/2017		SeqNo: 1292385		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.3	63.8	116			
Surr: DNOP	4.3		5.000		86.2	70	130			

Sample ID	MB-30606	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30606			RunNo: 41253					
Prep Date:	3/9/2017	Analysis Date: 3/9/2017			SeqNo: 1292386		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.5	70	130			

Sample ID	1703438-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-105		Batch ID: 30606		RunNo: 41253					
Prep Date:	3/9/2017		Analysis Date: 3/9/2017		SeqNo: 1293007		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.3	46.55	18.91	97.6	51.6	130			
Surr: DNOP	4.0		4.655		85.6	70	130			

Sample ID	1703438-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-105		Batch ID: 30606		RunNo: 41253					
Prep Date:	3/9/2017		Analysis Date: 3/9/2017		SeqNo: 1293011		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	9.3	46.30	18.91	108	51.6	130	6.89	20	
Surr: DNOP	4.2		4.630		90.5	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703438

10-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>S41263</b>		RunNo: <b>41263</b>							
Prep Date:	Analysis Date: <b>3/9/2017</b>		SeqNo: <b>1293673</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.8	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>S41263</b>		RunNo: <b>41263</b>							
Prep Date:	Analysis Date: <b>3/9/2017</b>		SeqNo: <b>1293674</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	117	70	130			
Toluene	1.0	0.050	1.000	0	99.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.3	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.48		0.5000		97.0	70	130			

Sample ID <b>1703438-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>TSP-105</b>	Batch ID: <b>S41263</b>		RunNo: <b>41263</b>							
Prep Date:	Analysis Date: <b>3/9/2017</b>		SeqNo: <b>1293675</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.017	0.6826	0	120	61.9	146			
Toluene	0.70	0.034	0.6826	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.36		0.3413		105	70	130			
Surr: 4-Bromofluorobenzene	0.31		0.3413		90.7	70	130			
Surr: Dibromofluoromethane	0.37		0.3413		108	70	130			
Surr: Toluene-d8	0.33		0.3413		97.9	70	130			

Sample ID <b>1703438-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>TSP-105</b>	Batch ID: <b>S41263</b>		RunNo: <b>41263</b>							
Prep Date:	Analysis Date: <b>3/9/2017</b>		SeqNo: <b>1293676</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.017	0.6826	0	113	61.9	146	5.96	20	
Toluene	0.66	0.034	0.6826	0	96.0	70	130	7.02	20	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703438

10-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1703438-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-105	Batch ID:	S41263	RunNo:	41263					
Prep Date:		Analysis Date:	3/9/2017	SeqNo:	1293676	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.36		0.3413		106	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3413		90.7	70	130	0	0	
Surr: Dibromofluoromethane	0.36		0.3413		107	70	130	0	0	
Surr: Toluene-d8	0.33		0.3413		95.3	70	130	0	0	

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703438

10-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	G41263	RunNo:	41263					
Prep Date:		Analysis Date:	3/9/2017	SeqNo:	1293761	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	440		500.0		88.9	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41263	RunNo:	41263					
Prep Date:		Analysis Date:	3/9/2017	SeqNo:	1293762	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	92.8	70	130			
Surr: BFB	450		500.0		90.3	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

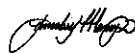
Work Order Number: **1703438**

RcptNo: **1**

Received by/date: AT 03/09/17

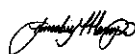
Logged By: **Lindsay Mangin**

3/9/2017 7:10:00 AM



Completed By: **Lindsay Mangin**

3/9/2017 8:11:14 AM



Reviewed By: AS
03/09/17

## 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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

UNIFORM TIME

Client: BP AMERICA SAME DAY

Project Name: FLORANCE GC J 16A

Mailing Address: \_\_\_\_\_

Phone #: (505) 320-1103

email or Fax#: \_\_\_\_\_

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

Accreditation ☐ NELAP ☐ Other \_\_\_\_\_

Sample Temperature: 0

On Ice: ☒ Yes ☐ No

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/8/17	13:15	Soil	TSP - 105	4 oz x 1	Cool	17034138
"	13:19	"	TSP - 106	"	"	-001
"	13:22	"	TSP - 107	"	"	-002
"	13:25	"	TSP - 108	"	"	-003
"	13:28	"	TSP - 109	"	"	-004

Relinquished by: Jeff Blagg Date: 3/8/17 Time: 1702

Received by: Chad Wat Date: 3/8/17 Time: 1702

Relinquished by: Chad Wat Date: 3/8/17 Time: 1952

Received by: Chad Wat Date: 3/8/17 Time: 0710



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (8021)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X	X									X	
X	X	X									X	
X	X	X									X	
X	X	X									X	
X	X	X									X	

Remarks: Bill BP CONTACT: STEVE NOSKAL

VID: VHXONEVRM

WBS ELEMENT: L1-0016P-E: FURNACE J 16A

NOTE: SAMPLES TREATED WITH H<sub>2</sub>O<sub>2</sub>

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 13, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703535

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/10/2017 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](http://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 qualifiers 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703535

Date Reported: 3/13/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-110

**Project:** Florance GC J 16A

**Collection Date:** 3/9/2017 1:34:00 PM

**Lab ID:** 1703535-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/10/2017 7:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/10/2017 10:30:29 AM	30632
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.1		mg/Kg	1	3/10/2017 11:09:22 AM	30626
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/10/2017 11:09:22 AM	30626
Surr: DNOP	105	70-130		%Rec	1	3/10/2017 11:09:22 AM	30626
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	13		mg/Kg	4	3/10/2017 10:27:42 AM	30613
Surr: BFB	97.6	54-150		%Rec	4	3/10/2017 10:27:42 AM	30613
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.065		mg/Kg	4	3/10/2017 10:27:42 AM	30613
Toluene	ND	0.13		mg/Kg	4	3/10/2017 10:27:42 AM	30613
Ethylbenzene	ND	0.13		mg/Kg	4	3/10/2017 10:27:42 AM	30613
Xylenes, Total	ND	0.26		mg/Kg	4	3/10/2017 10:27:42 AM	30613
Surr: 4-Bromofluorobenzene	96.4	66.6-132		%Rec	4	3/10/2017 10:27:42 AM	30613

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703535

13-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30632		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30632		RunNo:	41301				
Prep Date:	3/10/2017		Analysis Date:	3/10/2017		SeqNo:	1294615		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30632		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30632		RunNo: 41301					
Prep Date:	3/10/2017		Analysis Date: 3/10/2017		SeqNo: 1294616		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703535

13-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30608		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30608		RunNo: 41288					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1293867		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.8	70	130			

Sample ID	MB-30608		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30608		RunNo: 41288					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1293868		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		99.7	70	130			

Sample ID	MB-30626	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30626			RunNo: 41288					
Prep Date:	3/10/2017	Analysis Date: 3/10/2017			SeqNo: 1293876		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-30626		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30626		RunNo: 41288					
Prep Date:	3/10/2017		Analysis Date: 3/10/2017		SeqNo: 1294089		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	63.8	116			
Surr: DNOP	4.7		5.000		94.6	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703535

13-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30613		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30613		RunNo: 41306					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1294532		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		81.9	54	150			

Sample ID	LCS-30613		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30613		RunNo: 41306					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1294534		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	96.2	76.4	125			
Surr: BFB	990		1000		99.4	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703535

13-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30613		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30613		RunNo: 41306					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1294570		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	66.6	132			

Sample ID	LCS-30613		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30613		RunNo: 41306					
Prep Date:	3/9/2017		Analysis Date: 3/10/2017		SeqNo: 1294577		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.7	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.6	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.1	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1703535

RcptNo: 1

Received by/date:

*[Signature]*

03/10/17

Logged By: Lindsay Mangin

3/10/2017 7:08:00 AM

*[Signature]*

Completed By: Lindsay Mangin

3/10/2017 7:47:05 AM

*[Signature]*

Reviewed By:

*[Signature]*

03/10/17

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

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

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

<b>Chain-of-Custody Record</b>		Turn-Around Time: Stamp Day
Client: BP America	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush	
Mailing Address: Bleggs Engineering	Project Name: Farnwell GE J 16A	



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

Phone #: 505-320-1193	Project Manager: J. Burdick
email or Fax#:	
OW/OC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other	Sampler: J. Burdick On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type)	Sample Temperature: 1.3

## Analysis Request

[illegible][illegible]

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
2/24/17	1635	[Signature]	[Signature]	3/9/17	1635
3/17/17	1851	[Signature]	[Signature]	03/10/17	0708

Remarks: Bill BP Contact: Steve Mastal  
 UD: VHKDW EURLH  
 WSS: L1-0016D-E: FURNACE J 16A  
 H<sub>2</sub>O<sub>2</sub> in sample

if necessary samples submitted to Hell 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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 14, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703589

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/11/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703589

Date Reported: 3/14/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-111

Project: Florance GC J 16A

Collection Date: 3/10/2017 1:25:00 PM

Lab ID: 1703589-001

Matrix: MEOH (SOIL)

Received Date: 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 10:35:08 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	43	9.6		mg/Kg	1	3/13/2017 9:32:39 AM	30650
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/13/2017 9:32:39 AM	30650
Surr: DNOP	93.3	70-130		%Rec	1	3/13/2017 9:32:39 AM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.1	3.5		mg/Kg	1	3/13/2017 9:10:41 AM	30631
Surr: BFB	158	54-150	S	%Rec	1	3/13/2017 9:10:41 AM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	3/13/2017 9:10:41 AM	30631
Toluene	ND	0.035		mg/Kg	1	3/13/2017 9:10:41 AM	30631
Ethylbenzene	ND	0.035		mg/Kg	1	3/13/2017 9:10:41 AM	30631
Xylenes, Total	ND	0.070		mg/Kg	1	3/13/2017 9:10:41 AM	30631
Surr: 4-Bromofluorobenzene	82.5	66.6-132		%Rec	1	3/13/2017 9:10:41 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703589

Date Reported: 3/14/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-112

**Project:** Florance GC J 16A

**Collection Date:** 3/10/2017 1:28:00 PM

**Lab ID:** 1703589-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 10:47:33 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	44	10		mg/Kg	1	3/13/2017 9:56:58 AM	30650
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/13/2017 9:56:58 AM	30650
Surr: DNOP	91.1	70-130		%Rec	1	3/13/2017 9:56:58 AM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/13/2017 9:37:05 AM	30631
Surr: BFB	125	54-150		%Rec	5	3/13/2017 9:37:05 AM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	3/13/2017 9:37:05 AM	30631
Toluene	ND	0.17		mg/Kg	5	3/13/2017 9:37:05 AM	30631
Ethylbenzene	ND	0.17		mg/Kg	5	3/13/2017 9:37:05 AM	30631
Xylenes, Total	ND	0.33		mg/Kg	5	3/13/2017 9:37:05 AM	30631
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	5	3/13/2017 9:37:05 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703589

Date Reported: 3/14/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-113

**Project:** Florance GC J 16A

**Collection Date:** 3/10/2017 1:30:00 PM

**Lab ID:** 1703589-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 10:59:57 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	29	9.1		mg/Kg	1	3/13/2017 10:21:18 AM	30650
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/13/2017 10:21:18 AM	30650
Surr: DNOP	90.2	70-130		%Rec	1	3/13/2017 10:21:18 AM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/13/2017 10:03:26 AM	30631
Surr: BFB	116	54-150		%Rec	5	3/13/2017 10:03:26 AM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	5	3/13/2017 10:03:26 AM	30631
Toluene	ND	0.16		mg/Kg	5	3/13/2017 10:03:26 AM	30631
Ethylbenzene	ND	0.16		mg/Kg	5	3/13/2017 10:03:26 AM	30631
Xylenes, Total	ND	0.33		mg/Kg	5	3/13/2017 10:03:26 AM	30631
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	5	3/13/2017 10:03:26 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703589

Date Reported: 3/14/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-114

**Project:** Florance GC J 16A

**Collection Date:** 3/10/2017 1:34:00 PM

**Lab ID:** 1703589-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/13/2017 11:12:21 AM	30664
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	3/13/2017 10:45:47 AM	30650
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/13/2017 10:45:47 AM	30650
Surr: DNOP	91.1	70-130		%Rec	1	3/13/2017 10:45:47 AM	30650
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.8	3.3		mg/Kg	1	3/13/2017 10:29:51 AM	30631
Surr: BFB	175	54-150	S	%Rec	1	3/13/2017 10:29:51 AM	30631
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/13/2017 10:29:51 AM	30631
Toluene	ND	0.033		mg/Kg	1	3/13/2017 10:29:51 AM	30631
Ethylbenzene	ND	0.033		mg/Kg	1	3/13/2017 10:29:51 AM	30631
Xylenes, Total	ND	0.066		mg/Kg	1	3/13/2017 10:29:51 AM	30631
Surr: 4-Bromofluorobenzene	90.7	66.6-132		%Rec	1	3/13/2017 10:29:51 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703589

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30664		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30664		RunNo: 41329					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1296016		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30664		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30664		RunNo: 41329					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1296017		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703589

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30650		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30650		RunNo: 41323					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1294853		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	93.8	63.8	116			
Surr: DNOP	4.8		5.000		95.8	70	130			

Sample ID	MB-30650	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30650			RunNo: 41323					
Prep Date:	3/13/2017	Analysis Date: 3/13/2017			SeqNo: 1294854		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

Sample ID	1703589-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-111		Batch ID: 30650		RunNo: 41324					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1294968		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	98	9.8	48.88	43.12	112	51.6	130			
Surr: DNOP	4.5		4.888		93.0	70	130			

Sample ID	1703589-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-111		Batch ID: 30650		RunNo: 41324					
Prep Date:	3/13/2017		Analysis Date: 3/13/2017		SeqNo: 1294972		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	9.9	49.31	43.12	48.7	51.6	130	37.0	20	RS
Surr: DNOP	4.5		4.931		90.3	70	130	0	0	

Sample ID	LCS-30637		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30637		RunNo: 41324					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295865		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID	MB-30637		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30637		RunNo: 41324					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295866		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703589

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30637		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30637		RunNo: 41324					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295866		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.2	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703589

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295376		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	800		1000		79.9	54	150			

Sample ID	LCS-30631		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295377		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	105	76.4	125			
Surr: BFB	1000		1000		103	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703589

14-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295395		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	66.6	132			

Sample ID	LCS-30631		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295396		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703589**

RcptNo: **1**

Received by/date

Logged By: **Lindsay Mangin**

3/11/2017 8:00:00 AM

Completed By: **Lindsay Mangin**

3/11/2017 8:17:38 AM

Reviewed By:

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ?

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	2.9	Good	Yes			

# Chain-of-Custody Record

Client: BP America  
Bridge Engineering Inc.  
 Mailing Address: \_\_\_\_\_

Phone #: (505) 320-1183

email or Fax#: \_\_\_\_\_

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_

Turn-Around Time: \_\_\_\_\_

☐ Standard ☒ Rush

Project Name: \_\_\_\_\_

FLORANCE GC J 16A

Project #:

TREATED SOIL PILES

Project Manager:

J. Blagg

Sampler: J. Blagg

On loc: ☒ Yes ☐ No

Sample Temperature: 2.9

Date Time Matrix Sample Request ID

3/10/2017 1325 Soil TSP-111

" 1328 " TSP-112

" 1330 " TSP-113

" 1334 " TSP-114

Container Type and #

403 x 1

"

"

"

Preservative Type

cool

"

"

"

HEAL No.

1703589

-001

-002

-003

-004

Date: 3/10/2017 Time: 1531

Relinquished by: J. Blagg

Date: 3/10/17 Time: 1757

Relinquished by: Matthew Wale

Received by:

Matthew Wale

Date: 3/10/2017 Time: 1531

Date: 3/11/17 Time: 0800

Date

3/10/2017

Time

1531

Date

3/11/17

Time

0800

Remarks: Bill BP

Contact: Steve Markal

VIS: VHXONVURM

WBS: L1-100634 0016D-E: FURNCCCT16A

Analysis Request

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Chloride

Air Bubbles (Y or N)

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 16, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703655

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/14/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-115

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:30:00 PM

**Lab ID:** 1703655-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 11:48:31 AM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	160	9.5		mg/Kg	1	3/14/2017 9:57:00 AM	30672
Motor Oil Range Organics (MRO)	61	47		mg/Kg	1	3/14/2017 9:57:00 AM	30672
Surr: DNOP	109	70-130		%Rec	1	3/14/2017 9:57:00 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 8:59:42 AM	G41365
Surr: BFB	97.1	54-150		%Rec	5	3/14/2017 8:59:42 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	3/14/2017 8:59:42 AM	B41365
Toluene	ND	0.17		mg/Kg	5	3/14/2017 8:59:42 AM	B41365
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 8:59:42 AM	B41365
Xylenes, Total	ND	0.35		mg/Kg	5	3/14/2017 8:59:42 AM	B41365
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/14/2017 8:59:42 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-116

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:35:00 PM

**Lab ID:** 1703655-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:00:55 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	3/14/2017 10:18:50 AM	30672
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/14/2017 10:18:50 AM	30672
Surr: DNOP	108	70-130		%Rec	1	3/14/2017 10:18:50 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 9:23:13 AM	G41365
Surr: BFB	92.4	54-150		%Rec	5	3/14/2017 9:23:13 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.091		mg/Kg	5	3/14/2017 9:23:13 AM	B41365
Toluene	ND	0.18		mg/Kg	5	3/14/2017 9:23:13 AM	B41365
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 9:23:13 AM	B41365
Xylenes, Total	ND	0.36		mg/Kg	5	3/14/2017 9:23:13 AM	B41365
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/14/2017 9:23:13 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703655

Date Reported: 3/16/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-117

Project: Florance GC J 16A

Collection Date: 3/13/2017 1:38:00 PM

Lab ID: 1703655-003

Matrix: MEOH (SOIL)

Received Date: 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:13:20 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	51	10		mg/Kg	1	3/14/2017 10:40:31 AM	30672
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/14/2017 10:40:31 AM	30672
Surr: DNOP	108	70-130		%Rec	1	3/14/2017 10:40:31 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 9:46:40 AM	G41365
Surr: BFB	93.5	54-150		%Rec	5	3/14/2017 9:46:40 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	3/14/2017 9:46:40 AM	B41365
Toluene	ND	0.18		mg/Kg	5	3/14/2017 9:46:40 AM	B41365
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 9:46:40 AM	B41365
Xylenes, Total	ND	0.35		mg/Kg	5	3/14/2017 9:46:40 AM	B41365
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/14/2017 9:46:40 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-118

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:41:00 PM

**Lab ID:** 1703655-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:25:45 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	120	9.6		mg/Kg	1	3/14/2017 11:02:29 AM	30672
Motor Oil Range Organics (MRO)	49	48		mg/Kg	1	3/14/2017 11:02:29 AM	30672
Surr: DNOP	109	70-130		%Rec	1	3/14/2017 11:02:29 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 10:10:19 AM	G41365
Surr: BFB	96.9	54-150		%Rec	5	3/14/2017 10:10:19 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.089		mg/Kg	5	3/14/2017 10:10:19 AM	B41365
Toluene	ND	0.18		mg/Kg	5	3/14/2017 10:10:19 AM	B41365
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 10:10:19 AM	B41365
Xylenes, Total	ND	0.36		mg/Kg	5	3/14/2017 10:10:19 AM	B41365
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/14/2017 10:10:19 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703655

Date Reported: 3/16/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-119

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:43:00 PM

**Lab ID:** 1703655-005

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:38:09 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	68	9.7		mg/Kg	1	3/14/2017 11:24:31 AM	30672
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2017 11:24:31 AM	30672
Surr: DNOP	108	70-130		%Rec	1	3/14/2017 11:24:31 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 10:33:54 AM	G41365
Surr: BFB	95.7	54-150		%Rec	5	3/14/2017 10:33:54 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/14/2017 10:33:54 AM	B41365
Toluene	ND	0.17		mg/Kg	5	3/14/2017 10:33:54 AM	B41365
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 10:33:54 AM	B41365
Xylenes, Total	ND	0.34		mg/Kg	5	3/14/2017 10:33:54 AM	B41365
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/14/2017 10:33:54 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-120**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 1:45:00 PM**Lab ID:** 1703655-006**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 12:50:33 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	22	9.7		mg/Kg	1	3/14/2017 11:46:22 AM	30672
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2017 11:46:22 AM	30672
Surr: DNOP	108	70-130		%Rec	1	3/14/2017 11:46:22 AM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 10:57:35 AM	G41365
Surr: BFB	96.0	54-150		%Rec	5	3/14/2017 10:57:35 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.085		mg/Kg	5	3/14/2017 10:57:35 AM	B41365
Toluene	ND	0.17		mg/Kg	5	3/14/2017 10:57:35 AM	B41365
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 10:57:35 AM	B41365
Xylenes, Total	ND	0.34		mg/Kg	5	3/14/2017 10:57:35 AM	B41365
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	5	3/14/2017 10:57:35 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-121**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 1:48:00 PM**Lab ID:** 1703655-007**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 1:02:58 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	49	9.9		mg/Kg	1	3/14/2017 12:08:04 PM	30672
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/14/2017 12:08:04 PM	30672
Surr: DNOP	110	70-130		%Rec	1	3/14/2017 12:08:04 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 11:21:08 AM	G41365
Surr: BFB	91.5	54-150		%Rec	5	3/14/2017 11:21:08 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	3/14/2017 11:21:08 AM	B41365
Toluene	ND	0.18		mg/Kg	5	3/14/2017 11:21:08 AM	B41365
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 11:21:08 AM	B41365
Xylenes, Total	ND	0.37		mg/Kg	5	3/14/2017 11:21:08 AM	B41365
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/14/2017 11:21:08 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703655

Date Reported: 3/16/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-122

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:50:00 PM

**Lab ID:** 1703655-008

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 1:15:23 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	33	9.9		mg/Kg	1	3/14/2017 12:29:55 PM	30672
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/14/2017 12:29:55 PM	30672
Surr: DNOP	108	70-130		%Rec	1	3/14/2017 12:29:55 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 11:44:38 AM	G41365
Surr: BFB	92.9	54-150		%Rec	5	3/14/2017 11:44:38 AM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/14/2017 11:44:38 AM	B41365
Toluene	ND	0.17		mg/Kg	5	3/14/2017 11:44:38 AM	B41365
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 11:44:38 AM	B41365
Xylenes, Total	ND	0.34		mg/Kg	5	3/14/2017 11:44:38 AM	B41365
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/14/2017 11:44:38 AM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**Date Reported: **3/16/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-123**Project:** Florance GC J 16A**Collection Date:** 3/13/2017 1:53:00 PM**Lab ID:** 1703655-009**Matrix:** MEOH (SOIL)**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 1:52:38 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	66	9.5		mg/Kg	1	3/14/2017 12:51:57 PM	30672
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 12:51:57 PM	30672
Surr: DNOP	111	70-130		%Rec	1	3/14/2017 12:51:57 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	3/14/2017 12:08:10 PM	G41365
Surr: BFB	91.3	54-150		%Rec	5	3/14/2017 12:08:10 PM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.094		mg/Kg	5	3/14/2017 12:08:10 PM	B41365
Toluene	ND	0.19		mg/Kg	5	3/14/2017 12:08:10 PM	B41365
Ethylbenzene	ND	0.19		mg/Kg	5	3/14/2017 12:08:10 PM	B41365
Xylenes, Total	ND	0.37		mg/Kg	5	3/14/2017 12:08:10 PM	B41365
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/14/2017 12:08:10 PM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703655

Date Reported: 3/16/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-124

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:56:00 PM

**Lab ID:** 1703655-010

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 2:05:02 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.3		mg/Kg	1	3/14/2017 1:14:02 PM	30672
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 1:14:02 PM	30672
Surr: DNOP	111	70-130		%Rec	1	3/14/2017 1:14:02 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 12:31:41 PM	G41365
Surr: BFB	95.6	54-150		%Rec	5	3/14/2017 12:31:41 PM	G41365
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	3/14/2017 12:31:41 PM	B41365
Toluene	ND	0.18		mg/Kg	5	3/14/2017 12:31:41 PM	B41365
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 12:31:41 PM	B41365
Xylenes, Total	ND	0.37		mg/Kg	5	3/14/2017 12:31:41 PM	B41365
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	5	3/14/2017 12:31:41 PM	B41365

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-125

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 1:58:00 PM

**Lab ID:** 1703655-011

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 2:17:26 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	78	10		mg/Kg	1	3/14/2017 1:36:00 PM	30672
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/14/2017 1:36:00 PM	30672
Surr: DNOP	112	70-130		%Rec	1	3/14/2017 1:36:00 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/14/2017 12:05:11 PM	30654
Surr: BFB	103	54-150		%Rec	5	3/14/2017 12:05:11 PM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.091		mg/Kg	5	3/14/2017 12:05:11 PM	30654
Toluene	ND	0.18		mg/Kg	5	3/14/2017 12:05:11 PM	30654
Ethylbenzene	ND	0.18		mg/Kg	5	3/14/2017 12:05:11 PM	30654
Xylenes, Total	ND	0.36		mg/Kg	5	3/14/2017 12:05:11 PM	30654
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	5	3/14/2017 12:05:11 PM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703655**

Date Reported: **3/16/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-126

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 2:00:00 PM

**Lab ID:** 1703655-012

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 2:29:51 PM	30689
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	10		mg/Kg	1	3/14/2017 1:58:06 PM	30672
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/14/2017 1:58:06 PM	30672
Surr: DNOP	113	70-130		%Rec	1	3/14/2017 1:58:06 PM	30672
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 12:31:23 PM	30654
Surr: BFB	101	54-150		%Rec	5	3/14/2017 12:31:23 PM	30654
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/14/2017 12:31:23 PM	30654
Toluene	ND	0.17		mg/Kg	5	3/14/2017 12:31:23 PM	30654
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 12:31:23 PM	30654
Xylenes, Total	ND	0.34		mg/Kg	5	3/14/2017 12:31:23 PM	30654
Surr: 4-Bromofluorobenzene	99.7	66.6-132		%Rec	5	3/14/2017 12:31:23 PM	30654

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703655

Date Reported: 3/16/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-127

**Project:** Florance GC J 16A

**Collection Date:** 3/13/2017 2:03:00 PM

**Lab ID:** 1703655-013

**Matrix:** MEOH (SOIL)

**Received Date:** 3/14/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/14/2017 2:42:16 PM	30689
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/14/2017 11:37:58 AM	G41358
Surr: BFB	81.4	70-130		%Rec	5	3/14/2017 11:37:58 AM	G41358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	55	9.5		mg/Kg	1	3/14/2017 2:20:12 PM	30672
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/14/2017 2:20:12 PM	30672
Surr: DNOP	105	70-130		%Rec	1	3/14/2017 2:20:12 PM	30672
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.083		mg/Kg	5	3/14/2017 11:37:58 AM	30631
Toluene	ND	0.17		mg/Kg	5	3/14/2017 11:37:58 AM	30631
Ethylbenzene	ND	0.17		mg/Kg	5	3/14/2017 11:37:58 AM	30631
Xylenes, Total	ND	0.33		mg/Kg	5	3/14/2017 11:37:58 AM	30631
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	5	3/14/2017 11:37:58 AM	30631
Surr: 4-Bromofluorobenzene	82.2	70-130		%Rec	5	3/14/2017 11:37:58 AM	30631
Surr: Dibromofluoromethane	108	70-130		%Rec	5	3/14/2017 11:37:58 AM	30631
Surr: Toluene-d8	100	70-130		%Rec	5	3/14/2017 11:37:58 AM	30631

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30689		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30689		RunNo: 41366					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1297264		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30689		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30689		RunNo: 41366					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1297265		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30672		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30672		RunNo: 41352					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1295880		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	63.8	116			
Surr: DNOP	5.1		5.000		103	70	130			

Sample ID	MB-30672		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30672		RunNo: 41352					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1295881		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-30671		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30671		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1295899		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.1	70	130			

Sample ID	MB-30671		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30671		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1295900		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		95.2	70	130			

Sample ID	1703655-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-115		Batch ID: 30672		RunNo: 41353					
Prep Date:	3/14/2017		Analysis Date: 3/14/2017		SeqNo: 1296393		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	88	10	50.20	155.4	-133	51.6	130			S
Surr: DNOP	4.4		5.020		86.8	70	130			

Sample ID	1703655-001AMSD			SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	TSP-115			Batch ID:	30672		RunNo:	41353			
Prep Date:	3/14/2017			Analysis Date:	3/14/2017		SeqNo:	1296404		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	110	9.7	48.54	155.4	-94.0	51.6	130	21.5	20	RS	

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1703655-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-115	Batch ID:	30672	RunNo:	41353					
Prep Date:	3/14/2017	Analysis Date:	3/14/2017	SeqNo:	1296404	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		4.854		88.4	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295376		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	800		1000		79.9	54	150			

Sample ID	LCS-30631		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295377		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	54	150			

Sample ID	RB	SampType:	MBLK			TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	G41365			RunNo:	41365				
Prep Date:		Analysis Date:	3/14/2017			SeqNo:	1296609	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	860		1000		86.2	54	150				

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: G41365		RunNo: 41365					
Prep Date:			Analysis Date: 3/14/2017		SeqNo: 1296610		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	130	25	125.0	0	103	76.4	125			
Surr: BFB	4800		5000		95.5	54	150			

Sample ID	1703655-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	TSP-115		Batch ID: G41365		RunNo: 41365					
Prep Date:			Analysis Date: 3/14/2017		SeqNo: 1296611		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	95	17	86.69	0	109	61.3	150			
Surr: BFB	3700		3468		106	54	150			

Sample ID	1703655-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	TSP-115		Batch ID:	G41365		RunNo:	41365				
Prep Date:			Analysis Date:	3/14/2017		SeqNo:	1296612		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	90	17	86.69	0	104	61.3	150	4.50	20		
Surr: BFB	3700		3468		107	54	150	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30654		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296623		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	750		1000		74.8	54	150			

Sample ID	LCS-30654		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296624		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	76.4	125			
Surr: BFB	980		1000		98.1	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30631		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295395		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	66.6	132			

Sample ID	LCS-30631		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41331					
Prep Date:	3/10/2017		Analysis Date: 3/13/2017		SeqNo: 1295396		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	66.6	132			

Sample ID	RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: B41365		RunNo: 41365						
Prep Date:		Analysis Date: 3/14/2017		SeqNo: 1296615		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: B41365		RunNo: 41365					
Prep Date:			Analysis Date: 3/14/2017		SeqNo: 1296616		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.2	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

Sample ID	1703655-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	TSP-116		Batch ID: B41365		RunNo: 41365					
Prep Date:			Analysis Date: 3/14/2017		SeqNo: 1296617		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	4.0	0.091	3.636	0	109	61.5	138			
Toluene	4.0	0.18	3.636	0	110	71.4	127			
Ethylbenzene	4.1	0.18	3.636	0	113	70.9	132			
Xylenes, Total	13	0.36	10.91	0	116	76.2	123			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1703655-002AMS			SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	TSP-116			Batch ID:	B41365		RunNo:	41365			
Prep Date:				Analysis Date:	3/14/2017		SeqNo:	1296617	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	4.4		3.636		120	66.6	132				

Sample ID	1703655-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	TSP-116		Batch ID: B41365		RunNo: 41365					
Prep Date:			Analysis Date: 3/14/2017		SeqNo: 1296618		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.8	0.091	3.636	0	105	61.5	138	4.04	20	
Toluene	4.0	0.18	3.636	0	109	71.4	127	0.917	20	
Ethylbenzene	4.1	0.18	3.636	0	112	70.9	132	1.15	20	
Xylenes, Total	13	0.36	10.91	0	115	76.2	123	0.170	20	
Surr: 4-Bromofluorobenzene	4.4		3.636		120	66.6	132	0	0	

Sample ID	MB-30654	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 30654		RunNo: 41364						
Prep Date:	3/13/2017	Analysis Date: 3/14/2017		SeqNo: 1296641		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.83		1.000		83.0	66.6	132			

Sample ID	LCS-30654		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30654		RunNo: 41364					
Prep Date:	3/13/2017		Analysis Date: 3/14/2017		SeqNo: 1296642		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	80	120			
Toluene	0.98	0.050	1.000	0	98.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		83.7	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	mb-30631		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	PBS		Batch ID: 30631		RunNo: 41358					
Prep Date:	3/10/2017		Analysis Date: 3/14/2017		SeqNo: 1296851		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		83.3	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID	lcs-30631		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS		Batch ID: 30631		RunNo: 41358					
Prep Date:	3/10/2017		Analysis Date: 3/14/2017		SeqNo: 1296852		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	70	130			
Toluene	1.0	0.050	1.000	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	0.56		0.5000		112	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		81.8	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703655

16-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	G41358	RunNo:	41358					
Prep Date:		Analysis Date:	3/14/2017	SeqNo:	1296869	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	410		500.0		82.2	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41358	RunNo:	41358					
Prep Date:		Analysis Date:	3/14/2017	SeqNo:	1296870	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	70	130			
Surr: BFB	430		500.0		86.7	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

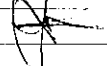
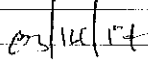
B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703655**

RcptNo: **1**

Received by/date:		
Logged By:	<b>Lindsay Mangin</b>	<b>3/14/2017 7:35:00 AM</b>
Completed By:	<b>Lindsay Mangin</b>	<b>3/14/2017 7:59:03 AM</b>
Reviewed By:	<b>AT 03/14/17</b>	

## Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

## Log In

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

# of preserved  
bottles checked  
for pH:

(&lt;2 or &gt;12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

## Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

- Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			



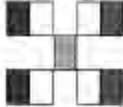
# Chain-of-Custody Record

Client: BP AMERICA  
Blagg Engineering Inc  
 Mailing Address:  
 Phone #: 505-320-1193  
 email or Fax#:  
 QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation  
☐ NELAP ☐ Other  
☐ EDD (Type)

Turn-Around Time: SAME DAY  
☐ Standard ☒ Rush  
 Project Name:  
FLUANCE GC J 16A  
 Project #:  
TREATED SOIL PILES  
 Project Manager:  
J. Blagg  
 Sampler: J. Blagg  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: 1.8

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/13/2017	1330	SOIL	TSP-115	403 x1	cool	1703655
	1335		TSP-116			-001
	1338		TSP-117			-002
	1341		TSP-118			-003
	1343		TSP-119			-004
	1345		TSP-120			-005
	1348		TSP-121			-006
	1350		TSP-122			-007
	1353		TSP-123			-008
	1356		TSP-124			-009
	1358		TSP-125			-010
	1400		TSP-126			-011
						-012

Relinquished by: Judy Blagg Date: 3/13/2017 Time: 1705  
 Relinquished by: Christina White Date: 3/13/2017 Time: 2040



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

Analysis Request

BTEX + MTBE + THMs (8021)	X	BTEX + MTBE (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)		EDB (Method 504.1)		PAH's (8310 or 8270 SIMS)		RCRA 8 Metals		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )		8081 Pesticides / 8082 PCB's		8260B (VOA)		8270 (Semi-VOA)	X	CHLORIDE		Air Bubbles (Y or N)	
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Remarks: Bill BP CONTACT: STEVE MUSE  
VIB: VHXONEVRM  
WES: LI-DO16D-E:FLRNCGCJ 16A







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

March 17, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703852

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/16/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-128

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 1:45:00 PM

**Lab ID:** 1703852-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 10:11:28 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	66	10		mg/Kg	1	3/16/2017 9:48:17 AM	30722
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/16/2017 9:48:17 AM	30722
Surr: DNOP	108	70-130		%Rec	1	3/16/2017 9:48:17 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/16/2017 8:57:18 AM	30712
Surr: BFB	111	54-150		%Rec	5	3/16/2017 8:57:18 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.080		mg/Kg	5	3/16/2017 8:57:18 AM	30712
Toluene	ND	0.16		mg/Kg	5	3/16/2017 8:57:18 AM	30712
Ethylbenzene	ND	0.16		mg/Kg	5	3/16/2017 8:57:18 AM	30712
Xylenes, Total	ND	0.32		mg/Kg	5	3/16/2017 8:57:18 AM	30712
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	5	3/16/2017 8:57:18 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-129

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 1:50:00 PM

**Lab ID:** 1703852-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 10:23:53 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	63	9.3		mg/Kg	1	3/16/2017 10:09:52 AM	30722
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/16/2017 10:09:52 AM	30722
Surr: DNOP	107	70-130		%Rec	1	3/16/2017 10:09:52 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/16/2017 9:23:37 AM	30712
Surr: BFB	116	54-150		%Rec	5	3/16/2017 9:23:37 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	3/16/2017 9:23:37 AM	30712
Toluene	ND	0.18		mg/Kg	5	3/16/2017 9:23:37 AM	30712
Ethylbenzene	ND	0.18		mg/Kg	5	3/16/2017 9:23:37 AM	30712
Xylenes, Total	ND	0.36		mg/Kg	5	3/16/2017 9:23:37 AM	30712
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	5	3/16/2017 9:23:37 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-130

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 1:55:00 PM

**Lab ID:** 1703852-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 10:36:17 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	91	9.6		mg/Kg	1	3/16/2017 10:31:32 AM	30722
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/16/2017 10:31:32 AM	30722
Surr: DNOP	108	70-130		%Rec	1	3/16/2017 10:31:32 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/16/2017 9:49:58 AM	30712
Surr: BFB	110	54-150		%Rec	5	3/16/2017 9:49:58 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	3/16/2017 9:49:58 AM	30712
Toluene	ND	0.18		mg/Kg	5	3/16/2017 9:49:58 AM	30712
Ethylbenzene	ND	0.18		mg/Kg	5	3/16/2017 9:49:58 AM	30712
Xylenes, Total	ND	0.35		mg/Kg	5	3/16/2017 9:49:58 AM	30712
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	5	3/16/2017 9:49:58 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-131

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 2:00:00 PM

**Lab ID:** 1703852-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 10:48:42 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	3/16/2017 10:53:08 AM	30722
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/16/2017 10:53:08 AM	30722
Surr: DNOP	109	70-130		%Rec	1	3/16/2017 10:53:08 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/16/2017 10:16:23 AM	30712
Surr: BFB	109	54-150		%Rec	5	3/16/2017 10:16:23 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	3/16/2017 10:16:23 AM	30712
Toluene	ND	0.17		mg/Kg	5	3/16/2017 10:16:23 AM	30712
Ethylbenzene	ND	0.17		mg/Kg	5	3/16/2017 10:16:23 AM	30712
Xylenes, Total	ND	0.35		mg/Kg	5	3/16/2017 10:16:23 AM	30712
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	5	3/16/2017 10:16:23 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-132

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 2:05:00 PM

**Lab ID:** 1703852-005

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 11:01:06 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	100	9.7		mg/Kg	1	3/16/2017 11:14:55 AM	30722
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/16/2017 11:14:55 AM	30722
Surr: DNOP	109	70-130		%Rec	1	3/16/2017 11:14:55 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/16/2017 10:42:39 AM	30712
Surr: BFB	131	54-150		%Rec	5	3/16/2017 10:42:39 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.083		mg/Kg	5	3/16/2017 10:42:39 AM	30712
Toluene	ND	0.17		mg/Kg	5	3/16/2017 10:42:39 AM	30712
Ethylbenzene	ND	0.17		mg/Kg	5	3/16/2017 10:42:39 AM	30712
Xylenes, Total	ND	0.33		mg/Kg	5	3/16/2017 10:42:39 AM	30712
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	5	3/16/2017 10:42:39 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-133

**Project:** Florance GC J 16A

**Collection Date:** 3/14/2017 2:10:00 PM

**Lab ID:** 1703852-006

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 11:13:30 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	120	10		mg/Kg	1	3/16/2017 11:36:42 AM	30722
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/16/2017 11:36:42 AM	30722
Surr: DNOP	109	70-130		%Rec	1	3/16/2017 11:36:42 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	3/16/2017 11:09:01 AM	30712
Surr: BFB	118	54-150		%Rec	5	3/16/2017 11:09:01 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.093		mg/Kg	5	3/16/2017 11:09:01 AM	30712
Toluene	ND	0.19		mg/Kg	5	3/16/2017 11:09:01 AM	30712
Ethylbenzene	ND	0.19		mg/Kg	5	3/16/2017 11:09:01 AM	30712
Xylenes, Total	ND	0.37		mg/Kg	5	3/16/2017 11:09:01 AM	30712
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	5	3/16/2017 11:09:01 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-134

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 2:15:00 PM

**Lab ID:** 1703852-007

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 11:25:55 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	85	9.9		mg/Kg	1	3/16/2017 11:58:31 AM	30722
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/16/2017 11:58:31 AM	30722
Surr: DNOP	109	70-130		%Rec	1	3/16/2017 11:58:31 AM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/16/2017 11:35:22 AM	30712
Surr: BFB	107	54-150		%Rec	5	3/16/2017 11:35:22 AM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	3/16/2017 11:35:22 AM	30712
Toluene	ND	0.18		mg/Kg	5	3/16/2017 11:35:22 AM	30712
Ethylbenzene	ND	0.18		mg/Kg	5	3/16/2017 11:35:22 AM	30712
Xylenes, Total	ND	0.37		mg/Kg	5	3/16/2017 11:35:22 AM	30712
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	5	3/16/2017 11:35:22 AM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-115R

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 2:30:00 PM

**Lab ID:** 1703852-008

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 11:38:19 AM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	97	9.6		mg/Kg	1	3/16/2017 12:20:16 PM	30722
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/16/2017 12:20:16 PM	30722
Surr: DNOP	112	70-130		%Rec	1	3/16/2017 12:20:16 PM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/16/2017 12:01:36 PM	30712
Surr: BFB	120	54-150		%Rec	5	3/16/2017 12:01:36 PM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	3/16/2017 12:01:36 PM	30712
Toluene	ND	0.17		mg/Kg	5	3/16/2017 12:01:36 PM	30712
Ethylbenzene	ND	0.17		mg/Kg	5	3/16/2017 12:01:36 PM	30712
Xylenes, Total	ND	0.35		mg/Kg	5	3/16/2017 12:01:36 PM	30712
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	5	3/16/2017 12:01:36 PM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703852

Date Reported: 3/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-118R

**Project:** Florance GC J 16A

**Collection Date:** 3/15/2017 2:38:00 PM

**Lab ID:** 1703852-009

**Matrix:** MEOH (SOIL)

**Received Date:** 3/16/2017 7:09:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/16/2017 12:15:33 PM	30730
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	63	9.2		mg/Kg	1	3/16/2017 12:42:27 PM	30722
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/16/2017 12:42:27 PM	30722
Surr: DNOP	110	70-130		%Rec	1	3/16/2017 12:42:27 PM	30722
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/16/2017 12:27:46 PM	30712
Surr: BFB	121	54-150		%Rec	5	3/16/2017 12:27:46 PM	30712
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	3/16/2017 12:27:46 PM	30712
Toluene	ND	0.17		mg/Kg	5	3/16/2017 12:27:46 PM	30712
Ethylbenzene	ND	0.17		mg/Kg	5	3/16/2017 12:27:46 PM	30712
Xylenes, Total	ND	0.33		mg/Kg	5	3/16/2017 12:27:46 PM	30712
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	5	3/16/2017 12:27:46 PM	30712

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703852

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30730		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30730		RunNo:	41429				
Prep Date:	3/16/2017		Analysis Date:	3/16/2017		SeqNo:	1299397		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30730		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30730		RunNo: 41429					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1299398		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703852

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30722		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30722		RunNo: 41403					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1297887		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-30722		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30722		RunNo: 41403					
Prep Date:	3/16/2017		Analysis Date: 3/16/2017		SeqNo: 1298115		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	96.9	63.8	116			
Surr: DNOP	4.9		5.000		98.8	70	130			

Sample ID	LCS-30698		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30698		RunNo: 41403					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299328		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-30698		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30698		RunNo: 41403					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299329		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703852

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30712		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30712		RunNo: 41422					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299218		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	730		1000		72.6	54	150			

Sample ID	LCS-30712		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30712		RunNo: 41422					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299221		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	810		1000		81.3	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703852

17-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30712		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30712		RunNo: 41422					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299243		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.79		1.000		79.2	66.6	132			

Sample ID	LCS-30712		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30712		RunNo: 41422					
Prep Date:	3/15/2017		Analysis Date: 3/16/2017		SeqNo: 1299244		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	0.99	0.050	1.000	0	98.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		84.5	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703852**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

3/16/2017 7:09:00 AM

Completed By: **Lindsay Mangin**

3/16/2017 7:29:52 AM

Reviewed By:

## 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	2.6	Good	Yes			





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

March 21, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703983

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/18/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703983**Date Reported: **3/21/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-131R-W**Project:** Florance GC J 16A**Collection Date:** 3/17/2017 10:10:00 AM**Lab ID:** 1703983-001**Matrix:** MEOH (SOIL)**Received Date:** 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 11:26:16 AM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	65	9.3		mg/Kg	1	3/20/2017 9:34:40 AM	30779
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/20/2017 9:34:40 AM	30779
Surr: DNOP	124	70-130		%Rec	1	3/20/2017 9:34:40 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/20/2017 8:56:58 AM	30752
Surr: BFB	113	54-150		%Rec	5	3/20/2017 8:56:58 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	3/20/2017 8:56:58 AM	30752
Toluene	ND	0.17		mg/Kg	5	3/20/2017 8:56:58 AM	30752
Ethylbenzene	ND	0.17		mg/Kg	5	3/20/2017 8:56:58 AM	30752
Xylenes, Total	ND	0.34		mg/Kg	5	3/20/2017 8:56:58 AM	30752
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	5	3/20/2017 8:56:58 AM	30752

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703983

Date Reported: 3/21/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-133R-W

Project: Florance GC J 16A

Collection Date: 3/17/2017 10:14:00 AM

Lab ID: 1703983-002

Matrix: MEOH (SOIL)

Received Date: 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 11:38:41 AM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	68	9.7		mg/Kg	1	3/20/2017 9:56:37 AM	30779
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/20/2017 9:56:37 AM	30779
Surr: DNOP	125	70-130		%Rec	1	3/20/2017 9:56:37 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/20/2017 9:23:21 AM	30752
Surr: BFB	105	54-150		%Rec	5	3/20/2017 9:23:21 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	5	3/20/2017 9:23:21 AM	30752
Toluene	ND	0.16		mg/Kg	5	3/20/2017 9:23:21 AM	30752
Ethylbenzene	ND	0.16		mg/Kg	5	3/20/2017 9:23:21 AM	30752
Xylenes, Total	ND	0.33		mg/Kg	5	3/20/2017 9:23:21 AM	30752
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	5	3/20/2017 9:23:21 AM	30752

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703983**Date Reported: **3/21/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-133R-E**Project:** Florance GC J 16A**Collection Date:** 3/17/2017 10:17:00 AM**Lab ID:** 1703983-003**Matrix:** MEOH (SOIL)**Received Date:** 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 11:51:06 AM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	24	9.4		mg/Kg	1	3/20/2017 10:18:48 AM	30779
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/20/2017 10:18:48 AM	30779
Surr: DNOP	127	70-130		%Rec	1	3/20/2017 10:18:48 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/20/2017 9:49:52 AM	30752
Surr: BFB	103	54-150		%Rec	5	3/20/2017 9:49:52 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.078		mg/Kg	5	3/20/2017 9:49:52 AM	30752
Toluene	ND	0.16		mg/Kg	5	3/20/2017 9:49:52 AM	30752
Ethylbenzene	ND	0.16		mg/Kg	5	3/20/2017 9:49:52 AM	30752
Xylenes, Total	ND	0.31		mg/Kg	5	3/20/2017 9:49:52 AM	30752
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	5	3/20/2017 9:49:52 AM	30752

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703983**

Date Reported: **3/21/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-131R-E

**Project:** Florance GC J 16A

**Collection Date:** 3/17/2017 10:06:00 AM

**Lab ID:** 1703983-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/18/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/20/2017 12:03:30 PM	30796
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	44	9.7		mg/Kg	1	3/20/2017 10:41:03 AM	30779
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/20/2017 10:41:03 AM	30779
Surr: DNOP	128	70-130		%Rec	1	3/20/2017 10:41:03 AM	30779
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/20/2017 10:16:16 AM	30752
Surr: BFB	106	54-150		%Rec	5	3/20/2017 10:16:16 AM	30752
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.079		mg/Kg	5	3/20/2017 10:16:16 AM	30752
Toluene	ND	0.16		mg/Kg	5	3/20/2017 10:16:16 AM	30752
Ethylbenzene	ND	0.16		mg/Kg	5	3/20/2017 10:16:16 AM	30752
Xylenes, Total	ND	0.32		mg/Kg	5	3/20/2017 10:16:16 AM	30752
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	5	3/20/2017 10:16:16 AM	30752

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703983

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30796		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30796		RunNo: 41508					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1302226		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30796		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30796		RunNo: 41508					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1302227		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703983

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30779		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30779		RunNo: 41496					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1301282		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	95.5	63.8	116			
Surr: DNOP	4.9		5.000		97.8	70	130			

Sample ID	MB-30779	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 30779			RunNo: 41496					
Prep Date:	3/20/2017	Analysis Date: 3/20/2017			SeqNo: 1301283		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		119	70	130			

Sample ID	1703983-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-131R-W		Batch ID: 30779		RunNo: 41496					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1301464		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.6	47.76	65.37	120	51.6	130			
Surr: DNOP	5.4		4.776		113	70	130			

Sample ID	1703983-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-131R-W		Batch ID: 30779		RunNo: 41496					
Prep Date:	3/20/2017		Analysis Date: 3/20/2017		SeqNo: 1301465		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	9.3	46.30	65.37	145	51.6	130	7.67	20	S
Surr: DNOP	5.2		4.630		113	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703983

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30752		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301576		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	700		1000		69.7	54	150			

Sample ID	LCS-30752		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301577		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	830		1000		82.6	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703983

21-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30752		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301599		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.76		1.000		76.3	66.6	132			

Sample ID	LCS-30752		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30752		RunNo: 41507					
Prep Date:	3/17/2017		Analysis Date: 3/20/2017		SeqNo: 1301600		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.8	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		85.4	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1703983

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/18/2017 8:15:00 AM

Completed By: Lindsay Mangin

3/18/2017 9:10:57 AM

Reviewed By:

ws

03/20/17

*Judy Hagg*

*Judy Hagg*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.1	Good	Yes			





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

March 23, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: FLORANCE GC J 16A

OrderNo.: 1703A90

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/22/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703A90**

Date Reported: **3/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-135

**Project:** FLORANCE GC J 16A

**Collection Date:** 3/21/2017 1:33:00 PM

**Lab ID:** 1703A90-001

**Matrix:** SOIL

**Received Date:** 3/22/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/22/2017 10:36:43 AM	30843
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	87	9.6		mg/Kg	1	3/22/2017 9:48:09 AM	30836
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/22/2017 9:48:09 AM	30836
Surr: DNOP	105	70-130		%Rec	1	3/22/2017 9:48:09 AM	30836
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	8.7	3.2		mg/Kg	1	3/22/2017 9:00:31 AM	G41577
Surr: BFB	204	54-150	S	%Rec	1	3/22/2017 9:00:31 AM	G41577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/22/2017 9:00:31 AM	B41577
Toluene	ND	0.032		mg/Kg	1	3/22/2017 9:00:31 AM	B41577
Ethylbenzene	ND	0.032		mg/Kg	1	3/22/2017 9:00:31 AM	B41577
Xylenes, Total	ND	0.064		mg/Kg	1	3/22/2017 9:00:31 AM	B41577
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	3/22/2017 9:00:31 AM	B41577

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703A90**

Date Reported: **3/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-136

**Project:** FLORANCE GC J 16A

**Collection Date:** 3/21/2017 1:42:00 PM

**Lab ID:** 1703A90-002

**Matrix:** SOIL

**Received Date:** 3/22/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/22/2017 10:49:08 AM	30843
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	98	9.6		mg/Kg	1	3/22/2017 10:10:18 AM	30836
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/22/2017 10:10:18 AM	30836
Surr: DNOP	108	70-130		%Rec	1	3/22/2017 10:10:18 AM	30836
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	9.6	3.1		mg/Kg	1	3/22/2017 9:24:07 AM	G41577
Surr: BFB	212	54-150	S	%Rec	1	3/22/2017 9:24:07 AM	G41577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	3/22/2017 9:24:07 AM	B41577
Toluene	ND	0.031		mg/Kg	1	3/22/2017 9:24:07 AM	B41577
Ethylbenzene	ND	0.031		mg/Kg	1	3/22/2017 9:24:07 AM	B41577
Xylenes, Total	ND	0.062		mg/Kg	1	3/22/2017 9:24:07 AM	B41577
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	3/22/2017 9:24:07 AM	B41577

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703A90**

Date Reported: **3/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-137

**Project:** FLORANCE GC J 16A

**Collection Date:** 3/21/2017 1:50:00 PM

**Lab ID:** 1703A90-003

**Matrix:** SOIL

**Received Date:** 3/22/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/22/2017 11:01:32 AM	30843
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	44	9.9		mg/Kg	1	3/22/2017 10:32:17 AM	30836
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/22/2017 10:32:17 AM	30836
Surr: DNOP	108	70-130		%Rec	1	3/22/2017 10:32:17 AM	30836
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	6.7	3.0		mg/Kg	1	3/22/2017 9:47:38 AM	G41577
Surr: BFB	191	54-150	S	%Rec	1	3/22/2017 9:47:38 AM	G41577
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	3/22/2017 9:47:38 AM	B41577
Toluene	ND	0.030		mg/Kg	1	3/22/2017 9:47:38 AM	B41577
Ethylbenzene	ND	0.030		mg/Kg	1	3/22/2017 9:47:38 AM	B41577
Xylenes, Total	ND	0.059		mg/Kg	1	3/22/2017 9:47:38 AM	B41577
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	3/22/2017 9:47:38 AM	B41577

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A90

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-30843		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30843		RunNo: 41580					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1304961		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30843		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30843		RunNo: 41580					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1304962		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A90

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	LCS-30836		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30836		RunNo: 41566					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1303563		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	96.8	63.8	116			
Surr: DNOP	4.9		5.000		97.7	70	130			

Sample ID	MB-30836		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30836		RunNo: 41566					
Prep Date:	3/22/2017		Analysis Date: 3/22/2017		SeqNo: 1303564		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A90

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>G41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304575</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.8	54	150			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>G41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304576</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.4	76.4	125			
Surr: BFB	960		1000		96.4	54	150			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703A90

23-Mar-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>B41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304581</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8021B: Volatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>B41577</b>			RunNo: <b>41577</b>						
Prep Date:	Analysis Date: <b>3/22/2017</b>			SeqNo: <b>1304582</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.95	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.3	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703A90**

RcptNo: **1**

Received by/date:

**AT 03/22/17**

Logged By: **Anne Thorne**
**3/22/2017 7:30:00 AM**


Completed By: **Anne Thorne**
**3/22/2017 7:44:52 AM**


Reviewed By:

**AT**
**03/22/17**

## 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:

(&lt;2 or &gt;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	3.0	Good	Yes			

# UNIVERSITY RECORD

Client: **BP AMERICA**  
**BLAGG ENGINEERING INC.**  
 Mailing Address:

Phone #: **(505) 320-1183**  
 email or Fax#:  
 QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation  
☐ NELAP ☐ Other  
☐ EDD (Type)

Sampler: **J. Blagg**  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: **30**

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/1/2017	1333	SOIL	TSP-135	4 oz x1	COOL	1703A90
"	1342	"	TSP-136	"	"	202
"	1350	"	TSP-137	"	"	203

Date: **3/2/2017** Time: **1730** Relinquished by: **JH Blagg** For **SHAW**  
 Date: Relinquished by:

☐ Standard ☒ Rush  
 Project Name:  
**FLORENCE GC J 16A**

Project #:  
**TREATED SOIL PILES**

Project Manager:  
**J. Blagg**

Project #:  
**1703A90**

BTX + MTBE + TPH (Gas only)	BTX + MTBE + TPH (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X	X								X	
X	X	X								X	
X	X	X								X	

Received by: **John J. Blagg** Date: **3/2/2017** Time: **1730**  
 Received by: Date: Time:



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

## Analysis Request

BTX + MTBE + TPH (Gas only)	BTX + MTBE + TPH (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X	X								X	
X	X	X								X	
X	X	X								X	

Remarks: **BILL BP** CONTACT: **STEVE MOSKAL**  
**VID: VHXONEVRM**  
**WBS ELEMENT: LI-0016D-E:FLRNCGCJ16A**  
**NOTE: SAMPLES TREATED WITH H<sub>2</sub>O<sub>2</sub>**



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

March 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703B60

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/23/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703B60**

Date Reported: **3/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-138

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 1:10:00 PM

**Lab ID:** 1703B60-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 1:05:41 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	29	9.3		mg/Kg	1	3/23/2017 12:05:43 PM	30857
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/23/2017 12:05:43 PM	30857
Surr: DNOP	107	70-130		%Rec	1	3/23/2017 12:05:43 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/23/2017 9:52:06 AM	30837
Surr: BFB	121	54-150		%Rec	5	3/23/2017 9:52:06 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	5	3/23/2017 9:52:06 AM	30837
Toluene	ND	0.16		mg/Kg	5	3/23/2017 9:52:06 AM	30837
Ethylbenzene	ND	0.16		mg/Kg	5	3/23/2017 9:52:06 AM	30837
Xylenes, Total	ND	0.33		mg/Kg	5	3/23/2017 9:52:06 AM	30837
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/23/2017 9:52:06 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703B60**

Date Reported: **3/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-139

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 1:15:00 PM

**Lab ID:** 1703B60-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 1:18:06 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	86	9.4		mg/Kg	1	3/23/2017 12:28:08 PM	30857
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/23/2017 12:28:08 PM	30857
Surr: DNOP	111	70-130		%Rec	1	3/23/2017 12:28:08 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/23/2017 10:18:36 AM	30837
Surr: BFB	132	54-150		%Rec	5	3/23/2017 10:18:36 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/23/2017 10:18:36 AM	30837
Toluene	ND	0.17		mg/Kg	5	3/23/2017 10:18:36 AM	30837
Ethylbenzene	ND	0.17		mg/Kg	5	3/23/2017 10:18:36 AM	30837
Xylenes, Total	ND	0.34		mg/Kg	5	3/23/2017 10:18:36 AM	30837
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/23/2017 10:18:36 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703B60**Date Reported: **3/24/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-140**Project:** Florance GC J 16A**Collection Date:** 3/22/2017 1:20:00 PM**Lab ID:** 1703B60-003**Matrix:** MEOH (SOIL)**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 1:30:30 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	9.9		mg/Kg	1	3/23/2017 12:50:25 PM	30857
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/23/2017 12:50:25 PM	30857
Surr: DNOP	110	70-130		%Rec	1	3/23/2017 12:50:25 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/23/2017 10:45:02 AM	30837
Surr: BFB	128	54-150		%Rec	5	3/23/2017 10:45:02 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	3/23/2017 10:45:02 AM	30837
Toluene	ND	0.18		mg/Kg	5	3/23/2017 10:45:02 AM	30837
Ethylbenzene	ND	0.18		mg/Kg	5	3/23/2017 10:45:02 AM	30837
Xylenes, Total	ND	0.36		mg/Kg	5	3/23/2017 10:45:02 AM	30837
Surr: 4-Bromofluorobenzene	115	66.6-132		%Rec	5	3/23/2017 10:45:02 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703B60

Date Reported: 3/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-141

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 1:25:00 PM

**Lab ID:** 1703B60-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 1:42:55 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	35	9.4		mg/Kg	1	3/23/2017 1:12:52 PM	30857
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/23/2017 1:12:52 PM	30857
Surr: DNOP	110	70-130		%Rec	1	3/23/2017 1:12:52 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/23/2017 11:11:15 AM	30837
Surr: BFB	120	54-150		%Rec	5	3/23/2017 11:11:15 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	3/23/2017 11:11:15 AM	30837
Toluene	ND	0.17		mg/Kg	5	3/23/2017 11:11:15 AM	30837
Ethylbenzene	ND	0.17		mg/Kg	5	3/23/2017 11:11:15 AM	30837
Xylenes, Total	ND	0.35		mg/Kg	5	3/23/2017 11:11:15 AM	30837
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/23/2017 11:11:15 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703B60

Date Reported: 3/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-142

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 1:30:00 PM

**Lab ID:** 1703B60-005

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 1:55:19 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	92	9.4		mg/Kg	1	3/23/2017 12:11:53 PM	30857
Motor Oil Range Organics (MRO)	68	47		mg/Kg	1	3/23/2017 12:11:53 PM	30857
Surr: DNOP	85.3	70-130		%Rec	1	3/23/2017 12:11:53 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/23/2017 11:37:31 AM	30837
Surr: BFB	130	54-150		%Rec	5	3/23/2017 11:37:31 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.080		mg/Kg	5	3/23/2017 11:37:31 AM	30837
Toluene	ND	0.16		mg/Kg	5	3/23/2017 11:37:31 AM	30837
Ethylbenzene	ND	0.16		mg/Kg	5	3/23/2017 11:37:31 AM	30837
Xylenes, Total	ND	0.32		mg/Kg	5	3/23/2017 11:37:31 AM	30837
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	5	3/23/2017 11:37:31 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703B60

Date Reported: 3/24/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-136R-N

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 2:50:00 PM

**Lab ID:** 1703B60-006

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 2:07:44 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	73	9.8		mg/Kg	1	3/23/2017 1:34:55 PM	30857
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/23/2017 1:34:55 PM	30857
Surr: DNOP	112	70-130		%Rec	1	3/23/2017 1:34:55 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/23/2017 12:03:42 PM	30837
Surr: BFB	114	54-150		%Rec	5	3/23/2017 12:03:42 PM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.092		mg/Kg	5	3/23/2017 12:03:42 PM	30837
Toluene	ND	0.18		mg/Kg	5	3/23/2017 12:03:42 PM	30837
Ethylbenzene	ND	0.18		mg/Kg	5	3/23/2017 12:03:42 PM	30837
Xylenes, Total	ND	0.37		mg/Kg	5	3/23/2017 12:03:42 PM	30837
Surr: 4-Bromofluorobenzene	115	66.6-132		%Rec	5	3/23/2017 12:03:42 PM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703B60**

Date Reported: **3/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-136R-S

**Project:** Florance GC J 16A

**Collection Date:** 3/22/2017 2:55:00 PM

**Lab ID:** 1703B60-007

**Matrix:** MEOH (SOIL)

**Received Date:** 3/23/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/23/2017 2:20:09 PM	30864
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	3/23/2017 12:40:06 PM	30857
Motor Oil Range Organics (MRO)	55	49		mg/Kg	1	3/23/2017 12:40:06 PM	30857
Surr: DNOP	85.3	70-130		%Rec	1	3/23/2017 12:40:06 PM	30857
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	3/23/2017 9:25:35 AM	30837
Surr: BFB	125	54-150		%Rec	5	3/23/2017 9:25:35 AM	30837
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.093		mg/Kg	5	3/23/2017 9:25:35 AM	30837
Toluene	ND	0.19		mg/Kg	5	3/23/2017 9:25:35 AM	30837
Ethylbenzene	ND	0.19		mg/Kg	5	3/23/2017 9:25:35 AM	30837
Xylenes, Total	ND	0.37		mg/Kg	5	3/23/2017 9:25:35 AM	30837
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/23/2017 9:25:35 AM	30837

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703B60

24-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30864		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30864		RunNo:	41611				
Prep Date:	3/23/2017		Analysis Date:	3/23/2017		SeqNo:	1305782		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30864		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30864		RunNo: 41611					
Prep Date:	3/23/2017		Analysis Date: 3/23/2017		SeqNo: 1305783		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.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703B60

24-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30857		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30857		RunNo: 41593					
Prep Date:	3/23/2017		Analysis Date: 3/23/2017		SeqNo: 1304737		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	LCS-30857		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30857		RunNo: 41593					
Prep Date:	3/23/2017		Analysis Date: 3/23/2017		SeqNo: 1304744		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	63.8	116			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID	LCS-30846		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30846		RunNo: 41593					
Prep Date:	3/22/2017		Analysis Date: 3/23/2017		SeqNo: 1305627		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		103	70	130			

Sample ID	MB-30846		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30846		RunNo: 41593					
Prep Date:	3/22/2017		Analysis Date: 3/23/2017		SeqNo: 1305628		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		105	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703B60

24-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30837		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	30837		RunNo:	41605				
Prep Date:	3/22/2017		Analysis Date:	3/23/2017		SeqNo:	1305591		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	980		1000		97.8	54	150				

Sample ID	LCS-30837		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30837		RunNo: 41605					
Prep Date:	3/22/2017		Analysis Date: 3/23/2017		SeqNo: 1305592		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	119	76.4	125			
Surr: BFB	1200		1000		116	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703B60

24-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30837		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30837		RunNo: 41605					
Prep Date:	3/22/2017		Analysis Date: 3/23/2017		SeqNo: 1305611		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

Sample ID	LCS-30837		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30837		RunNo: 41605					
Prep Date:	3/22/2017		Analysis Date: 3/23/2017		SeqNo: 1305612		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.5	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.3	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
4801 Hawkins NE  
Albuquerque, NM 87199  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1703B60

Rep#No: 1

Received by/date:

03/23/17

Logged By: Lindsay Mangin

3/23/2017 7:20:00 AM

Completed By: Lindsay Mangin

3/23/2017 8:38:47 AM

Reviewed By:

aj

03/23/17

### 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  $>0^{\circ}\text{C}$  to  $5.0^{\circ}\text{C}$ ? 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. $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record						
Client: BP AMERICA		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush				
Mailing Address:		Project Name: FLORENCE GC J 16A				
Phone #: (505) 320-1183		Project #: TREATED SOIL PILES				
email or Fax#:		Project Manager: J. Blagg				
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: J. Blagg On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Accreditation: <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		Sample Temperature: 17				
<input type="checkbox"/> EDD (Type)						
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/22/17	1310	SOIL	TSP-138	4 oz x 1	Cool	1703BB60
"	1315	"	TSP-139	"	"	-001
"	1320	"	TSP-140	"	"	-002
"	1325	"	TSP-141	"	"	-003
"	1330	"	TSP-142	"	"	-004
"	1450	"	TSP-136R-N	"	"	-005
"	1455	"	TSP-136R-S	"	"	-006
Date: 3/22/17	Time: 1542	Relinquished by: Ant Wast		Received by: Ant Wast		Date: 3/22/17 Time: 1542
Date: 3/22/17	Time: 1824	Relinquished by: Ant Wast		Received by: [Signature]		Date: 3/23/17 Time: 0732

Turn-Around Time:		SAME DAY
<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush	
Project Name:		FLORENCE GC J 16A
Project #:		TREATED SOIL PILES
Project Manager:		J. Blagg
Sampler:		J. Blagg
On Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Sample Temperature:		1:7
Container Type and #	Preservative Type	HEAL No.
4 oz x 1	Cool	1703B60
"	"	-001
"	"	-002
"	"	-003
"	"	-004
"	"	-005
"	"	-006
"	"	-007
Received by:		Date      Time
<i>[Signature]</i>		3/22/17    1542
Received by:		Date      Time
<i>[Signature]</i>		3/23/17    0720

Chain-of-Custody Record			
Client: <u>BP AMERICA</u>			
<u>BLAKE ENGINEERING INC.</u>			
Mailing Address:			
Phone #: <u>(505) 320-1183</u>			
email or Fax#:			
QA/QC Package:			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation			
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
<input type="checkbox"/> EDO (Type) _____			
Date	Time	Matrix	Sample Request ID
3/22/17	1310	Soil	TSP-138
"	1315	"	TSP-139
"	1320	"	TSP-140
"	1325	"	TSP-141
"	1330	"	TSP-142
"	1450	"	TSP-136R-N
"	1455	"	TSP-136R-S
Date: <u>3/24/2017</u>	Time: <u>1542</u>	Relinquished by: <u>Jeff Blagg</u>	
Date: <u>3/22/17</u>	Time: <u>1824</u>	Relinquished by: <u>Ant West</u>	

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

Remarks: BUL BP		CONTACT: STEVE MOSKAL	
VID: VHIXONEVRM		NEW WBS Element: L1-0018N-E:FLRNC6CT16A	
NOTE: SAMPLES TREATED WITH H <sub>2</sub> O <sub>2</sub>			
BTEX + MTBE + TMS (8021)	X		
BTEX + MTBE + TPH (Gas only)			
TPH 8015B (GRO / DRO / MRO)	X		
TPH (Method 418.1)			
EDB (Method 504.1)			
PAH's (8310 or 8270 SIMS)			
RCRA 8 Metals			
Anions (F <sub>1</sub> , Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )			
8081 Pesticides / 8082 PCB's			
8260B (VOA)			
8270 (Semi-VOA)			
CHLORIDE	X		
Air Bubbles (Y or N)			

Remarks: BL BP CONTACT: STEVE MOSKAL  
VID: VHXONV9RM  
NEW WBS ELEMENT: L1-0018N-E:FLRNCJ16A  
NOTE: SAMPLES TREATED WITH H<sub>2</sub>O.

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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 27, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703C51

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/24/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703C51

Date Reported: 3/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-143

**Project:** Florance GC J 16A

**Collection Date:** 3/23/2017 1:01:00 PM

**Lab ID:** 1703C51-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/24/2017 7:32:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/24/2017 11:53:14 AM	30888
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	78	9.4		mg/Kg	1	3/24/2017 9:08:47 AM	30879
Motor Oil Range Organics (MRO)	48	47		mg/Kg	1	3/24/2017 9:08:47 AM	30879
Surr: DNOP	87.8	70-130		%Rec	1	3/24/2017 9:08:47 AM	30879
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	4.2	3.4		mg/Kg	1	3/24/2017 8:45:25 AM	G41636
Surr: BFB	191	54-150	S	%Rec	1	3/24/2017 8:45:25 AM	G41636
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/24/2017 8:45:25 AM	B41636
Toluene	ND	0.034		mg/Kg	1	3/24/2017 8:45:25 AM	B41636
Ethylbenzene	ND	0.034		mg/Kg	1	3/24/2017 8:45:25 AM	B41636
Xylenes, Total	ND	0.068		mg/Kg	1	3/24/2017 8:45:25 AM	B41636
Surr: 4-Bromofluorobenzene	92.2	66.6-132		%Rec	1	3/24/2017 8:45:25 AM	B41636

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703C51

Date Reported: 3/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-144

**Project:** Florance GC J 16A

**Collection Date:** 3/23/2017 1:05:00 PM

**Lab ID:** 1703C51-002

**Matrix:** MEOH (SOIL)

**Received Date:** 3/24/2017 7:32:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/24/2017 12:05:38 PM	30888
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	87	9.6		mg/Kg	1	3/24/2017 9:36:02 AM	30879
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/24/2017 9:36:02 AM	30879
Surr: DNOP	87.3	70-130		%Rec	1	3/24/2017 9:36:02 AM	30879
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5.5	3.4		mg/Kg	1	3/24/2017 9:11:54 AM	G41636
Surr: BFB	207	54-150	S	%Rec	1	3/24/2017 9:11:54 AM	G41636
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	3/24/2017 9:11:54 AM	B41636
Toluene	ND	0.034		mg/Kg	1	3/24/2017 9:11:54 AM	B41636
Ethylbenzene	ND	0.034		mg/Kg	1	3/24/2017 9:11:54 AM	B41636
Xylenes, Total	ND	0.068		mg/Kg	1	3/24/2017 9:11:54 AM	B41636
Surr: 4-Bromofluorobenzene	90.2	66.6-132		%Rec	1	3/24/2017 9:11:54 AM	B41636

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703C51

Date Reported: 3/27/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-145

**Project:** Florance GC J 16A

**Collection Date:** 3/23/2017 1:11:00 PM

**Lab ID:** 1703C51-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/24/2017 7:32:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/24/2017 12:18:03 PM	30888
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	73	9.4		mg/Kg	1	3/24/2017 10:02:57 AM	30879
Motor Oil Range Organics (MRO)	56	47		mg/Kg	1	3/24/2017 10:02:57 AM	30879
Surr: DNOP	88.9	70-130		%Rec	1	3/24/2017 10:02:57 AM	30879
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	6.6	3.3		mg/Kg	1	3/24/2017 9:38:27 AM	G41636
Surr: BFB	222	54-150	S	%Rec	1	3/24/2017 9:38:27 AM	G41636
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/24/2017 9:38:27 AM	B41636
Toluene	ND	0.033		mg/Kg	1	3/24/2017 9:38:27 AM	B41636
Ethylbenzene	ND	0.033		mg/Kg	1	3/24/2017 9:38:27 AM	B41636
Xylenes, Total	ND	0.066		mg/Kg	1	3/24/2017 9:38:27 AM	B41636
Surr: 4-Bromofluorobenzene	90.1	66.6-132		%Rec	1	3/24/2017 9:38:27 AM	B41636

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703C51

Date Reported: 3/27/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-146

Project: Florance GC J 16A

Collection Date: 3/23/2017 1:16:00 PM

Lab ID: 1703C51-004

Matrix: MEOH (SOIL)

Received Date: 3/24/2017 7:32:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/24/2017 12:30:28 PM	30888
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	39	9.2		mg/Kg	1	3/24/2017 10:30:00 AM	30879
Motor Oil Range Organics (MRO)	63	46		mg/Kg	1	3/24/2017 10:30:00 AM	30879
Surr: DNOP	88.7	70-130		%Rec	1	3/24/2017 10:30:00 AM	30879
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/24/2017 10:04:54 AM	G41636
Surr: BFB	146	54-150		%Rec	1	3/24/2017 10:04:54 AM	G41636
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	3/24/2017 10:04:54 AM	B41636
Toluene	ND	0.032		mg/Kg	1	3/24/2017 10:04:54 AM	B41636
Ethylbenzene	ND	0.032		mg/Kg	1	3/24/2017 10:04:54 AM	B41636
Xylenes, Total	ND	0.065		mg/Kg	1	3/24/2017 10:04:54 AM	B41636
Surr: 4-Bromofluorobenzene	92.4	66.6-132		%Rec	1	3/24/2017 10:04:54 AM	B41636

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703C51

27-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30888		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30888		RunNo: 41638					
Prep Date:	3/24/2017		Analysis Date: 3/24/2017		SeqNo: 1306997		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30888		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30888		RunNo: 41638					
Prep Date:	3/24/2017		Analysis Date: 3/24/2017		SeqNo: 1306998		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.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703C51

27-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30879		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30879		RunNo: 41619					
Prep Date:	3/24/2017		Analysis Date: 3/24/2017		SeqNo: 1305772		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	70	130			

Sample ID	LCS-30879		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30879		RunNo: 41619					
Prep Date:	3/24/2017		Analysis Date: 3/24/2017		SeqNo: 1305773		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	97.8	63.8	116			
Surr: DNOP	4.9		5.000		98.4	70	130			

Sample ID	MB-30871		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30871		RunNo: 41626					
Prep Date:	3/23/2017		Analysis Date: 3/24/2017		SeqNo: 1306244		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.3	70	130			

Sample ID	LCS-30871		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30871		RunNo: 41626					
Prep Date:	3/23/2017		Analysis Date: 3/24/2017		SeqNo: 1306288		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.5	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703C51

27-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306599	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	900		1000		89.5	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306600	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	105	76.4	125			
Surr: BFB	1000		1000		102	54	150			

Sample ID	1703C51-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-143	Batch ID:	G41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306601	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	3.4	16.98	4.171	119	61.3	150			
Surr: BFB	1400		679.3		200	54	150			S

Sample ID	1703C51-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-143	Batch ID:	G41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306602	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	3.4	16.98	4.171	114	61.3	150	3.65	20	
Surr: BFB	1300		679.3		194	54	150	0	0	S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703C51

27-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306606	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306607	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.1	0.050	1.000	0	111	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.6	0.10	3.000	0	120	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

Sample ID	1703C51-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-144	Batch ID:	B41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306608	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.017	0.6798	0	98.3	61.5	138			
Toluene	0.68	0.034	0.6798	0.005914	99.7	71.4	127			
Ethylbenzene	0.68	0.034	0.6798	0.02169	97.5	70.9	132			
Xylenes, Total	2.0	0.068	2.039	0.02352	97.9	76.2	123			
Surr: 4-Bromofluorobenzene	0.55		0.6798		81.4	66.6	132			

Sample ID	1703C51-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-144	Batch ID:	B41636	RunNo:	41636					
Prep Date:		Analysis Date:	3/24/2017	SeqNo:	1306609	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.017	0.6798	0	96.2	61.5	138	2.12	20	
Toluene	0.67	0.034	0.6798	0.005914	98.1	71.4	127	1.60	20	
Ethylbenzene	0.67	0.034	0.6798	0.02169	95.0	70.9	132	2.53	20	
Xylenes, Total	2.0	0.068	2.039	0.02352	95.7	76.2	123	2.24	20	
Surr: 4-Bromofluorobenzene	0.54		0.6798		78.8	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1703C51

RcptNo: 1

Received by/date: 7/25/17

Logged By: Lindsay Mangin

3/24/2017 7:32:00 AM

Completed By: Lindsay Mangin

3/24/2017 7:52:24 AM

Reviewed By: ENM

03/24/17

@ 0815

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

<b>Chain-of-Custody Record</b>						<b>Turn-Around Time:</b>
Client: BP AMERICA						SAME DAY
BAGG ENGINEERING INC.						
Mailing Address:						
Phone # (SO's) 320-1183						
email or Fax#:						
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)						
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____						
<input type="checkbox"/> EDD (Type) _____						
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No./#
3/23/2017	1301	Soil	TSP - 143	4 oz x 1	Cool	-001
	1305		TSP - 144			-002
	1311		TSP - 145			-003
	1316		TSP - 146			-004
Requisitioned by: Jeff Bagg				Received By: Matthew Warrick		Date / Time: 3/23/2017 1630
Date: 3/23/2017 1630				Date: 3/23/2017		Time: 1630
Requisitioned by: Matthew Warrick				Received By: [Signature]		Date / Time: 3/24/17 0732
Date: 3/23/17 1819				Date: 3/24/17		Time: 0732

**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE • Albuquerque, NM 87109

Tel. 505-346-3975 Fax 505-345-4107

Remarks	Bul BP	CONTACT: STEVE MOSKAL
BTEX + <del>MIBF</del> + <del>DMB</del> s (8021)	X	VID: VHIXONEVRM WBS ELEMENT: L1-0018N-E:FLRNCGCT16A NOTE: SAMPLES TREATED WITH H <sub>2</sub> O <sub>2</sub>
BTEX + MIBF + TPH (Gas only)	X	
TPH 80158 (GRO / DRO / MRO)	X	
TPH (Method 418.1)		
EDB (Method 504.1)		
PAH's (B310 or 8270 SIMS)		
RCRA 8 Metals		
Anions (F <sup>-</sup> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>-</sup> , SO <sub>4</sub> <sup>-</sup> )		
8081 Pesticides / 8082 PCB's		
8260B (VOA)		
8270 (Semi-VOA)	X	
<del>CHLORINE</del>	—	
Air Bubbles (Y or N)		

Date:	Time:	Reinquired by:	Received by:	Date	Time
6/23/07	1630	Jeff Berg	Matthew Wats	3/23/07	1630
6/23/07	1815	Matthew Wats	Matthew Wats	03/24/07	0732

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





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

March 29, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1703D45

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 15 sample(s) on 3/28/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-136R2-S

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:09:00 PM

**Lab ID:** 1703D45-001

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 10:38:14 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	88	9.6		mg/Kg	1	3/28/2017 9:38:28 AM	30930
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/28/2017 9:38:28 AM	30930
Surr: DNOP	115	70-130		%Rec	1	3/28/2017 9:38:28 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/28/2017 9:05:03 AM	30918
Surr: BFB	99.6	54-150		%Rec	5	3/28/2017 9:05:03 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	3/28/2017 9:05:03 AM	30918
Toluene	ND	0.18		mg/Kg	5	3/28/2017 9:05:03 AM	30918
Ethylbenzene	ND	0.18		mg/Kg	5	3/28/2017 9:05:03 AM	30918
Xylenes, Total	ND	0.36		mg/Kg	5	3/28/2017 9:05:03 AM	30918
Surr: 4-Bromofluorobenzene	101	66.6-132		%Rec	5	3/28/2017 9:05:03 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1703D45-002

**Client Sample ID:** TSP-142R-S

**Collection Date:** 3/27/2017 1:13:00 PM

**Received Date:** 3/28/2017 7:15:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 10:50:39 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	69	9.9		mg/Kg	1	3/28/2017 10:00:34 AM	30930
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/28/2017 10:00:34 AM	30930
Surr: DNOP	113	70-130		%Rec	1	3/28/2017 10:00:34 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/28/2017 9:31:24 AM	30918
Surr: BFB	108	54-150		%Rec	5	3/28/2017 9:31:24 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	3/28/2017 9:31:24 AM	30918
Toluene	ND	0.18		mg/Kg	5	3/28/2017 9:31:24 AM	30918
Ethylbenzene	ND	0.18		mg/Kg	5	3/28/2017 9:31:24 AM	30918
Xylenes, Total	ND	0.35		mg/Kg	5	3/28/2017 9:31:24 AM	30918
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	5	3/28/2017 9:31:24 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-142R-N

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:18:00 PM

**Lab ID:** 1703D45-003

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 11:03:03 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	60	9.5		mg/Kg	1	3/28/2017 10:22:30 AM	30930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/28/2017 10:22:30 AM	30930
Surr: DNOP	113	70-130		%Rec	1	3/28/2017 10:22:30 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 9:57:53 AM	30918
Surr: BFB	110	54-150		%Rec	5	3/28/2017 9:57:53 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	3/28/2017 9:57:53 AM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 9:57:53 AM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 9:57:53 AM	30918
Xylenes, Total	ND	0.34		mg/Kg	5	3/28/2017 9:57:53 AM	30918
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	5	3/28/2017 9:57:53 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-143R-N

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:23:00 PM

**Lab ID:** 1703D45-004

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 11:15:28 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	73	9.9		mg/Kg	1	3/28/2017 10:44:34 AM	30930
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/28/2017 10:44:34 AM	30930
Surr: DNOP	109	70-130		%Rec	1	3/28/2017 10:44:34 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 10:24:22 AM	30918
Surr: BFB	110	54-150		%Rec	5	3/28/2017 10:24:22 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.087		mg/Kg	5	3/28/2017 10:24:22 AM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 10:24:22 AM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 10:24:22 AM	30918
Xylenes, Total	ND	0.35		mg/Kg	5	3/28/2017 10:24:22 AM	30918
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	5	3/28/2017 10:24:22 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-143R-S

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:29:00 PM

**Lab ID:** 1703D45-005

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 11:27:52 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	47	9.9		mg/Kg	1	3/28/2017 11:06:33 AM	30930
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/28/2017 11:06:33 AM	30930
Surr: DNOP	110	70-130		%Rec	1	3/28/2017 11:06:33 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/28/2017 10:50:40 AM	30918
Surr: BFB	102	54-150		%Rec	5	3/28/2017 10:50:40 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	5	3/28/2017 10:50:40 AM	30918
Toluene	ND	0.16		mg/Kg	5	3/28/2017 10:50:40 AM	30918
Ethylbenzene	ND	0.16		mg/Kg	5	3/28/2017 10:50:40 AM	30918
Xylenes, Total	ND	0.33		mg/Kg	5	3/28/2017 10:50:40 AM	30918
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	5	3/28/2017 10:50:40 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1703D45-006

**Client Sample ID:** TSP-145R-N

**Collection Date:** 3/27/2017 1:33:00 PM

**Received Date:** 3/28/2017 7:15:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 11:40:17 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	48	9.4		mg/Kg	1	3/28/2017 11:28:40 AM	30930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/28/2017 11:28:40 AM	30930
Surr: DNOP	110	70-130		%Rec	1	3/28/2017 11:28:40 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/28/2017 11:17:07 AM	30918
Surr: BFB	108	54-150		%Rec	5	3/28/2017 11:17:07 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	3/28/2017 11:17:07 AM	30918
Toluene	ND	0.18		mg/Kg	5	3/28/2017 11:17:07 AM	30918
Ethylbenzene	ND	0.18		mg/Kg	5	3/28/2017 11:17:07 AM	30918
Xylenes, Total	ND	0.35		mg/Kg	5	3/28/2017 11:17:07 AM	30918
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	5	3/28/2017 11:17:07 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703D45**

Date Reported: **3/29/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-145R-S

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:36:00 PM

**Lab ID:** 1703D45-007

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 11:52:41 AM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	63	9.7		mg/Kg	1	3/28/2017 11:50:37 AM	30930
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/28/2017 11:50:37 AM	30930
Surr: DNOP	112	70-130		%Rec	1	3/28/2017 11:50:37 AM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 11:43:33 AM	30918
Surr: BFB	105	54-150		%Rec	5	3/28/2017 11:43:33 AM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	3/28/2017 11:43:33 AM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 11:43:33 AM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 11:43:33 AM	30918
Xylenes, Total	ND	0.33		mg/Kg	5	3/28/2017 11:43:33 AM	30918
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	5	3/28/2017 11:43:33 AM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1703D45-008

**Client Sample ID:** TSP-146R-N

**Collection Date:** 3/27/2017 1:40:00 PM

**Received Date:** 3/28/2017 7:15:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 12:05:05 PM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	10		mg/Kg	1	3/28/2017 12:12:55 PM	30930
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/28/2017 12:12:55 PM	30930
Surr: DNOP	110	70-130		%Rec	1	3/28/2017 12:12:55 PM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 12:09:57 PM	30918
Surr: BFB	102	54-150		%Rec	5	3/28/2017 12:09:57 PM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.085		mg/Kg	5	3/28/2017 12:09:57 PM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 12:09:57 PM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 12:09:57 PM	30918
Xylenes, Total	ND	0.34		mg/Kg	5	3/28/2017 12:09:57 PM	30918
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	5	3/28/2017 12:09:57 PM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1703D45-009

**Client Sample ID:** TSP-146R-S

**Collection Date:** 3/27/2017 1:45:00 PM

**Received Date:** 3/28/2017 7:15:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 12:42:19 PM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	52	9.6		mg/Kg	1	3/28/2017 12:34:50 PM	30930
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/28/2017 12:34:50 PM	30930
Surr: DNOP	113	70-130		%Rec	1	3/28/2017 12:34:50 PM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 12:58:10 PM	30918
Surr: BFB	96.2	54-150		%Rec	5	3/28/2017 12:58:10 PM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/28/2017 12:58:10 PM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 12:58:10 PM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 12:58:10 PM	30918
Xylenes, Total	ND	0.34		mg/Kg	5	3/28/2017 12:58:10 PM	30918
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	5	3/28/2017 12:58:10 PM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-147

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:51:00 PM

**Lab ID:** 1703D45-010

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 12:54:44 PM	30936
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	49	9.3		mg/Kg	1	3/28/2017 1:43:01 PM	30930
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/28/2017 1:43:01 PM	30930
Surr: DNOP	94.8	70-130		%Rec	1	3/28/2017 1:43:01 PM	30930
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 1:24:29 PM	30918
Surr: BFB	99.3	54-150		%Rec	5	3/28/2017 1:24:29 PM	30918
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.086		mg/Kg	5	3/28/2017 1:24:29 PM	30918
Toluene	ND	0.17		mg/Kg	5	3/28/2017 1:24:29 PM	30918
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 1:24:29 PM	30918
Xylenes, Total	ND	0.35		mg/Kg	5	3/28/2017 1:24:29 PM	30918
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	5	3/28/2017 1:24:29 PM	30918

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-148

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 1:58:00 PM

**Lab ID:** 1703D45-011

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 1:07:08 PM	30936
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/28/2017 10:49:10 AM	A41708
Surr: BFB	96.0	70-130		%Rec	5	3/28/2017 10:49:10 AM	A41708
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	48	9.3		mg/Kg	1	3/28/2017 1:18:37 PM	30930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/28/2017 1:18:37 PM	30930
Surr: DNOP	93.9	70-130		%Rec	1	3/28/2017 1:18:37 PM	30930
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.081		mg/Kg	5	3/28/2017 10:49:10 AM	C41708
Toluene	ND	0.16		mg/Kg	5	3/28/2017 10:49:10 AM	C41708
Ethylbenzene	ND	0.16		mg/Kg	5	3/28/2017 10:49:10 AM	C41708
Xylenes, Total	ND	0.32		mg/Kg	5	3/28/2017 10:49:10 AM	C41708
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	5	3/28/2017 10:49:10 AM	C41708
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	5	3/28/2017 10:49:10 AM	C41708
Surr: Dibromofluoromethane	107	70-130		%Rec	5	3/28/2017 10:49:10 AM	C41708
Surr: Toluene-d8	99.2	70-130		%Rec	5	3/28/2017 10:49:10 AM	C41708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-149

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 2:02:00 PM

**Lab ID:** 1703D45-012

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 1:19:33 PM	30936
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	3/28/2017 11:18:39 AM	A41708
Surr: BFB	95.3	70-130		%Rec	5	3/28/2017 11:18:39 AM	A41708
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	49	10		mg/Kg	1	3/28/2017 12:54:06 PM	30930
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/28/2017 12:54:06 PM	30930
Surr: DNOP	96.7	70-130		%Rec	1	3/28/2017 12:54:06 PM	30930
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.079		mg/Kg	5	3/28/2017 11:18:39 AM	C41708
Toluene	ND	0.16		mg/Kg	5	3/28/2017 11:18:39 AM	C41708
Ethylbenzene	ND	0.16		mg/Kg	5	3/28/2017 11:18:39 AM	C41708
Xylenes, Total	ND	0.32		mg/Kg	5	3/28/2017 11:18:39 AM	C41708
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	5	3/28/2017 11:18:39 AM	C41708
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	5	3/28/2017 11:18:39 AM	C41708
Surr: Dibromofluoromethane	99.0	70-130		%Rec	5	3/28/2017 11:18:39 AM	C41708
Surr: Toluene-d8	97.5	70-130		%Rec	5	3/28/2017 11:18:39 AM	C41708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-150

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 2:07:00 PM

**Lab ID:** 1703D45-013

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 1:31:57 PM	30936
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 11:48:13 AM	A41708
Surr: BFB	98.7	70-130		%Rec	5	3/28/2017 11:48:13 AM	A41708
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	84	10		mg/Kg	1	3/28/2017 12:29:43 PM	30930
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/28/2017 12:29:43 PM	30930
Surr: DNOP	94.9	70-130		%Rec	1	3/28/2017 12:29:43 PM	30930
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.084		mg/Kg	5	3/28/2017 11:48:13 AM	C41708
Toluene	ND	0.17		mg/Kg	5	3/28/2017 11:48:13 AM	C41708
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 11:48:13 AM	C41708
Xylenes, Total	ND	0.34		mg/Kg	5	3/28/2017 11:48:13 AM	C41708
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	5	3/28/2017 11:48:13 AM	C41708
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	3/28/2017 11:48:13 AM	C41708
Surr: Dibromofluoromethane	102	70-130		%Rec	5	3/28/2017 11:48:13 AM	C41708
Surr: Toluene-d8	98.9	70-130		%Rec	5	3/28/2017 11:48:13 AM	C41708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-151

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 2:12:00 PM

**Lab ID:** 1703D45-014

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 1:44:21 PM	30936
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	25	16		mg/Kg	5	3/28/2017 12:17:26 PM	A41708
Surr: BFB	98.3	70-130		%Rec	5	3/28/2017 12:17:26 PM	A41708
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	70	9.4		mg/Kg	1	3/28/2017 12:05:08 PM	30930
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/28/2017 12:05:08 PM	30930
Surr: DNOP	96.6	70-130		%Rec	1	3/28/2017 12:05:08 PM	30930
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.082		mg/Kg	5	3/28/2017 12:17:26 PM	C41708
Toluene	ND	0.16		mg/Kg	5	3/28/2017 12:17:26 PM	C41708
Ethylbenzene	ND	0.16		mg/Kg	5	3/28/2017 12:17:26 PM	C41708
Xylenes, Total	ND	0.33		mg/Kg	5	3/28/2017 12:17:26 PM	C41708
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%Rec	5	3/28/2017 12:17:26 PM	C41708
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	5	3/28/2017 12:17:26 PM	C41708
Surr: Dibromofluoromethane	102	70-130		%Rec	5	3/28/2017 12:17:26 PM	C41708
Surr: Toluene-d8	98.8	70-130		%Rec	5	3/28/2017 12:17:26 PM	C41708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703D45

Date Reported: 3/29/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-152

**Project:** Florance GC J 16A

**Collection Date:** 3/27/2017 2:17:00 PM

**Lab ID:** 1703D45-015

**Matrix:** SOIL

**Received Date:** 3/28/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	3/28/2017 1:56:45 PM	30936
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	3/28/2017 12:46:41 PM	A41708
Surr: BFB	94.6	70-130		%Rec	5	3/28/2017 12:46:41 PM	A41708
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	52	9.9		mg/Kg	1	3/28/2017 11:40:46 AM	30930
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/28/2017 11:40:46 AM	30930
Surr: DNOP	92.0	70-130		%Rec	1	3/28/2017 11:40:46 AM	30930
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>AG</b>
Benzene	ND	0.083		mg/Kg	5	3/28/2017 12:46:41 PM	C41708
Toluene	ND	0.17		mg/Kg	5	3/28/2017 12:46:41 PM	C41708
Ethylbenzene	ND	0.17		mg/Kg	5	3/28/2017 12:46:41 PM	C41708
Xylenes, Total	ND	0.33		mg/Kg	5	3/28/2017 12:46:41 PM	C41708
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	5	3/28/2017 12:46:41 PM	C41708
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	3/28/2017 12:46:41 PM	C41708
Surr: Dibromofluoromethane	101	70-130		%Rec	5	3/28/2017 12:46:41 PM	C41708
Surr: Toluene-d8	97.5	70-130		%Rec	5	3/28/2017 12:46:41 PM	C41708

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30936		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	30936		RunNo:	41707				
Prep Date:	3/28/2017		Analysis Date:	3/28/2017		SeqNo:	1309826		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-30936		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30936		RunNo: 41707					
Prep Date:	3/28/2017		Analysis Date: 3/28/2017		SeqNo: 1309827		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-30930		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30930		RunNo: 41688					
Prep Date:	3/28/2017		Analysis Date: 3/28/2017		SeqNo: 1307965		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.8	116			
Surr: DNOP	4.9		5.000		97.3	70	130			

Sample ID	MB-30930		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30930		RunNo: 41688					
Prep Date:	3/28/2017		Analysis Date: 3/28/2017		SeqNo: 1307966		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		109	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30918		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	30918		RunNo:	41706				
Prep Date:	3/27/2017		Analysis Date:	3/28/2017		SeqNo:	1309059		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	1100		1000		109	54	150				

Sample ID	LCS-30918		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 30918		RunNo: 41706					
Prep Date:	3/27/2017		Analysis Date: 3/28/2017		SeqNo: 1309060		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	76.4	125			
Surr: BFB	960		1000		95.9	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30918		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 30918		RunNo: 41706					
Prep Date:	3/27/2017		Analysis Date: 3/28/2017		SeqNo: 1309081		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		124	66.6	132			

Sample ID	LCS-30918		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 30918		RunNo: 41706					
Prep Date:	3/27/2017		Analysis Date: 3/28/2017		SeqNo: 1309082		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.5	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.2	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	C41708	RunNo:	41708					
Prep Date:		Analysis Date:	3/28/2017	SeqNo:	1309242	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.9	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	C41708	RunNo:	41708					
Prep Date:		Analysis Date:	3/28/2017	SeqNo:	1309243	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	70	130			
Toluene	0.95	0.050	1.000	0	95.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.48		0.5000		96.8	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D45

29-Mar-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	A41708	RunNo:	41708					
Prep Date:		Analysis Date:	3/28/2017	SeqNo:	1309108	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	500		500.0		101	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	A41708	RunNo:	41708					
Prep Date:		Analysis Date:	3/28/2017	SeqNo:	1309109	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	70	130			
Surr: BFB	500		500.0		100	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703D45**

RcptNo: **1**

Received by/date: LM 03/28/17

Logged By: **Anne Thorne** 3/28/2017 7:15:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/28/2017 7:25:32 AM *Anne Thorne*

Reviewed By: *[Signature]* 03/27/17 <sup>8</sup> ENM

### 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.7	Good	Yes			









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

April 03, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1703F36

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/31/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703F36**Date Reported: **4/3/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-153**Project:** Florance GC J 16A**Collection Date:** 3/30/2017 1:24:00 PM**Lab ID:** 1703F36-001**Matrix:** MEOH (SOIL)**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 10:19:27 AM	31010
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	4.3	3.9		mg/Kg	1	3/31/2017 11:06:49 AM	GS41801
Surr: BFB	96.9	70-130		%Rec	1	3/31/2017 11:06:49 AM	GS41801
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	9.8		mg/Kg	1	3/31/2017 9:16:18 AM	31008
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/31/2017 9:16:18 AM	31008
Surr: DNOP	110	70-130		%Rec	1	3/31/2017 9:16:18 AM	31008
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	3/31/2017 11:06:49 AM	SL41801
Toluene	ND	0.039		mg/Kg	1	3/31/2017 11:06:49 AM	SL41801
Ethylbenzene	ND	0.039		mg/Kg	1	3/31/2017 11:06:49 AM	SL41801
Xylenes, Total	ND	0.079		mg/Kg	1	3/31/2017 11:06:49 AM	SL41801
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	3/31/2017 11:06:49 AM	SL41801
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	3/31/2017 11:06:49 AM	SL41801
Surr: Dibromofluoromethane	108	70-130		%Rec	1	3/31/2017 11:06:49 AM	SL41801
Surr: Toluene-d8	104	70-130		%Rec	1	3/31/2017 11:06:49 AM	SL41801

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1703F36**Date Reported: **4/3/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-154**Project:** Florance GC J 16A**Collection Date:** 3/30/2017 1:32:00 PM**Lab ID:** 1703F36-002**Matrix:** MEOH (SOIL)**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 10:31:51 AM	31010
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/31/2017 11:35:49 AM	GS41801
Surr: BFB	98.7	70-130		%Rec	1	3/31/2017 11:35:49 AM	GS41801
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	27	9.5		mg/Kg	1	3/31/2017 9:38:25 AM	31008
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/31/2017 9:38:25 AM	31008
Surr: DNOP	115	70-130		%Rec	1	3/31/2017 9:38:25 AM	31008
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	3/31/2017 11:35:49 AM	SL41801
Toluene	ND	0.035		mg/Kg	1	3/31/2017 11:35:49 AM	SL41801
Ethylbenzene	ND	0.035		mg/Kg	1	3/31/2017 11:35:49 AM	SL41801
Xylenes, Total	ND	0.069		mg/Kg	1	3/31/2017 11:35:49 AM	SL41801
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	3/31/2017 11:35:49 AM	SL41801
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	3/31/2017 11:35:49 AM	SL41801
Surr: Dibromofluoromethane	110	70-130		%Rec	1	3/31/2017 11:35:49 AM	SL41801
Surr: Toluene-d8	101	70-130		%Rec	1	3/31/2017 11:35:49 AM	SL41801

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1703F36

Date Reported: 4/3/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-155

**Project:** Florance GC J 16A

**Collection Date:** 3/30/2017 1:37:00 PM

**Lab ID:** 1703F36-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/31/2017 10:44:15 AM	31010
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	7.4	4.0		mg/Kg	1	3/31/2017 12:04:54 PM	GS41801
Surr: BFB	94.7	70-130		%Rec	1	3/31/2017 12:04:54 PM	GS41801
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	61	9.3		mg/Kg	1	3/31/2017 10:00:42 AM	31008
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/31/2017 10:00:42 AM	31008
Surr: DNOP	115	70-130		%Rec	1	3/31/2017 10:00:42 AM	31008
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.020		mg/Kg	1	3/31/2017 12:04:54 PM	SL41801
Toluene	ND	0.040		mg/Kg	1	3/31/2017 12:04:54 PM	SL41801
Ethylbenzene	ND	0.040		mg/Kg	1	3/31/2017 12:04:54 PM	SL41801
Xylenes, Total	ND	0.080		mg/Kg	1	3/31/2017 12:04:54 PM	SL41801
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	3/31/2017 12:04:54 PM	SL41801
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	3/31/2017 12:04:54 PM	SL41801
Surr: Dibromofluoromethane	112	70-130		%Rec	1	3/31/2017 12:04:54 PM	SL41801
Surr: Toluene-d8	105	70-130		%Rec	1	3/31/2017 12:04:54 PM	SL41801

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31010		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31010		RunNo:	41802				
Prep Date:	3/31/2017		Analysis Date:	3/31/2017		SeqNo:	1313317		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31010		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31010		RunNo: 41802					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1313318		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

**Client:** Blagg Engineering

**Project:** Florance GC J 16A

Sample ID	LCS-30969		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 30969		RunNo: 41755					
Prep Date:	3/29/2017		Analysis Date: 3/30/2017		SeqNo: 1311683		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID	MB-30969		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 30969		RunNo: 41755					
Prep Date:	3/29/2017		Analysis Date: 3/30/2017		SeqNo: 1311684		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	70	130			

Sample ID	LCS-31008		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31008		RunNo: 41755					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1312226		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.7	63.8	116			
Surr: DNOP	4.9		5.000		98.7	70	130			

Sample ID	MB-31008	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31008			RunNo: 41755					
Prep Date:	3/31/2017	Analysis Date: 3/31/2017			SeqNo: 1312227		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Sample ID	1703F36-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-153		Batch ID: 31008		RunNo: 41755					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1312613		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	9.4	46.77	62.32	106	51.6	130			
Surr: DNOP	5.1		4.677		108	70	130			

Sample ID	1703F36-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-153		Batch ID: 31008		RunNo: 41755					
Prep Date:	3/31/2017		Analysis Date: 3/31/2017		SeqNo: 1312614		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	9.4	46.99	62.32	90.0	51.6	130	6.65	20	

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1703F36-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-153	Batch ID:	31008	RunNo:	41755					
Prep Date:	3/31/2017	Analysis Date:	3/31/2017	SeqNo:	1312614	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		4.699		108	70	130	0	0	

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>SL41801</b>		RunNo: <b>41801</b>							
Prep Date:	Analysis Date: <b>3/31/2017</b>		SeqNo: <b>1312813</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.55		0.5000		111	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.0	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>SL41801</b>		RunNo: <b>41801</b>							
Prep Date:	Analysis Date: <b>3/31/2017</b>		SeqNo: <b>1312814</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.58		0.5000		115	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.0	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID <b>1703f36-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>TSP-153</b>	Batch ID: <b>SL41801</b>		RunNo: <b>41801</b>							
Prep Date:	Analysis Date: <b>3/31/2017</b>		SeqNo: <b>1312815</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.020	0.7862	0	118	61.9	146			
Toluene	0.84	0.039	0.7862	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.3931		113	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.3931		98.4	70	130			
Surr: Dibromofluoromethane	0.43		0.3931		110	70	130			
Surr: Toluene-d8	0.42		0.3931		107	70	130			

Sample ID <b>1703f36-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>TSP-153</b>	Batch ID: <b>SL41801</b>		RunNo: <b>41801</b>							
Prep Date:	Analysis Date: <b>3/31/2017</b>		SeqNo: <b>1312816</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.020	0.7862	0	112	61.9	146	5.03	20	
Toluene	0.80	0.039	0.7862	0	102	70	130	4.97	20	

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1703f36-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	TSP-153	Batch ID:	SL41801	RunNo:	41801					
Prep Date:		Analysis Date:	3/31/2017	SeqNo:	1312816	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.3931		110	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.37		0.3931		94.4	70	130	0	0	
Surr: Dibromofluoromethane	0.43		0.3931		109	70	130	0	0	
Surr: Toluene-d8	0.40		0.3931		101	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F36

03-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	GS41801	RunNo:	41801					
Prep Date:		Analysis Date:	3/31/2017	SeqNo:	1313083	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	490		500.0		97.4	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	GS41801	RunNo:	41801					
Prep Date:		Analysis Date:	3/31/2017	SeqNo:	1313084	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130			
Surr: BFB	480		500.0		95.6	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703F36**

RcptNo: **1**

Received By: **Lindsay Mangin**

3/31/2017 6:56:00 AM

Completed By: **Lindsay Mangin**

3/31/2017 7:27:35 AM

Reviewed By:

*AM*

03/31/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			





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

April 05, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1704057

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/4/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704057**Date Reported: **4/5/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-156**Project:** Florance GC J 16A**Collection Date:** 4/3/2017 11:37:00 AM**Lab ID:** 1704057-001**Matrix:** SOIL**Received Date:** 4/4/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/4/2017 10:50:56 AM	31062
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	53	9.6		mg/Kg	1	4/4/2017 9:25:56 AM	31058
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2017 9:25:56 AM	31058
Surr: DNOP	92.8	70-130		%Rec	1	4/4/2017 9:25:56 AM	31058
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	4/4/2017 10:04:52 AM	G41869
Surr: BFB	94.8	54-150		%Rec	5	4/4/2017 10:04:52 AM	G41869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.091		mg/Kg	5	4/4/2017 10:04:52 AM	B41869
Toluene	ND	0.18		mg/Kg	5	4/4/2017 10:04:52 AM	B41869
Ethylbenzene	ND	0.18		mg/Kg	5	4/4/2017 10:04:52 AM	B41869
Xylenes, Total	ND	0.36		mg/Kg	5	4/4/2017 10:04:52 AM	B41869
Surr: 4-Bromofluorobenzene	96.9	66.6-132		%Rec	5	4/4/2017 10:04:52 AM	B41869

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704057**Date Reported: **4/5/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-157**Project:** Florance GC J 16A**Collection Date:** 4/3/2017 11:42:00 AM**Lab ID:** 1704057-002**Matrix:** SOIL**Received Date:** 4/4/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/4/2017 11:03:20 AM	31062
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	48	9.3		mg/Kg	1	4/4/2017 9:50:18 AM	31058
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/4/2017 9:50:18 AM	31058
Surr: DNOP	92.5	70-130		%Rec	1	4/4/2017 9:50:18 AM	31058
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	4/4/2017 10:31:14 AM	G41869
Surr: BFB	94.2	54-150		%Rec	5	4/4/2017 10:31:14 AM	G41869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	4/4/2017 10:31:14 AM	B41869
Toluene	ND	0.18		mg/Kg	5	4/4/2017 10:31:14 AM	B41869
Ethylbenzene	ND	0.18		mg/Kg	5	4/4/2017 10:31:14 AM	B41869
Xylenes, Total	ND	0.36		mg/Kg	5	4/4/2017 10:31:14 AM	B41869
Surr: 4-Bromofluorobenzene	98.2	66.6-132		%Rec	5	4/4/2017 10:31:14 AM	B41869

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704057**

Date Reported: **4/5/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-158

**Project:** Florance GC J 16A

**Collection Date:** 4/3/2017 11:48:00 AM

**Lab ID:** 1704057-003

**Matrix:** SOIL

**Received Date:** 4/4/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/4/2017 11:15:44 AM	31062
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	43	9.8		mg/Kg	1	4/4/2017 10:14:30 AM	31058
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/4/2017 10:14:30 AM	31058
Surr: DNOP	89.5	70-130		%Rec	1	4/4/2017 10:14:30 AM	31058
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	4/4/2017 10:57:39 AM	G41869
Surr: BFB	93.9	54-150		%Rec	5	4/4/2017 10:57:39 AM	G41869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.084		mg/Kg	5	4/4/2017 10:57:39 AM	B41869
Toluene	ND	0.17		mg/Kg	5	4/4/2017 10:57:39 AM	B41869
Ethylbenzene	ND	0.17		mg/Kg	5	4/4/2017 10:57:39 AM	B41869
Xylenes, Total	ND	0.34		mg/Kg	5	4/4/2017 10:57:39 AM	B41869
Surr: 4-Bromofluorobenzene	97.9	66.6-132		%Rec	5	4/4/2017 10:57:39 AM	B41869

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704057**Date Reported: **4/5/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-159**Project:** Florance GC J 16A**Collection Date:** 4/3/2017 11:54:00 AM**Lab ID:** 1704057-004**Matrix:** SOIL**Received Date:** 4/4/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/4/2017 11:28:08 AM	31062
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	64	9.8		mg/Kg	1	4/4/2017 10:38:55 AM	31058
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/4/2017 10:38:55 AM	31058
Surr: DNOP	93.6	70-130		%Rec	1	4/4/2017 10:38:55 AM	31058
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	4/4/2017 11:24:01 AM	G41869
Surr: BFB	96.7	54-150		%Rec	5	4/4/2017 11:24:01 AM	G41869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.093		mg/Kg	5	4/4/2017 11:24:01 AM	B41869
Toluene	ND	0.19		mg/Kg	5	4/4/2017 11:24:01 AM	B41869
Ethylbenzene	ND	0.19		mg/Kg	5	4/4/2017 11:24:01 AM	B41869
Xylenes, Total	ND	0.37		mg/Kg	5	4/4/2017 11:24:01 AM	B41869
Surr: 4-Bromofluorobenzene	94.2	66.6-132		%Rec	5	4/4/2017 11:24:01 AM	B41869

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704057**Date Reported: **4/5/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-160**Project:** Florance GC J 16A**Collection Date:** 4/3/2017 11:59:00 AM**Lab ID:** 1704057-005**Matrix:** SOIL**Received Date:** 4/4/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/4/2017 11:40:32 AM	31062
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	67	10		mg/Kg	1	4/4/2017 11:03:12 AM	31058
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/4/2017 11:03:12 AM	31058
Surr: DNOP	92.6	70-130		%Rec	1	4/4/2017 11:03:12 AM	31058
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	4/4/2017 11:50:22 AM	G41869
Surr: BFB	100	54-150		%Rec	5	4/4/2017 11:50:22 AM	G41869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.088		mg/Kg	5	4/4/2017 11:50:22 AM	B41869
Toluene	ND	0.18		mg/Kg	5	4/4/2017 11:50:22 AM	B41869
Ethylbenzene	ND	0.18		mg/Kg	5	4/4/2017 11:50:22 AM	B41869
Xylenes, Total	ND	0.35		mg/Kg	5	4/4/2017 11:50:22 AM	B41869
Surr: 4-Bromofluorobenzene	98.4	66.6-132		%Rec	5	4/4/2017 11:50:22 AM	B41869

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704057

05-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31062		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31062		RunNo:	41868				
Prep Date:	4/4/2017		Analysis Date:	4/4/2017		SeqNo:	1315672		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31062		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31062		RunNo: 41868					
Prep Date:	4/4/2017		Analysis Date: 4/4/2017		SeqNo: 1315673		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704057

05-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31058		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31058		RunNo: 41862					
Prep Date:	4/4/2017		Analysis Date: 4/4/2017		SeqNo: 1314500		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.0	63.8	116			
Surr: DNOP	3.8		5.000		76.6	70	130			

Sample ID	MB-31058		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31058		RunNo: 41862					
Prep Date:	4/4/2017		Analysis Date: 4/4/2017		SeqNo: 1314501		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		82.1	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704057

05-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41869	RunNo:	41869					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315300	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	860		1000		85.8	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41869	RunNo:	41869					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315301	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	116	76.4	125			
Surr: BFB	1000		1000		101	54	150			

Sample ID	MB-31034	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31034	RunNo:	41869					
Prep Date:	4/3/2017	Analysis Date:	4/4/2017	SeqNo:	1315304	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	690		1000		68.6	54	150			

Sample ID	LCS-31034	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31034	RunNo:	41869					
Prep Date:	4/3/2017	Analysis Date:	4/4/2017	SeqNo:	1315305	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	810		1000		80.9	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704057

05-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B41869	RunNo:	41869					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315328	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B41869	RunNo:	41869					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315329	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.3	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	66.6	132			

Sample ID	MB-31034	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31034	RunNo:	41869					
Prep Date:	4/3/2017	Analysis Date:	4/4/2017	SeqNo:	1315332	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.78		1.000		77.6	66.6	132			

Sample ID	LCS-31034	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31034	RunNo:	41869					
Prep Date:	4/3/2017	Analysis Date:	4/4/2017	SeqNo:	1315333	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.79		1.000		79.0	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1704057

RcptNo: 1

Received By: Anne Thorne

4/4/2017 7:10:00 AM

Completed By: Anne Thorne

4/4/2017 7:19:06 AM

Reviewed By:

04/04/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			







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

April 06, 2017

Jeff Blagg

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199

FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1704117

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/5/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704117

Date Reported: 4/6/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-161

Project: Florance GC J 16A

Collection Date: 4/4/2017 1:20:00 PM

Lab ID: 1704117-001

Matrix: SOIL

Received Date: 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 12:05:38 PM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	16	10		mg/Kg	1	4/5/2017 9:02:42 AM	31083
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/5/2017 9:02:42 AM	31083
Surr: DNOP	84.8	70-130		%Rec	1	4/5/2017 9:02:42 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	6.8		mg/Kg	2	4/5/2017 12:20:26 PM	31074
Surr: BFB	100	54-150		%Rec	2	4/5/2017 12:20:26 PM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.034		mg/Kg	2	4/5/2017 12:20:26 PM	31074
Toluene	ND	0.068		mg/Kg	2	4/5/2017 12:20:26 PM	31074
Ethylbenzene	ND	0.068		mg/Kg	2	4/5/2017 12:20:26 PM	31074
Xylenes, Total	ND	0.14		mg/Kg	2	4/5/2017 12:20:26 PM	31074
Surr: 4-Bromofluorobenzene	98.2	66.6-132		%Rec	2	4/5/2017 12:20:26 PM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704117**Date Reported: **4/6/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-162**Project:** Florance GC J 16A**Collection Date:** 4/4/2017 1:24:00 PM**Lab ID:** 1704117-002**Matrix:** SOIL**Received Date:** 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 12:18:02 PM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	4/5/2017 9:27:01 AM	31083
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2017 9:27:01 AM	31083
Surr: DNOP	87.5	70-130		%Rec	1	4/5/2017 9:27:01 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	6.7		mg/Kg	2	4/5/2017 12:46:50 PM	31074
Surr: BFB	88.9	54-150		%Rec	2	4/5/2017 12:46:50 PM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.034		mg/Kg	2	4/5/2017 12:46:50 PM	31074
Toluene	ND	0.067		mg/Kg	2	4/5/2017 12:46:50 PM	31074
Ethylbenzene	ND	0.067		mg/Kg	2	4/5/2017 12:46:50 PM	31074
Xylenes, Total	ND	0.13		mg/Kg	2	4/5/2017 12:46:50 PM	31074
Surr: 4-Bromofluorobenzene	98.3	66.6-132		%Rec	2	4/5/2017 12:46:50 PM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704117

Date Reported: 4/6/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-163

Project: Florance GC J 16A

Collection Date: 4/4/2017 1:30:00 PM

Lab ID: 1704117-003

Matrix: SOIL

Received Date: 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 12:55:16 PM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	17	9.7		mg/Kg	1	4/5/2017 9:51:11 AM	31083
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2017 9:51:11 AM	31083
Surr: DNOP	84.6	70-130		%Rec	1	4/5/2017 9:51:11 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.2		mg/Kg	2	4/5/2017 1:13:09 PM	31074
Surr: BFB	85.7	54-150		%Rec	2	4/5/2017 1:13:09 PM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.036		mg/Kg	2	4/5/2017 1:13:09 PM	31074
Toluene	ND	0.072		mg/Kg	2	4/5/2017 1:13:09 PM	31074
Ethylbenzene	ND	0.072		mg/Kg	2	4/5/2017 1:13:09 PM	31074
Xylenes, Total	ND	0.14		mg/Kg	2	4/5/2017 1:13:09 PM	31074
Surr: 4-Bromofluorobenzene	91.5	66.6-132		%Rec	2	4/5/2017 1:13:09 PM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704117

Date Reported: 4/6/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-164

Project: Florance GC J 16A

Collection Date: 4/4/2017 1:35:00 PM

Lab ID: 1704117-004

Matrix: SOIL

Received Date: 4/5/2017 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/5/2017 1:07:41 PM	31086
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.4		mg/Kg	1	4/5/2017 10:15:30 AM	31083
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2017 10:15:30 AM	31083
Surr: DNOP	85.0	70-130		%Rec	1	4/5/2017 10:15:30 AM	31083
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	7.3		mg/Kg	2	4/5/2017 1:39:30 PM	31074
Surr: BFB	96.6	54-150		%Rec	2	4/5/2017 1:39:30 PM	31074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.036		mg/Kg	2	4/5/2017 1:39:30 PM	31074
Toluene	ND	0.073		mg/Kg	2	4/5/2017 1:39:30 PM	31074
Ethylbenzene	ND	0.073		mg/Kg	2	4/5/2017 1:39:30 PM	31074
Xylenes, Total	ND	0.15		mg/Kg	2	4/5/2017 1:39:30 PM	31074
Surr: 4-Bromofluorobenzene	94.4	66.6-132		%Rec	2	4/5/2017 1:39:30 PM	31074

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704117

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31086		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31086		RunNo:	41906				
Prep Date:	4/5/2017		Analysis Date:	4/5/2017		SeqNo:	1316637		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31086		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	31086		RunNo:	41906				
Prep Date:	4/5/2017		Analysis Date:	4/5/2017		SeqNo:	1316638		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.6	90	110				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704117

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31083		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31083		RunNo: 41862					
Prep Date:	4/5/2017		Analysis Date: 4/5/2017		SeqNo: 1315434		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.9		10.00		78.6	70	130			

Sample ID	LCS-31083		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31083		RunNo: 41862					
Prep Date:	4/5/2017		Analysis Date: 4/5/2017		SeqNo: 1315523		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	63.8	116			
Surr: DNOP	3.9		5.000		78.4	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704117

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31074		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316562		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	620		1000		62.3	54	150			

Sample ID	LCS-31074		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316563		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	76.4	125			
Surr: BFB	760		1000		76.0	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704117

06-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31074		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316571		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.71		1.000		71.2	66.6	132			

Sample ID	LCS-31074		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 31074		RunNo: 41907					
Prep Date:	4/4/2017		Analysis Date: 4/5/2017		SeqNo: 1316572		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.69		1.000		68.6	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704117**

ReptNo: **1**

Received By: **Lindsay Mangin** **4/5/2017 6:45:00 AM**

Completed By: **Lindsay Mangin** **4/5/2017 7:03:09 AM**

Reviewed By: **IO** **4/5/17**

*Lindsay Mangin*

*Lindsay Mangin*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			





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

April 11, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704262

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/7/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704262**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-165**Project:** Florance GC J 16A**Collection Date:** 4/6/2017 1:29:00 PM**Lab ID:** 1704262-001**Matrix:** MEOH (SOIL)**Received Date:** 4/7/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/7/2017 11:50:41 AM	31127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	28	9.8		mg/Kg	1	4/7/2017 9:23:02 AM	31126
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/7/2017 9:23:02 AM	31126
Surr: DNOP	84.9	70-130		%Rec	1	4/7/2017 9:23:02 AM	31126
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/7/2017 9:51:56 AM	G41966
Surr: BFB	109	54-150		%Rec	1	4/7/2017 9:51:56 AM	G41966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/7/2017 9:51:56 AM	B41966
Toluene	ND	0.034		mg/Kg	1	4/7/2017 9:51:56 AM	B41966
Ethylbenzene	ND	0.034		mg/Kg	1	4/7/2017 9:51:56 AM	B41966
Xylenes, Total	ND	0.068		mg/Kg	1	4/7/2017 9:51:56 AM	B41966
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	4/7/2017 9:51:56 AM	B41966

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704262**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-166**Project:** Florance GC J 16A**Collection Date:** 4/6/2017 1:35:00 PM**Lab ID:** 1704262-002**Matrix:** MEOH (SOIL)**Received Date:** 4/7/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/7/2017 12:03:05 PM	31127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	30	9.5		mg/Kg	1	4/7/2017 9:47:24 AM	31126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/7/2017 9:47:24 AM	31126
Surr: DNOP	89.9	70-130		%Rec	1	4/7/2017 9:47:24 AM	31126
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/7/2017 10:15:31 AM	G41966
Surr: BFB	119	54-150		%Rec	1	4/7/2017 10:15:31 AM	G41966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/7/2017 10:15:31 AM	B41966
Toluene	ND	0.035		mg/Kg	1	4/7/2017 10:15:31 AM	B41966
Ethylbenzene	ND	0.035		mg/Kg	1	4/7/2017 10:15:31 AM	B41966
Xylenes, Total	ND	0.069		mg/Kg	1	4/7/2017 10:15:31 AM	B41966
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	4/7/2017 10:15:31 AM	B41966

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704262**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-167**Project:** Florance GC J 16A**Collection Date:** 4/6/2017 1:42:00 PM**Lab ID:** 1704262-003**Matrix:** MEOH (SOIL)**Received Date:** 4/7/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/7/2017 12:15:30 PM	31127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	34	9.3		mg/Kg	1	4/7/2017 10:11:38 AM	31126
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/7/2017 10:11:38 AM	31126
Surr: DNOP	86.6	70-130		%Rec	1	4/7/2017 10:11:38 AM	31126
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/7/2017 10:39:01 AM	G41966
Surr: BFB	113	54-150		%Rec	1	4/7/2017 10:39:01 AM	G41966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/7/2017 10:39:01 AM	B41966
Toluene	ND	0.035		mg/Kg	1	4/7/2017 10:39:01 AM	B41966
Ethylbenzene	ND	0.035		mg/Kg	1	4/7/2017 10:39:01 AM	B41966
Xylenes, Total	ND	0.070		mg/Kg	1	4/7/2017 10:39:01 AM	B41966
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	4/7/2017 10:39:01 AM	B41966

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704262**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-168**Project:** Florance GC J 16A**Collection Date:** 4/6/2017 1:49:00 PM**Lab ID:** 1704262-004**Matrix:** MEOH (SOIL)**Received Date:** 4/7/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/7/2017 12:27:55 PM	31127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	26	10		mg/Kg	1	4/7/2017 10:36:42 AM	31126
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2017 10:36:42 AM	31126
Surr: DNOP	83.7	70-130		%Rec	1	4/7/2017 10:36:42 AM	31126
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	4/7/2017 11:02:36 AM	G41966
Surr: BFB	122	54-150		%Rec	1	4/7/2017 11:02:36 AM	G41966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	4/7/2017 11:02:36 AM	B41966
Toluene	ND	0.032		mg/Kg	1	4/7/2017 11:02:36 AM	B41966
Ethylbenzene	ND	0.032		mg/Kg	1	4/7/2017 11:02:36 AM	B41966
Xylenes, Total	ND	0.064		mg/Kg	1	4/7/2017 11:02:36 AM	B41966
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	4/7/2017 11:02:36 AM	B41966

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704262**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-169**Project:** Florance GC J 16A**Collection Date:** 4/6/2017 1:58:00 PM**Lab ID:** 1704262-005**Matrix:** MEOH (SOIL)**Received Date:** 4/7/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/7/2017 12:40:19 PM	31127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	35	9.5		mg/Kg	1	4/7/2017 11:01:08 AM	31126
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/7/2017 11:01:08 AM	31126
Surr: DNOP	86.8	70-130		%Rec	1	4/7/2017 11:01:08 AM	31126
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/7/2017 11:26:10 AM	G41966
Surr: BFB	119	54-150		%Rec	1	4/7/2017 11:26:10 AM	G41966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/7/2017 11:26:10 AM	B41966
Toluene	ND	0.036		mg/Kg	1	4/7/2017 11:26:10 AM	B41966
Ethylbenzene	ND	0.036		mg/Kg	1	4/7/2017 11:26:10 AM	B41966
Xylenes, Total	ND	0.072		mg/Kg	1	4/7/2017 11:26:10 AM	B41966
Surr: 4-Bromofluorobenzene	115	66.6-132		%Rec	1	4/7/2017 11:26:10 AM	B41966

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704262

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31127		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31127		RunNo:	41969				
Prep Date:	4/7/2017		Analysis Date:	4/7/2017		SeqNo:	1318741		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31127		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31127		RunNo: 41969					
Prep Date:	4/7/2017		Analysis Date: 4/7/2017		SeqNo: 1318742		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704262

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31126		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31126		RunNo: 41951					
Prep Date:	4/7/2017		Analysis Date: 4/7/2017		SeqNo: 1317310		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.0	63.8	116			
Surr: DNOP	3.8		5.000		75.4	70	130			

Sample ID	MB-31126	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31126			RunNo: 41951					
Prep Date:	4/7/2017	Analysis Date: 4/7/2017			SeqNo: 1317311		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		84.3	70	130			

Sample ID	1704262-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	TSP-165		Batch ID: 31126		RunNo: 41951					
Prep Date:	4/7/2017		Analysis Date: 4/7/2017		SeqNo: 1317878		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	10	49.95	28.05	78.8	51.6	130			
Surr: DNOP	3.9		4.995		78.0	70	130			

Sample ID	1704262-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	TSP-165		Batch ID:	31126		RunNo:	41951				
Prep Date:	4/7/2017		Analysis Date:	4/7/2017		SeqNo:	1317879		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	68	9.4	47.17	28.05	84.7	51.6	130	0.839	20		
Surr: DNOP	3.8		4.717		81.4	70	130	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704262

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41966	RunNo:	41966					
Prep Date:		Analysis Date:	4/7/2017	SeqNo:	1318317	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	890		1000		89.0	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41966	RunNo:	41966					
Prep Date:		Analysis Date:	4/7/2017	SeqNo:	1318318	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	97.5	76.4	125			
Surr: BFB	950		1000		94.8	54	150			

Sample ID	1704262-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-165	Batch ID:	G41966	RunNo:	42001					
Prep Date:		Analysis Date:	4/10/2017	SeqNo:	1319433	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.4	16.90	1.143	99.8	61.3	150			
Surr: BFB	800		676.1		119	54	150			

Sample ID	1704262-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-165	Batch ID:	G41966	RunNo:	42001					
Prep Date:		Analysis Date:	4/10/2017	SeqNo:	1319434	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.4	16.90	1.143	99.6	61.3	150	0.263	20	
Surr: BFB	800		676.1		119	54	150	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704262

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B41966</b>		RunNo: <b>41966</b>							
Prep Date:	Analysis Date: <b>4/7/2017</b>		SeqNo: <b>1318342</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B41966</b>		RunNo: <b>41966</b>							
Prep Date:	Analysis Date: <b>4/7/2017</b>		SeqNo: <b>1318343</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	66.6	132			

Sample ID <b>1704262-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-166</b>	Batch ID: <b>B41966</b>		RunNo: <b>42001</b>							
Prep Date:	Analysis Date: <b>4/10/2017</b>		SeqNo: <b>1319452</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.017	0.6935	0	115	61.5	138			
Toluene	0.75	0.035	0.6935	0.007219	107	71.4	127			
Ethylbenzene	0.75	0.035	0.6935	0.01062	106	70.9	132			
Xylenes, Total	2.1	0.069	2.080	0.02402	98.8	76.2	123			
Surr: 4-Bromofluorobenzene	0.84		0.6935		121	66.6	132			

Sample ID <b>1704262-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>TSP-166</b>	Batch ID: <b>B41966</b>		RunNo: <b>42001</b>							
Prep Date:	Analysis Date: <b>4/10/2017</b>		SeqNo: <b>1319453</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.017	0.6935	0	113	61.5	138	1.06	20	
Toluene	0.73	0.035	0.6935	0.007219	104	71.4	127	3.46	20	
Ethylbenzene	0.73	0.035	0.6935	0.01062	103	70.9	132	2.85	20	
Xylenes, Total	2.0	0.069	2.080	0.02402	95.2	76.2	123	3.68	20	
Surr: 4-Bromofluorobenzene	0.82		0.6935		118	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704262**

RcptNo: **1**

Received By: **Lindsay Mangin** 4/7/2017 7:00:00 AM

Completed By: **Lindsay Mangin** 4/7/2017 7:28:30 AM

Reviewed By: *aj* 04/07/17

*Lindsay Mangin*
*Lindsay Mangin*

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒ # of preserved bottles checked for pH:  ( $<2$  or  $>12$  unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐ Adjusted? ☐
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 ☐ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			







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

April 11, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704319

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/8/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704319

Date Reported: 4/11/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-170

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 11:33:00 AM

**Lab ID:** 1704319-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 12:19:04 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	31	9.4		mg/Kg	1	4/10/2017 10:23:52 AM	31151
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/10/2017 10:23:52 AM	31151
Surr: DNOP	87.2	70-130		%Rec	1	4/10/2017 10:23:52 AM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/10/2017 10:11:36 AM	31130
Surr: BFB	112	54-150		%Rec	1	4/10/2017 10:11:36 AM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/10/2017 10:11:36 AM	31130
Toluene	ND	0.036		mg/Kg	1	4/10/2017 10:11:36 AM	31130
Ethylbenzene	ND	0.036		mg/Kg	1	4/10/2017 10:11:36 AM	31130
Xylenes, Total	ND	0.072		mg/Kg	1	4/10/2017 10:11:36 AM	31130
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	4/10/2017 10:11:36 AM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**

Date Reported: **4/11/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-171

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 11:37:00 AM

**Lab ID:** 1704319-002

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 12:31:28 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	32	9.8		mg/Kg	1	4/10/2017 10:51:32 AM	31151
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/10/2017 10:51:32 AM	31151
Surr: DNOP	87.2	70-130		%Rec	1	4/10/2017 10:51:32 AM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/10/2017 10:35:07 AM	31130
Surr: BFB	115	54-150		%Rec	1	4/10/2017 10:35:07 AM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/10/2017 10:35:07 AM	31130
Toluene	ND	0.035		mg/Kg	1	4/10/2017 10:35:07 AM	31130
Ethylbenzene	ND	0.035		mg/Kg	1	4/10/2017 10:35:07 AM	31130
Xylenes, Total	ND	0.071		mg/Kg	1	4/10/2017 10:35:07 AM	31130
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	4/10/2017 10:35:07 AM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**Date Reported: **4/11/2017****CLIENT:** Blagg Engineering**Client Sample ID:** TSP-172**Project:** Florance GC J 16A**Collection Date:** 4/7/2017 11:45:00 AM**Lab ID:** 1704319-003**Matrix:** MEOH (SOIL)**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 12:43:52 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	41	9.7		mg/Kg	1	4/10/2017 11:19:02 AM	31151
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/10/2017 11:19:02 AM	31151
Surr: DNOP	89.9	70-130		%Rec	1	4/10/2017 11:19:02 AM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/10/2017 10:58:38 AM	31130
Surr: BFB	113	54-150		%Rec	1	4/10/2017 10:58:38 AM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/10/2017 10:58:38 AM	31130
Toluene	ND	0.037		mg/Kg	1	4/10/2017 10:58:38 AM	31130
Ethylbenzene	ND	0.037		mg/Kg	1	4/10/2017 10:58:38 AM	31130
Xylenes, Total	ND	0.075		mg/Kg	1	4/10/2017 10:58:38 AM	31130
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	4/10/2017 10:58:38 AM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**

Date Reported: **4/11/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-173

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 11:51:00 AM

**Lab ID:** 1704319-004

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 12:56:16 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	46	9.9		mg/Kg	1	4/10/2017 11:46:46 AM	31151
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/10/2017 11:46:46 AM	31151
Surr: DNOP	90.2	70-130		%Rec	1	4/10/2017 11:46:46 AM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/10/2017 11:22:04 AM	31130
Surr: BFB	114	54-150		%Rec	1	4/10/2017 11:22:04 AM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/10/2017 11:22:04 AM	31130
Toluene	ND	0.038		mg/Kg	1	4/10/2017 11:22:04 AM	31130
Ethylbenzene	ND	0.038		mg/Kg	1	4/10/2017 11:22:04 AM	31130
Xylenes, Total	ND	0.077		mg/Kg	1	4/10/2017 11:22:04 AM	31130
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	4/10/2017 11:22:04 AM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**

Date Reported: **4/11/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-174

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 12:00:00 PM

**Lab ID:** 1704319-005

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 1:08:41 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	41	9.8		mg/Kg	1	4/10/2017 12:14:46 PM	31151
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/10/2017 12:14:46 PM	31151
Surr: DNOP	90.2	70-130		%Rec	1	4/10/2017 12:14:46 PM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5.5	3.4		mg/Kg	1	4/10/2017 11:45:29 AM	31130
Surr: BFB	142	54-150		%Rec	1	4/10/2017 11:45:29 AM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/10/2017 11:45:29 AM	31130
Toluene	ND	0.034		mg/Kg	1	4/10/2017 11:45:29 AM	31130
Ethylbenzene	ND	0.034		mg/Kg	1	4/10/2017 11:45:29 AM	31130
Xylenes, Total	ND	0.068		mg/Kg	1	4/10/2017 11:45:29 AM	31130
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	4/10/2017 11:45:29 AM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**

Date Reported: **4/11/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-175

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 12:06:00 PM

**Lab ID:** 1704319-006

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 1:21:06 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	46	9.4		mg/Kg	1	4/10/2017 12:42:44 PM	31151
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/10/2017 12:42:44 PM	31151
Surr: DNOP	92.5	70-130		%Rec	1	4/10/2017 12:42:44 PM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/10/2017 12:08:52 PM	31130
Surr: BFB	126	54-150		%Rec	1	4/10/2017 12:08:52 PM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/10/2017 12:08:52 PM	31130
Toluene	ND	0.036		mg/Kg	1	4/10/2017 12:08:52 PM	31130
Ethylbenzene	ND	0.036		mg/Kg	1	4/10/2017 12:08:52 PM	31130
Xylenes, Total	ND	0.073		mg/Kg	1	4/10/2017 12:08:52 PM	31130
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	4/10/2017 12:08:52 PM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704319

Date Reported: 4/11/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-176

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 12:11:00 PM

**Lab ID:** 1704319-007

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 1:33:30 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	38	9.8		mg/Kg	1	4/10/2017 1:10:34 PM	31151
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/10/2017 1:10:34 PM	31151
Surr: DNOP	91.2	70-130		%Rec	1	4/10/2017 1:10:34 PM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/10/2017 12:32:16 PM	31130
Surr: BFB	114	54-150		%Rec	1	4/10/2017 12:32:16 PM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/10/2017 12:32:16 PM	31130
Toluene	ND	0.037		mg/Kg	1	4/10/2017 12:32:16 PM	31130
Ethylbenzene	ND	0.037		mg/Kg	1	4/10/2017 12:32:16 PM	31130
Xylenes, Total	ND	0.075		mg/Kg	1	4/10/2017 12:32:16 PM	31130
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	4/10/2017 12:32:16 PM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704319**

Date Reported: **4/11/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-177

**Project:** Florance GC J 16A

**Collection Date:** 4/7/2017 12:16:00 PM

**Lab ID:** 1704319-008

**Matrix:** MEOH (SOIL)

**Received Date:** 4/8/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/10/2017 1:45:55 PM	31158
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	27	9.2		mg/Kg	1	4/10/2017 1:38:24 PM	31151
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/10/2017 1:38:24 PM	31151
Surr: DNOP	92.4	70-130		%Rec	1	4/10/2017 1:38:24 PM	31151
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/10/2017 12:55:41 PM	31130
Surr: BFB	113	54-150		%Rec	1	4/10/2017 12:55:41 PM	31130
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/10/2017 12:55:41 PM	31130
Toluene	ND	0.037		mg/Kg	1	4/10/2017 12:55:41 PM	31130
Ethylbenzene	ND	0.037		mg/Kg	1	4/10/2017 12:55:41 PM	31130
Xylenes, Total	ND	0.075		mg/Kg	1	4/10/2017 12:55:41 PM	31130
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	4/10/2017 12:55:41 PM	31130

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704319

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31158		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31158		RunNo:	42002				
Prep Date:	4/10/2017		Analysis Date:	4/10/2017		SeqNo:	1319678		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31158		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31158		RunNo: 42002					
Prep Date:	4/10/2017		Analysis Date: 4/10/2017		SeqNo: 1319679		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704319

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31128		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31128		RunNo: 41990					
Prep Date:	4/7/2017		Analysis Date: 4/10/2017		SeqNo: 1318833		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		110	70	130			

Sample ID	MB-31151	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31151			RunNo: 41990					
Prep Date:	4/10/2017	Analysis Date: 4/10/2017			SeqNo: 1318834		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-31128			SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	31128		RunNo:	41990			
Prep Date:	4/7/2017			Analysis Date:	4/10/2017		SeqNo:	1318835		Units:	%Rec
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	5.0		5.000		99.7	70	130				

Sample ID	LCS-31151		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31151		RunNo: 41990					
Prep Date:	4/10/2017		Analysis Date: 4/10/2017		SeqNo: 1318836		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	63.8	116			
Surr: DNOP	4.9		5.000		97.1	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704319

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31130		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31130		RunNo: 42001					
Prep Date:	4/7/2017		Analysis Date: 4/10/2017		SeqNo: 1319435		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	880		1000		88.2	54	150			

Sample ID	LCS-31130		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31130		RunNo: 42001					
Prep Date:	4/7/2017		Analysis Date: 4/10/2017		SeqNo: 1319436		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	76.4	125			
Surr: BFB	970		1000		96.8	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704319

11-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31130		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 31130		RunNo: 42001					
Prep Date:	4/7/2017		Analysis Date: 4/10/2017		SeqNo: 1319454		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Sample ID	LCS-31130		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 31130		RunNo: 42001					
Prep Date:	4/7/2017		Analysis Date: 4/10/2017		SeqNo: 1319455		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	118	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704319**

RcptNo: 1

Received By: **Lindsay Mangin**

4/8/2017 8:35:00 AM

*Lindsay Mangin*

Completed By: **Lindsay Mangin**

4/8/2017 9:18:30 AM

*Lindsay Mangin*

Reviewed By:

*[Signature]*

04/08/17

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	
Client Instructions:	

17. Additional remarks:

## 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			





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

April 24, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704959

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/21/2017 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](http://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 qualifiers 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704959**

Date Reported: **4/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-178

**Project:** Florance GC J 16A

**Collection Date:** 4/20/2017 1:20:00 PM

**Lab ID:** 1704959-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/21/2017 10:59:56 AM	31367
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	17	9.5		mg/Kg	1	4/21/2017 9:15:49 AM	31359
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/21/2017 9:15:49 AM	31359
Surr: DNOP	112	70-130		%Rec	1	4/21/2017 9:15:49 AM	31359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/21/2017 10:27:11 AM	SG42287
Surr: BFB	138	54-150		%Rec	1	4/21/2017 10:27:11 AM	SG42287
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/21/2017 10:27:11 AM	B42287
Toluene	ND	0.037		mg/Kg	1	4/21/2017 10:27:11 AM	B42287
Ethylbenzene	ND	0.037		mg/Kg	1	4/21/2017 10:27:11 AM	B42287
Xylenes, Total	ND	0.075		mg/Kg	1	4/21/2017 10:27:11 AM	B42287
Surr: 4-Bromofluorobenzene	123	66.6-132		%Rec	1	4/21/2017 10:27:11 AM	B42287

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704959**

Date Reported: **4/24/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-179

**Project:** Florance GC J 16A

**Collection Date:** 4/20/2017 1:25:00 PM

**Lab ID:** 1704959-002

**Matrix:** MEOH (SOIL)

**Received Date:** 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/21/2017 11:12:20 AM	31367
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.6		mg/Kg	1	4/21/2017 9:37:37 AM	31359
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/21/2017 9:37:37 AM	31359
Surr: DNOP	109	70-130		%Rec	1	4/21/2017 9:37:37 AM	31359
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/21/2017 10:51:18 AM	SG42287
Surr: BFB	114	54-150		%Rec	1	4/21/2017 10:51:18 AM	SG42287
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/21/2017 10:51:18 AM	B42287
Toluene	ND	0.038		mg/Kg	1	4/21/2017 10:51:18 AM	B42287
Ethylbenzene	ND	0.038		mg/Kg	1	4/21/2017 10:51:18 AM	B42287
Xylenes, Total	ND	0.076		mg/Kg	1	4/21/2017 10:51:18 AM	B42287
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	4/21/2017 10:51:18 AM	B42287

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704959

24-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31367		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31367		RunNo:	42281				
Prep Date:	4/21/2017		Analysis Date:	4/21/2017		SeqNo:	1329936		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31367		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31367		RunNo: 42281					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1329937		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704959

24-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31359		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31359		RunNo: 42271					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1328164		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	95.8	63.8	116			
Surr: DNOP	4.7		5.000		93.5	70	130			

Sample ID	MB-31359	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31359			RunNo: 42271					
Prep Date:	4/21/2017	Analysis Date: 4/21/2017			SeqNo: 1328165		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID	MB-31360		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31360		RunNo: 42274					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1328407		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.0	70	130			

Sample ID	LCS-31360		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31360		RunNo: 42274					
Prep Date:	4/21/2017		Analysis Date: 4/21/2017		SeqNo: 1328408		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.6	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704959

24-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	SG42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329608	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	940		1000		93.9	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	SG42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329609	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	88.6	76.4	125			
Surr: BFB	1100		1000		106	54	150			

Sample ID	1704959-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-178	Batch ID:	SG42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329610	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.7	18.71	0	101	61.3	150			
Surr: BFB	1100		748.5		151	54	150			S

Sample ID	1704959-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-178	Batch ID:	SG42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329611	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.7	18.71	0	98.5	61.3	150	2.25	20	
Surr: BFB	1100		748.5		151	54	150	0	0	S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704959

24-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329623	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329624	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.5	80	120			
Toluene	0.92	0.050	1.000	0	91.6	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.3	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	66.6	132			

Sample ID	1704959-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-179	Batch ID:	B42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329625	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7559	0	93.0	61.5	138			
Toluene	0.72	0.038	0.7559	0	95.0	71.4	127			
Ethylbenzene	0.72	0.038	0.7559	0.006501	94.1	70.9	132			
Xylenes, Total	2.2	0.076	2.268	0	96.4	76.2	123			
Surr: 4-Bromofluorobenzene	0.87		0.7559		115	66.6	132			

Sample ID	1704959-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-179	Batch ID:	B42287	RunNo:	42287					
Prep Date:		Analysis Date:	4/21/2017	SeqNo:	1329626	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.019	0.7559	0	89.7	61.5	138	3.58	20	
Toluene	0.69	0.038	0.7559	0	91.7	71.4	127	3.48	20	
Ethylbenzene	0.70	0.038	0.7559	0.006501	92.0	70.9	132	2.32	20	
Xylenes, Total	2.1	0.076	2.268	0	94.0	76.2	123	2.47	20	
Surr: 4-Bromofluorobenzene	0.80		0.7559		106	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704959**

RcptNo: **1**

Received By: **Lindsay Mangin** 4/21/2017 7:38:00 AM

Completed By: **Lindsay Mangin** 4/21/2017 7:44:06 AM

Reviewed By:

*IO*

*4/21/17*

*Lindsay Mangin*

*Lindsay Mangin*

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

### 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			

[illegible]

Turn-Around Time: SAME

Client: 20 A 20 20

Project Name: FINANCE FOR IGA

Mailing Address: Blade Engineering 17

Project #: TREATED SOIL PILES

Phone #: 502 370-1193

Project Manager: T. R. ...

email or Fax#:
QA/QC Package

Sampler: J. Blab

<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)
Accreditation	
<input type="checkbox"/> NEI AP	<input type="checkbox"/> Other

Sample Temperature	13
--------------------	----

<input type="checkbox"/> EDD (Type)				
-------------------------------------	--	--	--	--

Container Type and #	Preservative Type	HEAL 170249
-------------------------	----------------------	----------------

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

$f_{\text{cut}} x$	$\text{cut}$	$-E$
$=$	$=$	$0$

11	5285	15	TSP-179
20/2017	1320	5016	TSP-178









Received by	1	Date

Date:	Time:	Relinquished by:

Received by: W. J. Balks Date: 7/24/17

Date:	4/20/17	Time:	1652	Relinquished by:	Jeff B. Shroy
-------	---------	-------	------	------------------	---------------

Contracted to other accredited laboratories. This serves as

47247 1986 / NT-2000

**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

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

## Analysis Request

Remarks:	Bill BP	CONTACT: STEVE NOSTRAK
BTX + MTBE + TMB-E (8021)	X	
BTX + MTBE + TPH (Gas only)	X	
TPH 8015B (GRO / DRO / MRO)	X	
TPH (Method 418.1)		
EDB (Method 504.1)		
PAH's (8310 or 8270 SIMS)		
RCRA 8 Metals		
Anions (F <sup>-</sup> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , SO <sub>4</sub> <sup>2-</sup> )		
8081 Pesticides / 8082 PCB's		
8260B (VOA)		
8270 (Semi-VOA)	X	
CHLORIDE	X	

VIB: VILXON EURM  
 WBS EVENT: LI-0018N-E: FLENC GCT 16A  
 SAMPLES TREATED WITH H<sub>2</sub>O<sub>2</sub>

liability. Any sub-contracted date will be clearly notated on the analytical report.





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

April 25, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: FLORANCE GC J 16A

OrderNo.: 1704A20

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/22/2017 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](http://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 qualifiers 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704A20**

Date Reported: **4/25/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-180

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/21/2017 8:52:00 AM

**Lab ID:** 1704A20-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/24/2017 11:04:58 AM	31386
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	30	9.5		mg/Kg	1	4/24/2017 9:50:18 AM	31382
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/24/2017 9:50:18 AM	31382
Surr: DNOP	85.0	70-130		%Rec	1	4/24/2017 9:50:18 AM	31382
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/24/2017 12:15:01 PM	SG42322
Surr: BFB	111	54-150		%Rec	1	4/24/2017 12:15:01 PM	SG42322
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/24/2017 12:15:01 PM	B42322
Toluene	ND	0.034		mg/Kg	1	4/24/2017 12:15:01 PM	B42322
Ethylbenzene	ND	0.034		mg/Kg	1	4/24/2017 12:15:01 PM	B42322
Xylenes, Total	ND	0.068		mg/Kg	1	4/24/2017 12:15:01 PM	B42322
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	4/24/2017 12:15:01 PM	B42322

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704A20

Date Reported: 4/25/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP-181

Project: FLORANCE GC J 16A

Collection Date: 4/21/2017 9:01:00 AM

Lab ID: 1704A20-002

Matrix: MEOH (SOIL)

Received Date: 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/24/2017 11:17:23 AM	31386
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	4/24/2017 10:17:52 AM	31382
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/24/2017 10:17:52 AM	31382
Surr: DNOP	85.1	70-130		%Rec	1	4/24/2017 10:17:52 AM	31382
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/24/2017 12:39:03 PM	SG42322
Surr: BFB	111	54-150		%Rec	1	4/24/2017 12:39:03 PM	SG42322
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	4/24/2017 12:39:03 PM	B42322
Toluene	ND	0.038		mg/Kg	1	4/24/2017 12:39:03 PM	B42322
Ethylbenzene	ND	0.038		mg/Kg	1	4/24/2017 12:39:03 PM	B42322
Xylenes, Total	ND	0.076		mg/Kg	1	4/24/2017 12:39:03 PM	B42322
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/24/2017 12:39:03 PM	B42322

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704A20**

Date Reported: **4/25/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-182

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/21/2017 9:10:00 AM

**Lab ID:** 1704A20-003

**Matrix:** MEOH (SOIL)

**Received Date:** 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/24/2017 11:29:48 AM	31386
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/24/2017 10:45:44 AM	31382
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/24/2017 10:45:44 AM	31382
Surr: DNOP	84.3	70-130		%Rec	1	4/24/2017 10:45:44 AM	31382
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	4/24/2017 1:03:07 PM	SG42322
Surr: BFB	106	54-150		%Rec	1	4/24/2017 1:03:07 PM	SG42322
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.014		mg/Kg	1	4/24/2017 1:03:07 PM	B42322
Toluene	ND	0.028		mg/Kg	1	4/24/2017 1:03:07 PM	B42322
Ethylbenzene	ND	0.028		mg/Kg	1	4/24/2017 1:03:07 PM	B42322
Xylenes, Total	ND	0.056		mg/Kg	1	4/24/2017 1:03:07 PM	B42322
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/24/2017 1:03:07 PM	B42322

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A20

25-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-31386		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31386		RunNo:	42317				
Prep Date:	4/24/2017		Analysis Date:	4/24/2017		SeqNo:	1330756		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31386		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31386		RunNo: 42317					
Prep Date:	4/24/2017		Analysis Date: 4/24/2017		SeqNo: 1330757		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	90	110			

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A20

25-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>LCS-31382</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>31382</b>			RunNo: <b>42310</b>						
Prep Date: <b>4/24/2017</b>	Analysis Date: <b>4/24/2017</b>			SeqNo: <b>1329720</b>	Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.9	63.8	116			
Surr: DNOP	4.8		5.000		96.8	70	130			

Sample ID <b>MB-31382</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>31382</b>			RunNo: <b>42310</b>						
Prep Date: <b>4/24/2017</b>	Analysis Date: <b>4/24/2017</b>			SeqNo: <b>1329721</b>	Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A20

25-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>SG42322</b>			RunNo: <b>42322</b>						
Prep Date:	Analysis Date: <b>4/24/2017</b>			SeqNo: <b>1330420</b>		Units: <b>mg/Kg</b>				
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	54	150			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>SG42322</b>			RunNo: <b>42322</b>						
Prep Date:	Analysis Date: <b>4/24/2017</b>			SeqNo: <b>1330421</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.7	76.4	125			
Surr: BFB	1100		1000		111	54	150			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A20

25-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B42322</b>		RunNo: <b>42322</b>							
Prep Date:	Analysis Date: <b>4/24/2017</b>		SeqNo: <b>1330439</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B42322</b>		RunNo: <b>42322</b>							
Prep Date:	Analysis Date: <b>4/24/2017</b>		SeqNo: <b>1330440</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.7	80	120			
Toluene	0.94	0.050	1.000	0	93.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	66.6	132			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified





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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1704A20

RcptNo: 1

Received By: Lindsay Mangin 4/22/2017 10:00:00 AM

Completed By: Lindsay Mangin 4/22/2017 12:12:14 PM

Reviewed By: AT 04/24/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:   
 ( $<2$  or  $>12$  unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			





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

April 26, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1704A79

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/25/2017 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](http://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 qualifiers 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704A79**

Date Reported: **4/26/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-183

**Project:** Florance GC J 16A

**Collection Date:** 4/24/2017 9:47:00 AM

**Lab ID:** 1704A79-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/25/2017 11:24:30 AM	31409
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	19	9.3		mg/Kg	1	4/25/2017 10:10:36 AM	31408
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/25/2017 10:10:36 AM	31408
Surr: DNOP	102	70-130		%Rec	1	4/25/2017 10:10:36 AM	31408
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/25/2017 10:52:44 AM	G42346
Surr: BFB	113	54-150		%Rec	1	4/25/2017 10:52:44 AM	G42346
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/25/2017 10:52:44 AM	B42346
Toluene	ND	0.034		mg/Kg	1	4/25/2017 10:52:44 AM	B42346
Ethylbenzene	ND	0.034		mg/Kg	1	4/25/2017 10:52:44 AM	B42346
Xylenes, Total	ND	0.068		mg/Kg	1	4/25/2017 10:52:44 AM	B42346
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	4/25/2017 10:52:44 AM	B42346

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704A79**

Date Reported: **4/26/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-184

**Project:** Florance GC J 16A

**Collection Date:** 4/24/2017 9:51:00 AM

**Lab ID:** 1704A79-002

**Matrix:** MEOH (SOIL)

**Received Date:** 4/25/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/25/2017 11:36:55 AM	31409
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	4/25/2017 10:32:30 AM	31408
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/25/2017 10:32:30 AM	31408
Surr: DNOP	102	70-130		%Rec	1	4/25/2017 10:32:30 AM	31408
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/25/2017 11:16:54 AM	G42346
Surr: BFB	111	54-150		%Rec	1	4/25/2017 11:16:54 AM	G42346
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/25/2017 11:16:54 AM	B42346
Toluene	ND	0.035		mg/Kg	1	4/25/2017 11:16:54 AM	B42346
Ethylbenzene	ND	0.035		mg/Kg	1	4/25/2017 11:16:54 AM	B42346
Xylenes, Total	ND	0.069		mg/Kg	1	4/25/2017 11:16:54 AM	B42346
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	4/25/2017 11:16:54 AM	B42346

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A79

26-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31409		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 31409		RunNo: 42344					
Prep Date:	4/25/2017		Analysis Date: 4/25/2017		SeqNo: 1331679		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31409		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31409		RunNo: 42344					
Prep Date:	4/25/2017		Analysis Date: 4/25/2017		SeqNo: 1331680		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A79

26-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31408		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31408		RunNo: 42335					
Prep Date:	4/25/2017		Analysis Date: 4/25/2017		SeqNo: 1330932		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	93.3	63.8	116			
Surr: DNOP	4.5		5.000		89.4	70	130			

Sample ID	MB-31408		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31408		RunNo: 42335					
Prep Date:	4/25/2017		Analysis Date: 4/25/2017		SeqNo: 1330933		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-31395		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31395		RunNo: 42335					
Prep Date:	4/24/2017		Analysis Date: 4/25/2017		SeqNo: 1331306		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.8	70	130			

Sample ID	MB-31395		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31395		RunNo: 42335					
Prep Date:	4/24/2017		Analysis Date: 4/25/2017		SeqNo: 1331307		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		107	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A79

26-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331528	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		99.7	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331529	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	76.4	125			
Surr: BFB	1100		1000		114	54	150			

Sample ID	MB-31392	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331541	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	54	150			

Sample ID	LCS-31392	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331542	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		111	54	150			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A79

26-Apr-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331563	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331564	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.7	80	120			
Toluene	0.93	0.050	1.000	0	92.8	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	66.6	132			

Sample ID	MB-31392	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331567	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	LCS-31392	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331568	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704A79**

RcptNo: **1**

Received By: **Lindsay Mangin** 4/25/2017 7:15:00 AM

Completed By: **Lindsay Mangin** 4/25/2017 7:34:32 AM

Reviewed By: **ENM** 04/25/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			





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

April 28, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: FLORANCE GC J 16A

OrderNo.: 1704B30

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/26/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704B30

Date Reported: 4/28/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-185

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/25/2017 2:05:00 PM

**Lab ID:** 1704B30-001

**Matrix:** MEOH (SOIL)

**Received Date:** 4/26/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/26/2017 10:42:11 AM	31436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.5		mg/Kg	1	4/26/2017 9:44:31 AM	31426
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/26/2017 9:44:31 AM	31426
Surr: DNOP	104	70-130		%Rec	1	4/26/2017 9:44:31 AM	31426
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/26/2017 12:24:01 PM	31417
Surr: BFB	103	54-150		%Rec	1	4/26/2017 12:24:01 PM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	4/26/2017 12:24:01 PM	31417
Toluene	ND	0.036		mg/Kg	1	4/26/2017 12:24:01 PM	31417
Ethylbenzene	ND	0.036		mg/Kg	1	4/26/2017 12:24:01 PM	31417
Xylenes, Total	ND	0.073		mg/Kg	1	4/26/2017 12:24:01 PM	31417
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/26/2017 12:24:01 PM	31417

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 8
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1704B30**

Date Reported: **4/28/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-186

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/25/2017 2:10:00 PM

**Lab ID:** 1704B30-002

**Matrix:** MEOH (SOIL)

**Received Date:** 4/26/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/26/2017 10:54:36 AM	31436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	34	9.4		mg/Kg	1	4/26/2017 10:06:13 AM	31426
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/26/2017 10:06:13 AM	31426
Surr: DNOP	105	70-130		%Rec	1	4/26/2017 10:06:13 AM	31426
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/26/2017 10:49:21 AM	31417
Surr: BFB	132	54-150		%Rec	1	4/26/2017 10:49:21 AM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/26/2017 10:49:21 AM	31417
Toluene	ND	0.034		mg/Kg	1	4/26/2017 10:49:21 AM	31417
Ethylbenzene	ND	0.034		mg/Kg	1	4/26/2017 10:49:21 AM	31417
Xylenes, Total	ND	0.068		mg/Kg	1	4/26/2017 10:49:21 AM	31417
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	1	4/26/2017 10:49:21 AM	31417

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704B30

Date Reported: 4/28/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-187

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/25/2017 2:15:00 PM

**Lab ID:** 1704B30-003

**Matrix:** MEOH (SOIL)

**Received Date:** 4/26/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/26/2017 11:07:00 AM	31436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	27	9.8		mg/Kg	1	4/26/2017 10:28:12 AM	31426
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/26/2017 10:28:12 AM	31426
Surr: DNOP	106	70-130		%Rec	1	4/26/2017 10:28:12 AM	31426
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/26/2017 11:13:02 AM	31417
Surr: BFB	109	54-150		%Rec	1	4/26/2017 11:13:02 AM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/26/2017 11:13:02 AM	31417
Toluene	ND	0.035		mg/Kg	1	4/26/2017 11:13:02 AM	31417
Ethylbenzene	ND	0.035		mg/Kg	1	4/26/2017 11:13:02 AM	31417
Xylenes, Total	ND	0.070		mg/Kg	1	4/26/2017 11:13:02 AM	31417
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	1	4/26/2017 11:13:02 AM	31417

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1704B30

Date Reported: 4/28/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** TSP-188

**Project:** FLORANCE GC J 16A

**Collection Date:** 4/25/2017 2:20:00 PM

**Lab ID:** 1704B30-004

**Matrix:** MEOH (SOIL)

**Received Date:** 4/26/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	4/26/2017 11:19:25 AM	31436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	9.2		mg/Kg	1	4/26/2017 10:50:09 AM	31426
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/26/2017 10:50:09 AM	31426
Surr: DNOP	106	70-130		%Rec	1	4/26/2017 10:50:09 AM	31426
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/26/2017 11:36:44 AM	31417
Surr: BFB	104	54-150		%Rec	1	4/26/2017 11:36:44 AM	31417
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	4/26/2017 11:36:44 AM	31417
Toluene	ND	0.035		mg/Kg	1	4/26/2017 11:36:44 AM	31417
Ethylbenzene	ND	0.035		mg/Kg	1	4/26/2017 11:36:44 AM	31417
Xylenes, Total	ND	0.069		mg/Kg	1	4/26/2017 11:36:44 AM	31417
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/26/2017 11:36:44 AM	31417

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704B30

28-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-31436		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 31436		RunNo: 42382					
Prep Date:	4/26/2017		Analysis Date: 4/26/2017		SeqNo: 1332968		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31436			SampType:	lcs		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS			Batch ID:	31436		RunNo:	42382			
Prep Date:	4/26/2017			Analysis Date:	4/26/2017		SeqNo:	1332969		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	92.9	90	110				

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704B30

28-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	LCS-31426		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31426		RunNo: 42362					
Prep Date:	4/26/2017		Analysis Date: 4/26/2017		SeqNo: 1331951		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	95.8	63.8	116			
Surr: DNOP	4.7		5.000		93.5	70	130			

Sample ID	MB-31426	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31426			RunNo: 42362					
Prep Date:	4/26/2017	Analysis Date: 4/26/2017			SeqNo: 1331952		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.2	70	130			

Sample ID	LCS-31439		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31439		RunNo: 42363					
Prep Date:	4/26/2017		Analysis Date: 4/26/2017		SeqNo: 1332305		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.0	70	130			

Sample ID	MB-31439		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31439		RunNo: 42363					
Prep Date:	4/26/2017		Analysis Date: 4/26/2017		SeqNo: 1332306		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		80.6	70	130			

Sample ID	LCS-31410			SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	31410		RunNo:	42363			
Prep Date:	4/25/2017			Analysis Date:	4/26/2017		SeqNo:	1332922		Units:	%Rec
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.5		5.000		89.5	70	130				

Sample ID	MB-31410		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 31410		RunNo: 42363					
Prep Date:	4/25/2017		Analysis Date: 4/26/2017		SeqNo: 1332923		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		81.8	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704B30

28-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-31417		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31417		RunNo: 42378					
Prep Date:	4/25/2017		Analysis Date: 4/26/2017		SeqNo: 1332745		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	54	150			

Sample ID	LCS-31417		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31417		RunNo: 42378					
Prep Date:	4/25/2017		Analysis Date: 4/26/2017		SeqNo: 1332746		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	97.2	76.4	125			
Surr: BFB	1000		1000		100	54	150			

### Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704B30

28-Apr-17

**Client:** Blagg Engineering  
**Project:** FLORANCE GC J 16A

Sample ID	MB-31417		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 31417		RunNo: 42378					
Prep Date:	4/25/2017		Analysis Date: 4/26/2017		SeqNo: 1332767		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	66.6	132			

Sample ID	LCS-31417		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 31417		RunNo: 42378					
Prep Date:	4/25/2017		Analysis Date: 4/26/2017		SeqNo: 1332768		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	80	120			
Toluene	0.92	0.050	1.000	0	92.3	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	66.6	132			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1704B30**

RcptNo: **1**

Received By: **Lindsay Mangin**

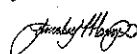
4/26/2017 7:00:00 AM

Completed By: **Lindsay Mangin**

4/26/2017 7:40:32 AM

Reviewed By: **ENM**

04/26/17

### 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: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	3.4	Good	Yes			



## Appendix D

### Temporary Use Area Vadose Zone Laboratory Analytical Data Reports



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

May 05, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1705070

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 5/2/2017 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](http://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 qualifiers 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1705070

Date Reported: 5/5/2017

CLIENT: Blagg Engineering

Client Sample ID: VZ-1

Project: Florance GC J 16A

Collection Date: 5/1/2017 10:48:00 AM

Lab ID: 1705070-001

Matrix: SOIL

Received Date: 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 1:44:02 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	30	9.3		mg/Kg	1	5/3/2017 2:44:19 PM	31533
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/3/2017 2:44:19 PM	31533
Surr: DNOP	87.1	70-130		%Rec	1	5/3/2017 2:44:19 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/3/2017 8:14:23 PM	31527
Surr: BFB	100	54-150		%Rec	1	5/3/2017 8:14:23 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/3/2017 8:14:23 PM	31527
Toluene	ND	0.048		mg/Kg	1	5/3/2017 8:14:23 PM	31527
Ethylbenzene	ND	0.048		mg/Kg	1	5/3/2017 8:14:23 PM	31527
Xylenes, Total	ND	0.096		mg/Kg	1	5/3/2017 8:14:23 PM	31527
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	5/3/2017 8:14:23 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1705070**

Date Reported: **5/5/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-2

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:52:00 AM

**Lab ID:** 1705070-002

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 2:21:15 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	5/3/2017 4:07:49 PM	31533
Motor Oil Range Organics (MRO)	50	48		mg/Kg	1	5/3/2017 4:07:49 PM	31533
Surr: DNOP	84.8	70-130		%Rec	1	5/3/2017 4:07:49 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/3/2017 8:38:13 PM	31527
Surr: BFB	98.2	54-150		%Rec	1	5/3/2017 8:38:13 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/3/2017 8:38:13 PM	31527
Toluene	ND	0.048		mg/Kg	1	5/3/2017 8:38:13 PM	31527
Ethylbenzene	ND	0.048		mg/Kg	1	5/3/2017 8:38:13 PM	31527
Xylenes, Total	ND	0.097		mg/Kg	1	5/3/2017 8:38:13 PM	31527
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	5/3/2017 8:38:13 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1705070

Date Reported: 5/5/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-3

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:24:00 AM

**Lab ID:** 1705070-003

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 2:33:40 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	9.6		mg/Kg	1	5/3/2017 4:35:54 PM	31533
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/3/2017 4:35:54 PM	31533
Surr: DNOP	96.1	70-130		%Rec	1	5/3/2017 4:35:54 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/3/2017 9:02:07 PM	31527
Surr: BFB	99.5	54-150		%Rec	1	5/3/2017 9:02:07 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	5/3/2017 9:02:07 PM	31527
Toluene	ND	0.047		mg/Kg	1	5/3/2017 9:02:07 PM	31527
Ethylbenzene	ND	0.047		mg/Kg	1	5/3/2017 9:02:07 PM	31527
Xylenes, Total	ND	0.094		mg/Kg	1	5/3/2017 9:02:07 PM	31527
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	5/3/2017 9:02:07 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1705070

Date Reported: 5/5/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-4

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:28:00 AM

**Lab ID:** 1705070-004

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 2:46:04 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	5/3/2017 5:04:00 PM	31533
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/3/2017 5:04:00 PM	31533
Surr: DNOP	90.1	70-130		%Rec	1	5/3/2017 5:04:00 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/3/2017 9:26:03 PM	31527
Surr: BFB	99.8	54-150		%Rec	1	5/3/2017 9:26:03 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/3/2017 9:26:03 PM	31527
Toluene	ND	0.050		mg/Kg	1	5/3/2017 9:26:03 PM	31527
Ethylbenzene	ND	0.050		mg/Kg	1	5/3/2017 9:26:03 PM	31527
Xylenes, Total	ND	0.10		mg/Kg	1	5/3/2017 9:26:03 PM	31527
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	5/3/2017 9:26:03 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1705070**

Date Reported: **5/5/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-5

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:32:00 AM

**Lab ID:** 1705070-005

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 2:58:29 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	36	9.5		mg/Kg	1	5/3/2017 5:32:04 PM	31533
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/3/2017 5:32:04 PM	31533
Surr: DNOP	86.0	70-130		%Rec	1	5/3/2017 5:32:04 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/3/2017 9:49:56 PM	31527
Surr: BFB	103	54-150		%Rec	1	5/3/2017 9:49:56 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/3/2017 9:49:56 PM	31527
Toluene	ND	0.049		mg/Kg	1	5/3/2017 9:49:56 PM	31527
Ethylbenzene	ND	0.049		mg/Kg	1	5/3/2017 9:49:56 PM	31527
Xylenes, Total	ND	0.099		mg/Kg	1	5/3/2017 9:49:56 PM	31527
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	5/3/2017 9:49:56 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1705070**

Date Reported: **5/5/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-6

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:36:00 AM

**Lab ID:** 1705070-006

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 3:35:42 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	39	9.3		mg/Kg	1	5/3/2017 6:00:08 PM	31533
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/3/2017 6:00:08 PM	31533
Surr: DNOP	86.9	70-130		%Rec	1	5/3/2017 6:00:08 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/3/2017 10:13:53 PM	31527
Surr: BFB	99.2	54-150		%Rec	1	5/3/2017 10:13:53 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	5/3/2017 10:13:53 PM	31527
Toluene	ND	0.046		mg/Kg	1	5/3/2017 10:13:53 PM	31527
Ethylbenzene	ND	0.046		mg/Kg	1	5/3/2017 10:13:53 PM	31527
Xylenes, Total	ND	0.093		mg/Kg	1	5/3/2017 10:13:53 PM	31527
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	5/3/2017 10:13:53 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1705070**

Date Reported: **5/5/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** VZ-7

**Project:** Florance GC J 16A

**Collection Date:** 5/1/2017 10:40:00 AM

**Lab ID:** 1705070-007

**Matrix:** SOIL

**Received Date:** 5/2/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	5/4/2017 3:48:06 PM	31565
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	57	10		mg/Kg	1	5/3/2017 6:28:24 PM	31533
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/3/2017 6:28:24 PM	31533
Surr: DNOP	86.6	70-130		%Rec	1	5/3/2017 6:28:24 PM	31533
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/3/2017 10:37:58 PM	31527
Surr: BFB	98.2	54-150		%Rec	1	5/3/2017 10:37:58 PM	31527
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	5/3/2017 10:37:58 PM	31527
Toluene	ND	0.047		mg/Kg	1	5/3/2017 10:37:58 PM	31527
Ethylbenzene	ND	0.047		mg/Kg	1	5/3/2017 10:37:58 PM	31527
Xylenes, Total	ND	0.094		mg/Kg	1	5/3/2017 10:37:58 PM	31527
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	5/3/2017 10:37:58 PM	31527

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705070

05-May-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31565		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 31565		RunNo: 42548					
Prep Date:	5/4/2017		Analysis Date: 5/4/2017		SeqNo: 1339022		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31565		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31565		RunNo: 42548					
Prep Date:	5/4/2017		Analysis Date: 5/4/2017		SeqNo: 1339023		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705070

05-May-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-31533		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31533		RunNo: 42506					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337177		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	97.3	63.8	116			
Surr: DNOP	4.8		5.000		95.8	70	130			

Sample ID	MB-31533	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS	Batch ID: 31533		RunNo: 42506						
Prep Date:	5/2/2017	Analysis Date: 5/3/2017		SeqNo: 1337178			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	1705070-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	VZ-1		Batch ID: 31533		RunNo: 42507					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337181		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	81	9.3	46.47	29.80	111	51.6	130			
Surr: DNOP	4.4		4.647		94.1	70	130			

Sample ID	1705070-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	VZ-1		Batch ID:	31533		RunNo:	42507				
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337182		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	72	9.6	47.76	29.80	88.1	51.6	130	12.2	20		
Surr: DNOP	4.8		4.776		99.6	70	130	0	0		

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705070

05-May-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-31528		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31528		RunNo: 42521					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337213		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.0	54	150			

Sample ID	LCS-31528		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31528		RunNo: 42521					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337214		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	54	150			

Sample ID	MB-31527		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	31527		RunNo:	42521				
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337221		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	970		1000		96.8	54	150				

Sample ID	LCS-31527		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31527		RunNo: 42521					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337222		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	94.1	76.4	125			
Surr: BFB	1000		1000		103	54	150			

Sample ID	1705070-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	VZ-2		Batch ID: 31527		RunNo: 42521					
Prep Date:	5/2/2017		Analysis Date: 5/3/2017		SeqNo: 1337225		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.11	0	107	61.3	150			
Surr: BFB	1100		964.3		109	54	150			

Sample ID	1705070-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	VZ-2		Batch ID:	31527		RunNo:	42521				
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337226		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	4.7	23.74	0	105	61.3	150	3.76	20		
Surr: BFB	1100		949.7		112	54	150	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705070

05-May-17

**Client:** Blagg Engineering  
**Project:** Florance GC J 16A

Sample ID <b>MB-31528</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31528</b>		RunNo: <b>42521</b>							
Prep Date: <b>5/2/2017</b>	Analysis Date: <b>5/3/2017</b>		SeqNo: <b>1337245</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID <b>LCS-31528</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31528</b>		RunNo: <b>42521</b>							
Prep Date: <b>5/2/2017</b>	Analysis Date: <b>5/3/2017</b>		SeqNo: <b>1337246</b>		Units: <b>%Rec</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID <b>MB-31527</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>31527</b>		RunNo: <b>42521</b>							
Prep Date: <b>5/2/2017</b>	Analysis Date: <b>5/3/2017</b>		SeqNo: <b>1337252</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		114	66.6	132			

Sample ID <b>LCS-31527</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>31527</b>		RunNo: <b>42521</b>							
Prep Date: <b>5/2/2017</b>	Analysis Date: <b>5/3/2017</b>		SeqNo: <b>1337253</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.1	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID <b>1705070-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>VZ-1</b>	Batch ID: <b>31527</b>		RunNo: <b>42521</b>							
Prep Date: <b>5/2/2017</b>	Analysis Date: <b>5/3/2017</b>		SeqNo: <b>1337255</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9785	0	107	61.5	138			
Toluene	1.1	0.049	0.9785	0.008341	107	71.4	127			
Ethylbenzene	1.1	0.049	0.9785	0	111	70.9	132			
Xylenes, Total	3.3	0.098	2.935	0	112	76.2	123			

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1705070

05-May-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1705070-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	VZ-1	Batch ID:	31527	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337255	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		0.9785		111	66.6	132			

Sample ID	1705070-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	VZ-1	Batch ID:	31527	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337256	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9862	0	108	61.5	138	2.06	20	
Toluene	1.1	0.049	0.9862	0.008341	109	71.4	127	2.42	20	
Ethylbenzene	1.1	0.049	0.9862	0	112	70.9	132	2.37	20	
Xylenes, Total	3.4	0.099	2.959	0	114	76.2	123	2.72	20	
Surr: 4-Bromofluorobenzene	1.1		0.9862		111	66.6	132	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1705070**

RcptNo: **1**

Received By: **Sophia Campuzano** 5/2/2017 8:00:00 AM

Completed By: **Andy Jansson** 5/2/2017 8:59:44 AM

Reviewed By: **ENM** 05/02/17

*Sophia Campuzano*

*Andy Jansson*

### 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	4.3	Good	Yes			

# Chain-of-Custody Record

Client: BP America  
Black Engineering  
 Mailing Address:

Phone #: (505) 320-1103

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Sample Temperature: 4-3

Date Time Matrix Sample Request ID

5/17	1048	Soil	VZ-1
	1052		VZ-2
	1024		VZ-3
	1028		VZ-4
	1032		VZ-5
	1036		VZ-6
	1040		VZ-7

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

FLORANCE GC J 16A

Project #:

Project Manager:

J. Babb

Sampler:

J. Babb

On Ice: ☒ Yes ☐ No

Container Type and #

40L x 1

Preservative Type

cool

HEAL No.

1705070

TPH (Method 418.1)

TPH 8015B (GRO / DRO / MRO)

BTEX + MTBE + TMBs (8021)

BTEX + MTBE + TMBs (8021)

TPH 8015B (GRO / DRO / MRO)

BTEX + MTBE + TMBs (8021)

TPH (Method 418.1)

EDB (Method 504.1)

PAH's (6310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCBs

8260B (VOA)

8270 (Semi-VOA)

CHLORIDE

Air Bubbles (Y or N)

## Analysis Request

Remarks: See BP Contract: State of New Mexico  
VID: VHXONEVIRM  
WES Element: LL - 0019N-E: FURNACE J 16A



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## **Drilling Investigation**

**Florance GC J 16A  
(P) Sec 6 – T30N – R9W  
API: 30-045-21790  
San Juan County, New Mexico**

Prepared for:  
BP America Production Co.  
Farmington, New Mexico

Prepared by:  
Blagg Engineering, Inc.  
P.O. Box 87  
Bloomfield, New Mexico 87413  
(505)632-1199

March 31, 2017

DRILLING INVESTIGATION  
FLORANCE GC J 16A

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## DRILLING INVESTIGATION FLORANCE GC J 16A

### INTRODUCTION

Blagg Engineering Inc. (BEI) has been retained by BP America Production Co. (BP) to conduct an environmental drilling investigation at the Florance GC J 16A, located in rural San Juan County, New Mexico at (P) Sec. 6 – T30N – R9W (Figure 1). The purpose of the investigation was to further delineate hydrocarbon impacts known to exist at the site. A shallow soil investigation conducted by BP on March 30, 2016 using a backhoe determined that site impacts appeared to have several source areas, including the Williams operated dehy pit on the south end of the well pad and the BP operated separator/compressor area. On October 24, 2016 during removal of the BP operated 95 barrel steel below grade drain tank (BGT) on the northwest edge of the well pad additional soil impacts were discovered at the BGT. Additionally, on this same date the BP operated 3-inch welded steel sales line that began at the BP separator at the northeast extent of the location and ended at the Williams operated dehy unit on the southwest extent of the location was removed. The sales line was documented to have no integrity issues and no soil impacts were found to exist immediately above or below the line.

Five groundwater monitor wells previously installed by BP in May and June, 2015 were at the site prior to beginning this investigation. Measurements on these wells determined that a suspected perched water table was present at approximately 36 feet below surface grade and the groundwater gradient was in a south to south east direction. The lithology was consistent at the site, with a thick layer of dense sandstone beginning near the ground surface and extending to a depth of 36' – 40', where a blue shalestone was encountered. The perched water table appeared to be confined on this shalestone.

Sampling of the pre-existing monitoring wells determined that hydrocarbon impacts to groundwater were present in the vicinity of the Williams dehy unit on the southern end of the well pad, but not in the area of the BP surface soil impacts on the northern end of the well pad. In summary, monitor wells MW-1 and MW-4 located immediately down-gradient of BP operated surface equipment were tested to be non-detect for all hydrocarbons. The monitor wells immediately up-gradient of the Williams operated dehy facilities (MW-2 and MW-5) demonstrated hydrocarbon impacts exceeding NMOCD standards, and the monitor well immediately down-gradient of the Williams dehy unit (MW-3) was found to have 2.38 feet of LNAPL (apparent condensate).

### INVESTIGATION ACTIVITIES

During this investigation conducted on November 10 – 12, 2016, a total of six borings were advanced to the perched water table. Approximate drilling locations had been pre-determined and well permits had been approved by the New Mexico Office of the State Engineer. Five of the borings were completed as groundwater monitor wells and one boring (BH-A) was abandoned. It should be noted that on-site remediation by excavation was on-going prior to and during the drilling activities and the surface elevation of the borings was in some cases significantly altered

from (lower than) the original native ground surface. The ongoing remediation also restricted access to prospective drilling locations.

### INVESTIGATIVE PROCEDURES

Beginning on January 10, 2017 drilling operations were commenced by Yellow Jacket Drilling using a CME-85 hollow stem auger rig equipped with a 5-foot long x 4-inch diameter continuous core sampler. The boring for monitor well MW-8 was completed on January 10, the borings for monitor wells MW-7 and MW-9 were completed on January 11 and the borings for MW-6, MW-10 and bore hole BH-A were completed on January 12.

Continuous soil and bedrock samples were collected in five foot intervals while drilling at each bore hole. The bore holes were advanced until the sandstone section had been fully penetrated and the shalestone section had been encountered. The continuous core samples were described and photographed, then a representative portion was placed into a gallon sized Ziploc® baggie for field headspace analysis of organic vapors with a calibrated IonScience Tiger model photo-ionization detector (PID) containing a 11.2 eV lamp. Split samples were placed into a 4-ounce laboratory supplied jar with Teflon® lid, labeled and placed on ice in an ice chest for further laboratory testing. The jarred samples were hand delivered to a representative of Hall Environmental Analytical Laboratories for analysis via U.S. EPA Method 8021B (volatile organics limited to benzene, toluene, ethyl benzene and total xylenes) and U.S. EPA Method 8015 (gasoline range (GRO), diesel range (DRO) and motor oil range (MRO) organics). A chain-of-custody followed the samples.

Five of the borings were completed as groundwater monitor wells, as mentioned above. These completions consisted of either a 5-foot or 10-foot long slotted screened section with riser extending to about 3 feet above grade. The piping used for completion of the wells was a schedule 40 PVC with threaded connections. The annulus of the screened section was sand packed with washed graded silica 10/20 mesh from boring total depth (TD) to approximately 2 feet above the top screen slot. A 1 foot section of washed 60 mesh sand was placed above the 10/20 graded silica sand, followed by a cement/bentonite grout mix installed in the annulus from immediately above the 60 mesh sand to the ground surface. The well tops were secured with a steel, lockable well protector cemented into place.

Borehole BH-A was abandoned immediately after drilling by filling the borehole with a cement/bentonite grout mix from boring TD to the ground surface.

The completed monitor wells were inspected for water accumulation daily following installation. Monitor wells MW-6, MW-7, MW-8 and MW-10 all accumulated water, but on January 16, 2017 monitor well MW-9 remained dry. The wells with water were developed on January 16, 2017 by hand bailing water from each until stable parameters (pH, Conductivity and Temperature) were achieved. A new, unopened, dedicated disposable bailer was used for development of each well. The wells were sampled (again by hand bailing using a new, dedicated disposable bailer until stable parameters were achieved) on January 17, 2017 with NMOCD and BLM representatives

present to witness. Samples were placed into laboratory supplied containers with appropriate preservatives, labeled, placed on ice in an ice chest, then hand delivered to a Hall Laboratories representative with chain-of-custody documentation. Laboratory samples were analyzed via U.S EPA Method 8260 for volatile organics and cation/anion balance.

Groundwater was observed to be present in monitor well MW-9 on February 10, 2017. The monitor well was developed on February 13, 2017 using the same process as previously described for the other wells, and sampled with NMOCD/BLM witnessing on February 16, 2017. The sampling procedures and analytical parameters were the same as the other wells.

On March 3, 2017 the monitor well elevation tops were surveyed by Souder, Miller and Associates. On this same day, the static depth to water was measured in each well.

### INVESTIGATION FINDINGS

Laboratory analytical data from the soils collected during drilling are summarized below in Tables 1 – 6. Laboratory reports are included in Appendix B. Boring logs are included as Figures 2 – 7. Monitor well elevation tops are included as Figure 8.

TABLE 1  
MW#6 Soil Analytical Results  
January 11- 12, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
8'-9'	575	520	1,600	160	2,280	ND	13
9'-14'	384	980	2,400	330	3,710	ND	30
14'-19'	620	1,300	2,700	360	4,360	ND	37.8
19'-24'	959	1,500	3,300	380	5,180	ND	45.3
24'-29'	617	460	1,200	140	1,800	ND	11.1
29'-34'	725	430	1,100	140	1,670	ND	11.2
34'-38'	0.2	ND	ND	ND	ND	ND	ND

TABLE 2  
MW#7 Soil Analytical Results  
January 11, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
3.5'-8.5'	2.5	ND	ND	ND	ND	ND	ND
8.5'-13.5'	9.1	ND	62	ND	62	ND	ND
13.5'-18.5'	0.7	ND	ND	ND	ND	ND	ND
18.5'-23.5'	2.5	ND	9.7	ND	9.7	ND	ND
23.5'-28.5'	0.0	ND	ND	ND	ND	ND	ND
28.5'-33.5'	4.6	ND	24	ND	24	ND	ND
33.5'-38.5'	0.4	ND	ND	ND	ND	ND	ND
38.5'-40'	0.3	ND	ND	ND	ND	ND	ND

TABLE 3  
MW#8 Soil Analytical Results  
January 10, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
5'-9'	1,067	87	20	ND	107	ND	0.30
9'-14'	22	ND	ND	ND	ND	ND	ND
14'-19'	2,128	23	78	ND	101	ND	0.27
19'-24'	118	ND	ND	ND	ND	ND	ND
24'-29'	26	ND	ND	ND	ND	ND	ND
29'-34'	62.6	ND	ND	ND	ND	ND	ND
38'	34	ND	ND	ND	ND	ND	0.53
38.5'	3.3	ND	ND	ND	ND	ND	ND
39'	39	ND	ND	ND	ND	ND	ND

TABLE 4  
MW#9 Soil Analytical Results  
January 11, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
3.5'-8.5'	0.0	ND	ND	ND	ND	ND	ND
8.5'-13.5'	0.3	ND	ND	ND	ND	ND	ND
13.5'-18.5'	0.1	ND	ND	ND	ND	ND	ND
18.5'-23.5'	0.1	ND	ND	ND	ND	ND	ND
23.5'-28.5'	0.0	ND	ND	ND	ND	ND	ND
28.5'-33.5'	0.2	ND	ND	ND	ND	ND	ND
33.5'-38.5'	0.0	ND	ND	ND	ND	ND	ND
38.5'-43'	0.0	ND	ND	ND	ND	ND	ND

TABLE 5  
MW#10 Soil Analytical Results  
January 12, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
4'-9'	906	530	810	ND	1,340	ND	4.4
9'-14'	1,188	560	640	ND	1,200	ND	7.9
14'-19'	1,450	110	240	ND	350	ND	1.87
19'-24'	96	ND	12	ND	12	ND	ND
27'	27.8	ND	ND	ND	ND	ND	ND
29'-31'	5.3	20	42	ND	62	ND	0.20

TABLE 6  
BH-A Soil Analytical Results  
January 12, 2017

Sample Depth	Field OVM (ppm)	TPH (GRO) (mg/Kg)	TPH (DRO) (mg/Kg)	TPH (MRO) (mg/Kg)	TPH Total (mg/Kg)	Benzene (mg/Kg)	Total BTEX (mg/Kg)
4'-8.5'	0.0	ND	ND	ND	ND	ND	ND
8.5'-13.5'	0.1	ND	ND	ND	ND	ND	ND
13.5'-18.5'	0.9	ND	ND	ND	ND	ND	ND
18.5'-23.5'	2.5	ND	ND	ND	ND	ND	ND
23.5'-28.5'	0.7	ND	ND	ND	ND	ND	ND

Laboratory analytical data from groundwater sampling the monitor wells is summarized below in Table 7. Analytical data reports are included in Appendix B.

TABLE 7  
Groundwater Analytical Summary Results

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	TDS (mg/L)
MW-6	Jan 17, 2017	8.4	1.6	23	260	370
MW-7	Jan 17, 2017	ND	ND	ND	2.2	300
MW-8	Jan 17, 2017	12	26	10	43	465
MW-10	Jan 17, 2017	10,000	12,000	550	5,500	725
MW-9	Feb 16, 2017	ND	ND	ND	ND	670

TABLE 8  
Monitor Well Elevation Tops and Groundwater Elevation  
March 3, 2017

Monitor Well	Elevation Casing Top	Measured Depth to Water	Groundwater Elevation
MW-6	6503.04	33.58	6469.46
MW-7	6502.82	33.10	6469.72
MW-8	6507.155	37.70	6469.455
MW-9	6505.28	36.52	6468.76
MW-10	6492.41	24.91	6467.50

The concentrations of total BTEX (benzene, toluene, ethyl-benzene and total xylenes) reported from the January 17 – February 16, 2017 sample event of the 5 monitor wells (MW-6 through MW-10) is depicted on Figure 9, Iso-Concentration Map. A second Iso-Concentration Map, Figure 10, includes data from this sample event with additional data from the most recent sample events on monitor wells MW-1 through MW-5.

## Appendix A – Figures

Figure 1: Site Map

Figure 2: MW-6 Boring Log

Figure 3: MW-7 Boring Log

Figure 4: MW-8 Boring Log

Figure 5: MW-9 Boring Log

Figure 6: MW-10 Boring Log

Figure 7: BH-A Boring Log

Figure 8: Souder, Miller and Associates Well Top Survey

Figure 9: Groundwater Gradient Map – March 3, 2017

Figure 10: BTEX Iso-Concentration Map – Monitor Wells MW-6 through MW-10

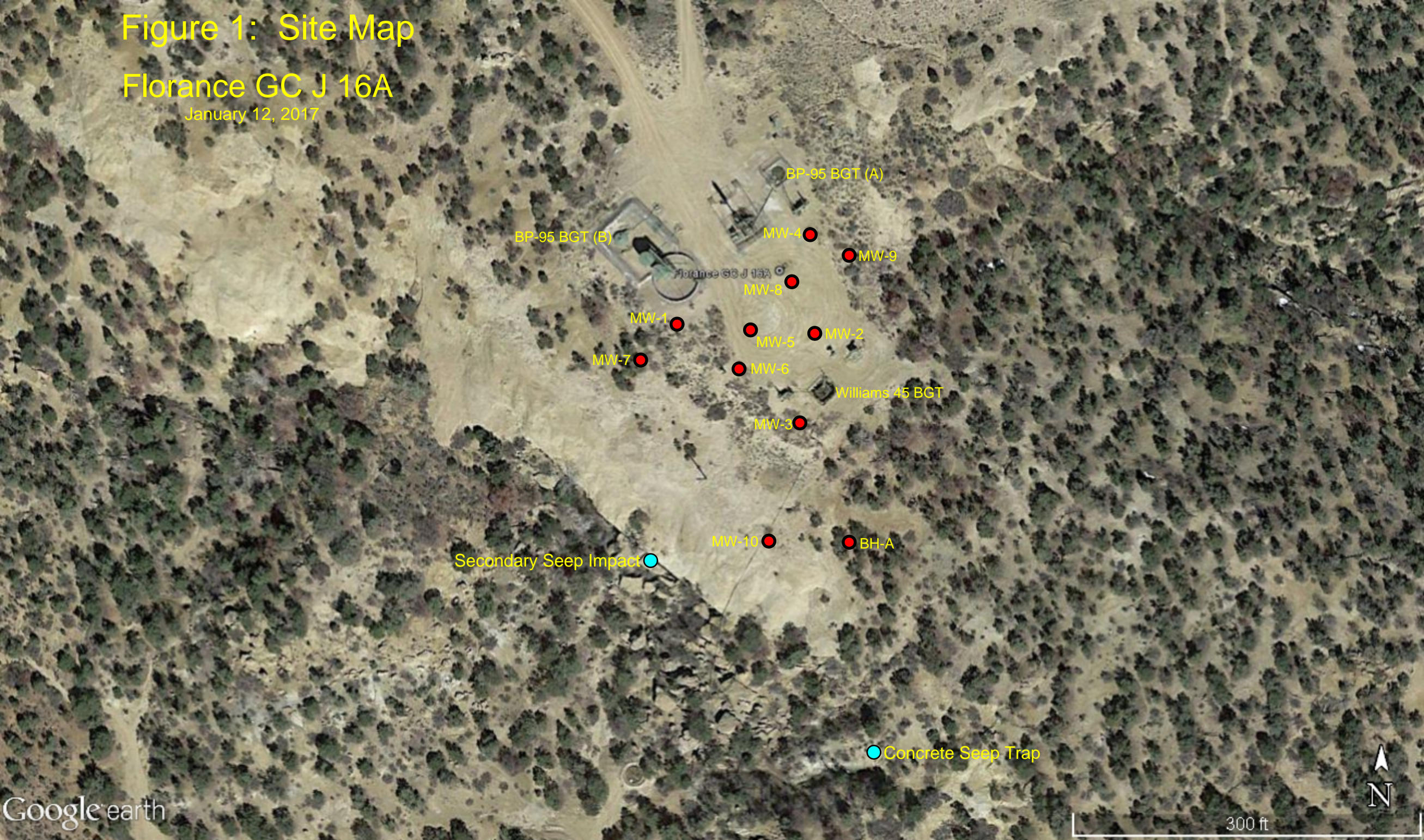
Figure 11: BTEX Iso-Concentration Map – Historical Including all Monitor Wells



# Figure 1: Site Map

Florance GC J 16A

January 12, 2017





# BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION CO.**  
LOCATION NAME: **FLORANCE GC J # 16A** API #: 3004521790 UNIT P, SEC. 6, T30N, R9W  
CONTRACTOR: **BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING**  
EQUIPMENT USED: **MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER**  
BORING LOCATION: **36.83521 N x 107.81635 W**

BORING #..... **BH - 4**  
MW #..... **6**  
PAGE #..... **1**  
DATE STARTED **01/11/2017**  
DATE FINISHED **01/12/2017**  
OPERATOR..... **SL**  
LOGGED BY..... **JCB**

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2			cuttings		75.5		START TIME - 1553
4				1558			DARK YELLOWISH ORANGE SILTY SAND, UNTREATED IMPACT FROM CURRENT EXCAVATION OF NE AREA.
6			continuous core				DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST.
8				1619	575	2,280	RECOVERED 31" BOTTOM 9" APPARENTLY VIRGIN CRUSHED SANDSTONE, DARK YELLOWISH ORANGE, DRY, NO APPARENT HYDROCARBON (HC) ODOR DETECTED OR ANY STAINING
10							SAMPLE 8'-9'
12				1624	384	3,710	RECOVERED 20" SAA EXCEPT SLIGHTLY MOIST, MEDIUM GRAINED SAND WITH SANDSTONE SHARDS, APPARENT HC ODOR, NO STAINING.
14							
16				1634	620	4,360	RECOVERED 19" SAA
18							
20				1643	959	5,180	RECOVERED 16" SAA
22							
24				1653	617	1,800	RECOVERED 20" SAA
26							
28							STOPPED DRILLING FOR THE DAY, LEFT AUGERS IN BORING HOLE. RESTARTED @ 29 FT.; 1/12/2017 @ 7:45 AM.
30					725	1,670	RECOVERED 18" SAA
32				0754			
34					0.2	ND	RECOVERED 31" BLUE SILTSTONE/SHALE, NO APPARENT HC ODOR DETECTED, SLIGHTLY MOIST, NO PLASTIC
36				0803			
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

TOTAL DEPTH - 38 FEET

NOTES:

- SILTY SAND / SANDSTONE (all sandstone below 4 feet).
- SILTSTONE / SHALE.
- OVM** - Organic vapor meter or photoionization detector (PID).
- ppm** - parts per million or milligram per kilogram (mg/Kg).
- ND** - Not detected at laboratory reporting limit.
- SAA** - Same as above.
- TPH** - Total Petroleum Hydrocarbons.
- GRO** - Gasoline Range Organics; **DRO** - Diesel Range Organics;
- MRO** - Motor Oil Range Organics.

**OVM CALIBRATION:**

100.0 ppm; RF = 1.00  
(RF = response factor).

100 ppm calibration gas  
- isobutylene.  
Date - 01/11/2017.  
Time - 1440.  
Date - 01/12/2017.  
Time - 0815.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 32.50 ft. below grade (bg), 0.010 slotted screen between 32.50 to 37.50 ft. bg, 10/20 sand packed annular to 31.0 ft. bg, 60 sand packed annular to 30.0 ft. bg, bentonite chips between 28.0 to 30.0 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade. Secured casing top with steel protector, locking cap, and padlock.

# BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION CO.**  
LOCATION NAME: **FLORANCE GC J # 16A** API #: 3004521790 UNIT P, SEC. 6, T30N, R9W  
CONTRACTOR: **BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING**  
EQUIPMENT USED: **MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER**  
BORING LOCATION: **36.83523 N x 107.81663 W**

BORING #..... BH - 3  
MW #..... 7  
PAGE #..... 3  
DATE STARTED 01/11/2017  
DATE FINISHED 01/11/2017  
OPERATOR..... SL  
LOGGED BY..... JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS	
							GROUND SURFACE	
2			cuttings				START TIME - 1253	
4			continuous core	1255				
6					2.5	ND	RECOVERED 11"	VERY PALE ORANGE SILTY SAND, DRY, NO APPARENT HYDROCARBON (HC) ODOR DETECTED OR STAINING OBSERVED.
8				1303				
10					9.1	62	RECOVERED 4"	DARK YELLOWISH ORANGE SILTY SAND, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED OR STAINING OBSERVED, MINOR AMOUNT OF SANDSTONE SHARDS.
12				1313				
14					0.7	ND	RECOVERED 4"	SAA
16				1321				
18					2.5	9.7	RECOVERED 4"	SAA
20				1329				
22					0.0	ND	RECOVERED 3"	SAA
24				1339				
26					4.6	24	RECOVERED 3"	SAA
28				1347				
30					0.4	ND	RECOVERED 28"	BLUE SHALE, DRY, NO APPARENT HC ODOR DETECTED, NO STAINING OBSERVED (cuttings showed blue shale at 38 ft. +/-, then blue siltstone).
32				1405				
34				1416	0.3	ND	RECOVERED 26"	BLUE SILTSTONE, NO APPARENT HC ODOR DETECTED, NO STAINING OBSERVED
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								

APPROXIMATE GROUNDWATER LEVEL MEASURED 01/17/2017.

TOTAL DEPTH - 39.6 FEET

NOTES:  - SILTY SAND / SANDSTONE.  - SILTSTONE / SHALE.

**OVM** - Organic vapor meter or photoionization detector (PID).  
**ppm** - parts per million or milligram per kilogram (mg/Kg).  
**ND** - Not detected at laboratory reporting limit.  
**SAA** - Same as above.  
**TPH** - Total Petroleum Hydrocarbons.  
GRO - Gasoline Range Organics; DRO - Diesel Range Organics;  
MRO - Motor Oil Range Organics.

**OVM CALIBRATION:**  
100.0 ppm; RF = 1.00  
(RF = response factor).  
100 ppm calibration gas - isobutylene.  
Date - 01/11/2017.  
Time - 1440.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 29.60 ft. below grade (bg), 0.010 slotted screen between 29.60 to 39.60 ft. bg, 10/20 sand packed annular to 28.0 ft. bg, 60 sand packed annular to 27.0 ft. bg, bentonite chips between 25.0 to 27.0 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade. Secured casing top with steel protector, locking cap, and padlock.

## BORE / TEST HOLE REPORT

CLIENT:

BP AMERICA PRODUCTION CO.

LOCATION NAME:

FLORANCE GC J # 16A API #: 3004521790 UNIT P, SEC. 6, T30N, R9W

CONTRACTOR:

BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING

EQUIPMENT USED:

MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER

BORING LOCATION:

36.83541 N x 107.81618 W (16.5 FEET, SE OF WELL HEAD).

BORING #..... BH - 1  
 MW #..... 8  
 PAGE #..... 3  
 DATE STARTED 01/10/2017  
 DATE FINISHED 01/11/2017  
 OPERATOR..... SL  
 LOGGED BY..... JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2			cuttings		1.0		START TIME - 1231
4							DARK YELLOWISH ORANGE SILTY SAND, DRY TO SLIGHTLY MOIST, NO APPARENT HYDROCARBON (HC) ODOR DETECTED OR STAINING OBSERVED.
6			continuous core	1234	1,067	107	RECOVERED 22"
8				1304			CUTTINGS AT 7 FEET (FT.) - BLUISH TINT WITH STRONG APPARENT HC ODOR, APPROXIMATELY 15' IN SLEEVE - BLUISH SAND, STRONG APPARENT HC ODOR, AT BOTTOM 8" - DARK YELLOWISH ORANGE SILTY SAND, LIGHT HC ODOR, SLIGHTLY MOIST.
10					22.0	ND	RECOVERED 21"
12				1313			DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED OR STAINING OBSERVED, SMALL AMOUNT OF SANDSTONE SHARDS.
14					2,218	101	RECOVERED 23"
16				1321			LIGHT GRAY SAND, SLIGHTLY MOIST, MINOR APPARENT HC ODOR DETECTED, SMALL AMOUNT OF SANDSTONE SHARDS.
18					118	ND	CUTTINGS LIGHT GRAY WITH HC ODOR DETECTED AT 17 FT. DARK YELLOWISH ORANGE AT BOTTOM OF CORE
20				1332			CUTTINGS LIGHT GRAY WITH APPARENT HC ODOR DETECTED.
22					26.0	ND	RECOVERED 25"
24				1344			DARK YELLOWISH ORANGE SAND, MINOR APPARENT HC ODOR DETECTED, LAYERS OF GRAY & SLIGHTLY MOIST.
26							LAYERED DARK YELLOWISH ORANGE & BLUISH TINT SAND, SLIGHTLY MOIST, VERY MINOR APPARENT HC ODOR DETECTED.
28							RECOVERED 19"
30					62.6	ND	BOTTOM OF CORE - DARK YELLOWISH ORANGE SAND WITH NO APPARENT HC ODOR DETECTED.
32				1352			RECOVERED 16"
34							DARK YELLOWISH ORANGE SAND WITH MINOR LAYERS OF GRAY SANDSTONE SHARDS, VERY MINOR APPARENT HC ODOR DETECTED.
36					34.1	ND	8' ABOVE SAND - LIGHT GRAY SANDSTONE
38					7.1		5' ABOVE SHALE - DARK YELLOWISH ORANGE SAND
40					3.3		BOTTOM 4" - BLUE SHALE, DRY.
42				1402			RECOVERED 17"
44				1432			DRILLED FOR 30 MINUTES & ADVANCED 1 FT. - AUGER REFUSAL.
46					39.0		RECOVERED 6" +/- (BLUE SHALE).
48							
50							
52							
54							
56							
58							
60							

TOTAL DEPTH - 39.8 FEET

NOTES:



- SILTY SAND / SAND / SANDSTONE.



- SANDSTONE (discoloration).



- SAND OR SHALE.

OVM

- Organic vapor meter or photoionization detector (PID).

ppm

- parts per million or milligram per kilogram (mg/Kg).

ND

- Not detected at laboratory reporting limit.

TPH

- Total Petroleum Hydrocarbons.

GRO - Gasoline Range Organics; DRO - Diesel Range Organics;

MRO - Motor Oil Range Organics.

## OVM CALIBRATION:

100.0 ppm; RF = 1.00  
 (RF = response factor).  
 100 ppm calibration gas  
 - isobutylene.  
 Date - 01/10/2017.  
 Time - 1440.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 34.80 ft. below grade (bg), 0.010 slotted screen between 34.80 to 39.80 ft. bg, 10/20 sand packed annular to 33.6 ft. bg, 60 sand packed annular to 32.5 ft. bg, bentonite chips between 30.0 to 32.5 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade on 01/11/2017. Secured casing top with steel protector, locking cap, and padlock.

## BORE / TEST HOLE REPORT

CLIENT:

LOCATION NAME:

CONTRACTOR:

EQUIPMENT USED:

BORING LOCATION:

BP AMERICA PRODUCTION CO.

FLORANCE GC J # 16A API #: 3004521790 UNIT P, SEC. 6, T30N, R9W

BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING

MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER

36.83548 N x 107.81601 W



BORING #..... BH - 2  
 MW #..... 9  
 PAGE #..... 4  
 DATE STARTED 01/11/2017  
 DATE FINISHED 01/11/2017  
 OPERATOR..... SL  
 LOGGED BY..... JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2			cuttings		0.5		START TIME - 0830
4				0832			VERY PALE ORANGE SILTY SAND, DRY, NO APPARENT HYDROCARBON (HC) ODOR DETECTED OR STAINING OBSERVED.
6			continuous core		0.0	ND	RECOVERED 20" SAA EXCEPT WITH SANDSTONE SHARDS.
8				0847			
10					0.3	ND	RECOVERED 20" SAA EXCEPT SAND & SLIGHTLY MOIST.
12				0857			
14					0.1	ND	RECOVERED 15" SAA EXCEPT INCREASE MOISTURE.
16				0907			
18					0.1	ND	RECOVERED 28" SAA
20				0915			
22					0.0	ND	RECOVERED 19" SAA EXCEPT TOP 4" - SILTY SAND WITH BLuish TINT & DRY.
24				0923			
26					0.2	ND	RECOVERED 20" SAA EXCEPT NO SILTY SAND LAYER & INCREASE MOISTURE.
28				0933			TOP 10" OF CORE - BLuish SANDSTONE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED OR STAINING OBSERVED.
30					0.0	ND	RECOVERED 13" BOTTOM 3" OF CORE - BLUE SHALE, DRY, NO APPARENT HC ODOR DETECTED OR STAINING OBSERVED.
32				0945			
34					0.0	ND	RECOVERED 34" BLUE SILTSTONE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED OR STAINING OBSERVED.
36				1007			
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

TOTAL DEPTH - 43 FEET

NO GROUNDWATER OBSERVED WITHIN WELL AS OF 01/20/2017.

NOTES:

- SAND / SILTY SAND / SANDSTONE.  - SILTSTONE / SHALE.   
 OVM - Organic vapor meter or photoionization detector (PID).  
 ppm - parts per million or milligram per kilogram (mg/Kg).  
 ND - Not detected at laboratory reporting limit.  
 SAA - Same as above.  
 TPH - Total Petroleum Hydrocarbons.  
 GRO - Gasoline Range Organics; DRO - Diesel Range Organics;  
 MRO - Motor Oil Range Organics.

## OVM CALIBRATION:

100.0 ppm; RF = 1.00  
 (RF = response factor).  
 100 ppm calibration gas  
 - isobutylene.  
 Date - 01/11/2017.  
 Time - 1440.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 43.00 ft. below grade (bg), 0.010 slotted screen between 33.00 to 43.00 ft. bg, 10/20 sand packed annular to 32.0 ft. bg, 60 sand packed annular to 31.0 ft. bg, bentonite chips between 29.0 to 31.0 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade. Secured casing top with steel protector, locking cap, and padlock.



# BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION CO.**  
LOCATION NAME: **FLORANCE GC J # 16A** API #: 3004521790 UNIT P, SEC. 6, T30N, R9W  
CONTRACTOR: **BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING**  
EQUIPMENT USED: **MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER**  
BORING LOCATION: **36.83481 N x 107.81602 W (SW OF WILLIAMS EXCAVATION).**

BORING #..... BH - 5  
MW #..... 10  
PAGE #..... 5  
DATE STARTED 01/12/2017  
DATE FINISHED 01/12/2017  
OPERATOR..... SL  
LOGGED BY..... JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (mg/Kg)	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2			cuttings		33.9		START TIME - 1154
4				1156			DARK YELLOWISH ORANGE SILTY SAND, MOIST, APPARENT HYDROCARBON (HC) ODOR DETECTED, SOIL POSSIBLY FROM PRIOR REMEDIATED MATERIAL.
6			continuous core		906	1,340	RECOVERED 27"
8				1230			MOTTLED GRAY/DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST, MEDIUM GRAINED WITH SANDSTONE SHARDS, STRONG APPARENT HC ODOR DETECTED.
10					1,188	1,200	RECOVERED 25"
12				1236			DARK YELLOWISH ORANGE SAND, SLIGHTLY MOIST, MEDIUM GRAINED WITH SANDSTONE SHARDS, STRONG APPARENT HC ODOR DETECTED.
14					1,450	350	RECOVERED 16"
16				1244			SAA
18					96	12	RECOVERED 14"
20				1252			SAA EXCEPT AT BOTTOM 6" - MINOR BLACK STREAKS.
22							APPROXIMATE GROUNDWATER LEVEL MEASURED 01/17/2017.
24					27.8	ND	RECOVERED 17"
26							TOP 9" - DARK YELLOWISH BROWN SANDSTONE, SATURATED, MINOR BUT APPARENT HC ODOR DETECTED (sampled).
28				1300			BOTTOM 8" - BLUE SHALE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED.
30							RECOVERED 27"
32				1311	5.3	62	BLUE SILTSTONE, SLIGHTLY MOIST, NO APPARENT HC ODOR DETECTED.
34							TOTAL DEPTH - 31.5 FEET
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

### NOTES:



- SILTY SAND / SAND / SANDSTONE.

- SILTSTONE OR SHALE.

OVM

- Organic vapor meter or photoionization detector (PID).

ppm

- parts per million or milligram per kilogram (mg/Kg).

ND

- Not detected at laboratory reporting limit.

SAA

- Same as above.

TPH

- Total Petroleum Hydrocarbons.

GRO - Gasoline Range Organics; DRO - Diesel Range Organics;

MRO - Motor Oil Range Organics.

### OVM CALIBRATION:

100.0 ppm; RF = 1.00  
(RF = response factor).  
100 ppm calibration gas  
- isobutylene.  
Date - 01/12/2017.  
Time - 1115.

Monitor well consist of 2 inch PVC piping - casing from 3.00 ft. above grade to 26.50 ft. below grade (bg), 0.010 slotted screen between 26.50 to 31.50 ft. bg, 10/20 sand packed annular to 25.0 ft. bg, 60 sand packed annular to 24.0 ft. bg, bentonite chips between 22.0 to 24.0 ft. bg, hydrated with 5 gallons of water, grout remaining annular to grade. Secured casing top with steel protector, locking cap, and padlock.

# BORE / TEST HOLE REPORT

CLIENT: **BP AMERICA PRODUCTION CO.**  
LOCATION NAME: **FLORANCE GC J # 16A** API #: 3004521790 UNIT P, SEC. 6, T30N, R9W  
CONTRACTOR: **BLAGG ENGINEERING, INC. / YELLOWJACKET DRILLING**  
EQUIPMENT USED: **MOBILE DRILL RIG (CME 85) - HOLLOW STEM AUGER**  
BORING LOCATION: **36.83481 x 107.81602 (south of Williams excavation)**

BORING #..... **BH - 6**  
MW #..... **NA**  
PAGE #..... **6**  
DATE STARTED **01/12/2017**  
DATE FINISHED **01/12/2017**  
OPERATOR..... **SL**  
LOGGED BY..... **JCB**

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	SAMPLE TYPE	SAMPLE TIME	FIELD OVM (ppm)	LAB TPH (8015B) (GRO+DRO+MRO) (ppm)	FIELD CLASSIFICATION AND REMARKS
							GROUND SURFACE
2			cuttings		0.0		START TIME - 1017
4			↓	1019			DARK YELLOWISH ORANGE MEDIUM GRAINED SAND WITH SANDSTONE SHARDS, LIGHT MOISTURE, NO APPARENT HYDROCARBON (HC) ODOR DETECTED PHYSICALLY OR STAINING OBSERVED.
6			continuous core		0.0	ND	RECOVERED 25" SAA EXCEPT ALL SANDSTONE
8				1031			
10					0.1	ND	RECOVERED 25" SAA, SLIGHT INCREASE IN MOISTURE
12				1039			
14					0.9	ND	RECOVERED 24" SAA EXCEPT BOTTOM 6" HAD LIGHT HC ODOR, POSSIBLE STAINING.
16				1047			
18					2.5	ND	RECOVERED 16" TOP 10" SAA EXCEPT WITH INCREASE MOISTURE.
20				1100			BOTTOM 6" GRAY, STRONGER HC ODOR.
22					0.7	ND	RECOVERED 18" TOP 15" - LIGHT GRAY SANDSTONE, NO APPARENT HC ODOR, WATER4 SATURATED;
24				1108			BOTTOM 3" - CONSISTED OF BLUE SHALE WITH NO APPARENT HC ODOR.
26							
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

TOTAL DEPTH - 29 FEET

NOTES: Boring location approximately 12 feet below well pad ground surface.

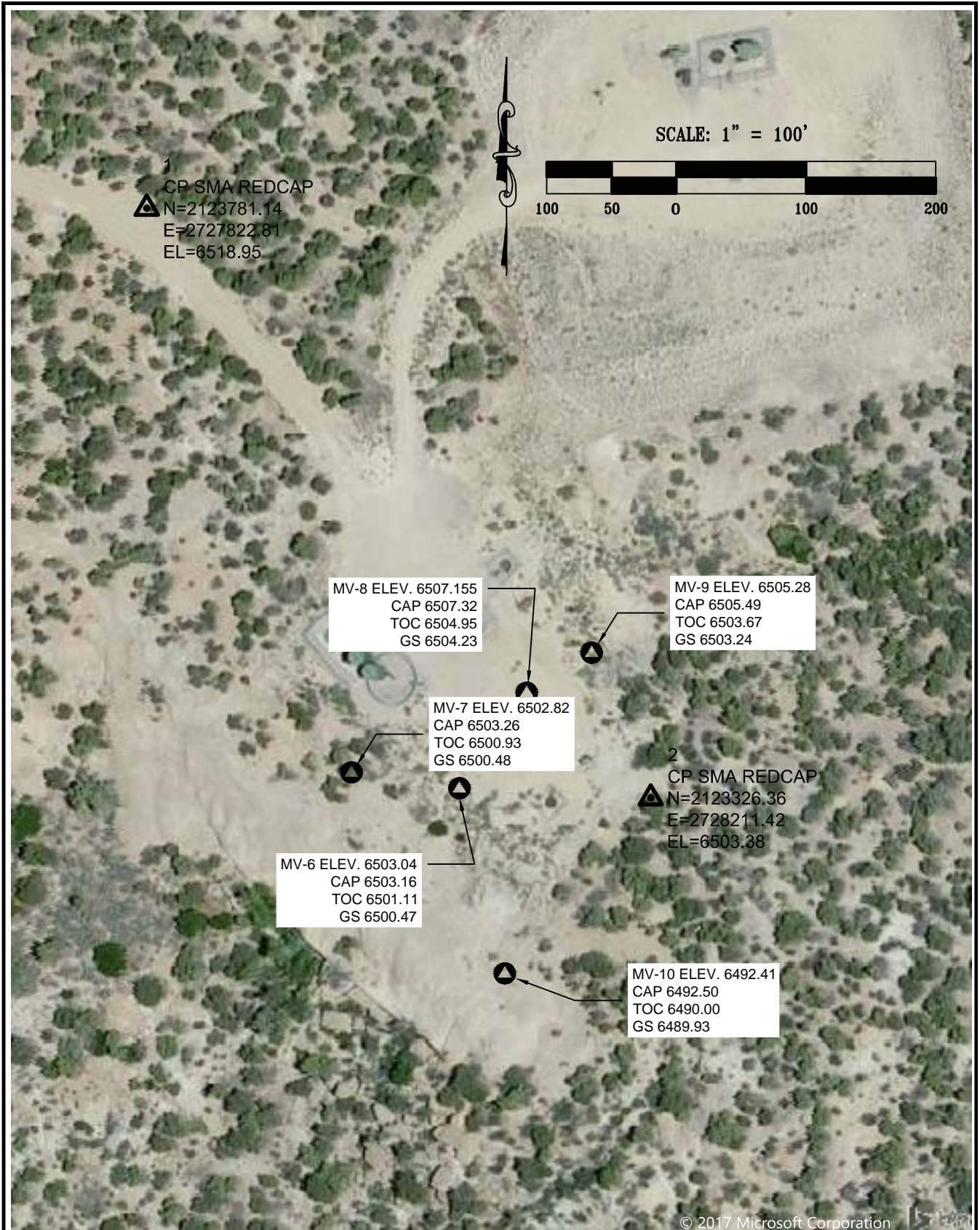
- SAND / SANDSTONE (all sandstone below 4 feet).
- SANDSTONE (discoloration).
- SHALE.

- OVM** - Organic vapor meter or photoionization detector (PID).
- ppm** - parts per million or milligram per kilogram (mg/Kg).
- ND** - Not detected at laboratory reporting limit.
- SAA** - Same as above.
- TPH** - Total Petroleum Hydrocarbons.

GRO - Gasoline Range Organics; DRO - Diesel Range Organics.  
MRO - Motor Oil Range Organics.

**OVM CALIBRATION:**  
100.0 ppm; RF = 1.00  
(RF = response factor).  
100 ppm calibration gas  
- isobutylene.  
Date - 01/12/2017.  
Time - 1115.

FIGURE 8




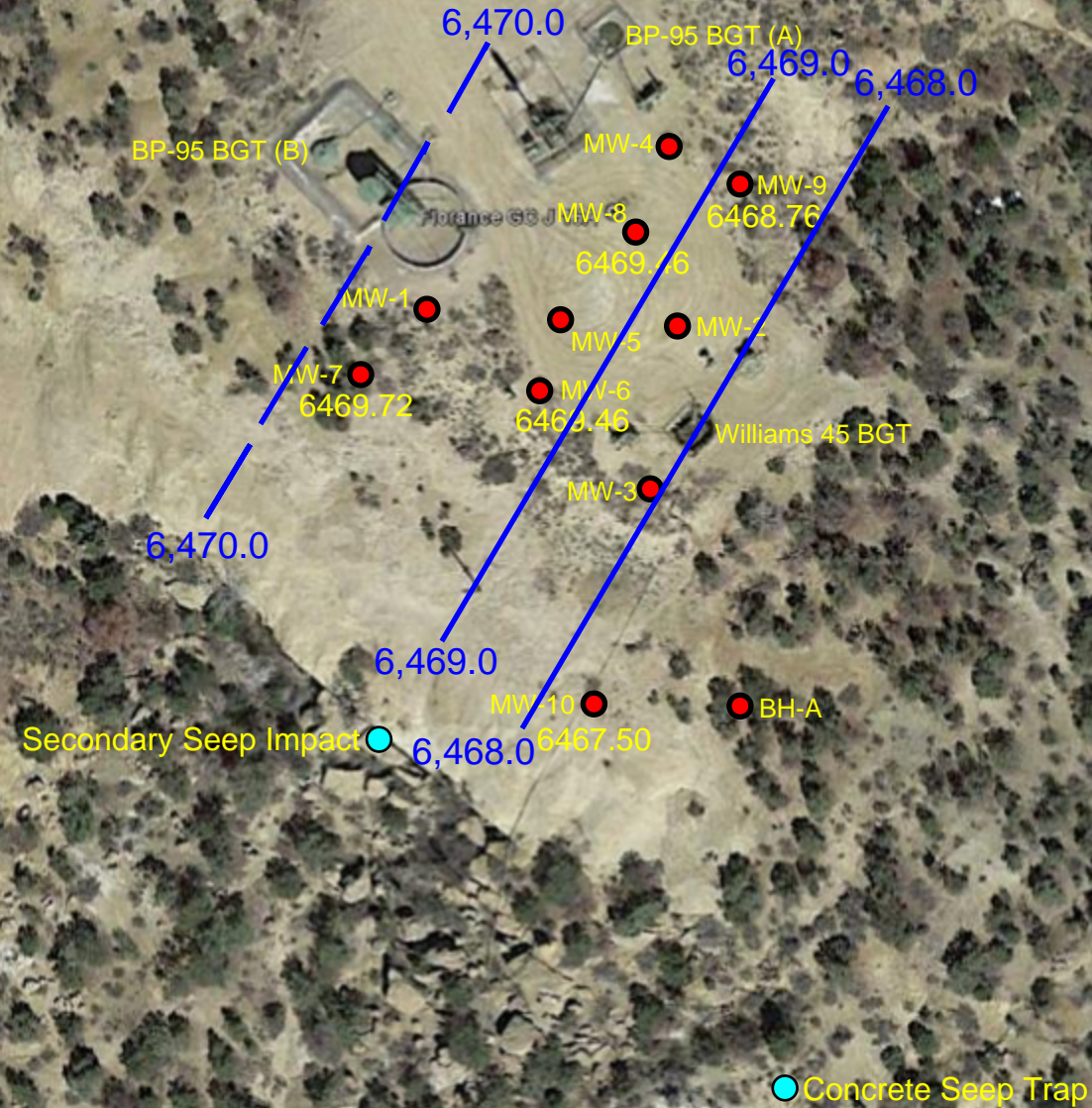
 <p><b>SOUDER, MILLER &amp; ASSOCIATES</b> 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045 Serving the Southwest &amp; Rocky Mountains www.soudermiller.com</p>	BP		Designed SA	Drawn KA	Checked SA
	BP FLORENCE GC J 16A MONITORING WELLS		Date: 03-17-2017		
			Scale: Horiz: 1" = 100' Vert: N/A		
			Project No: 212976		
			SHEET		



Figure 9: Gradient Map  
Florance GC J 16A  
March 3, 2017





# FIGURE 10 Florance GC J 16A

Iso Concentration Map - Total BTEX  
Monitor Wells #6 through #10 Only

## LEGEND

Sample Date: x/xx/2017

B = Benzene Concentration

T = Toluene Concentration

E = Ethyl-Benzene Concentration

X = Total Xylenes Concentration

ND = Not Detected

MW- 7  
1/17/2017  
B = ND  
T = ND  
E = ND  
X = 2.2 ppb

MW- 6  
1/17/2017  
B = 8.4 ppb  
T = 1.6 ppb  
E = 23 ppb  
X = 260 ppb

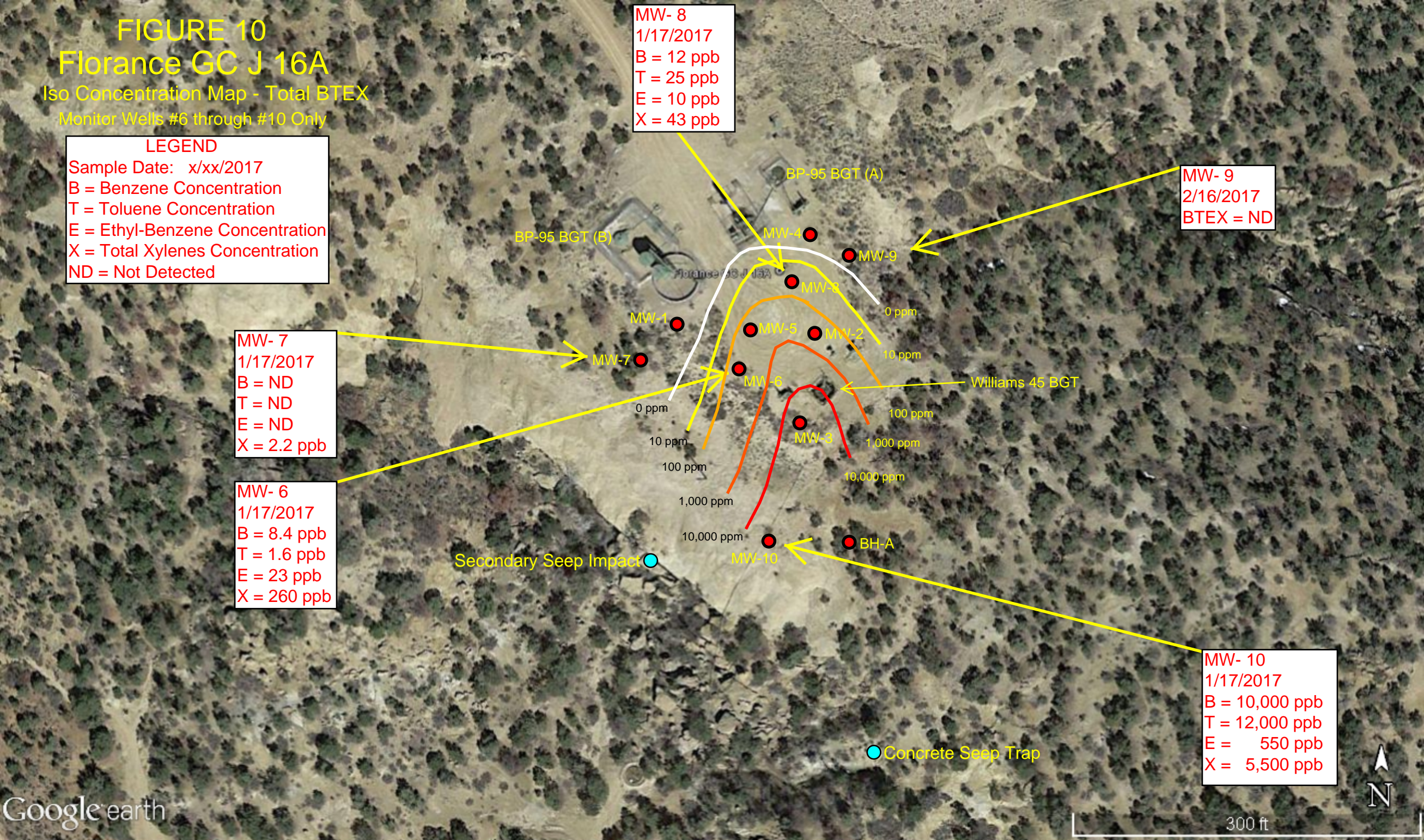
MW- 8  
1/17/2017  
B = 12 ppb  
T = 25 ppb  
E = 10 ppb  
X = 43 ppb

MW- 9  
2/16/2017  
BTEX = ND

MW- 10  
1/17/2017  
B = 10,000 ppb  
T = 12,000 ppb  
E = 550 ppb  
X = 5,500 ppb

Secondary Seep Impact

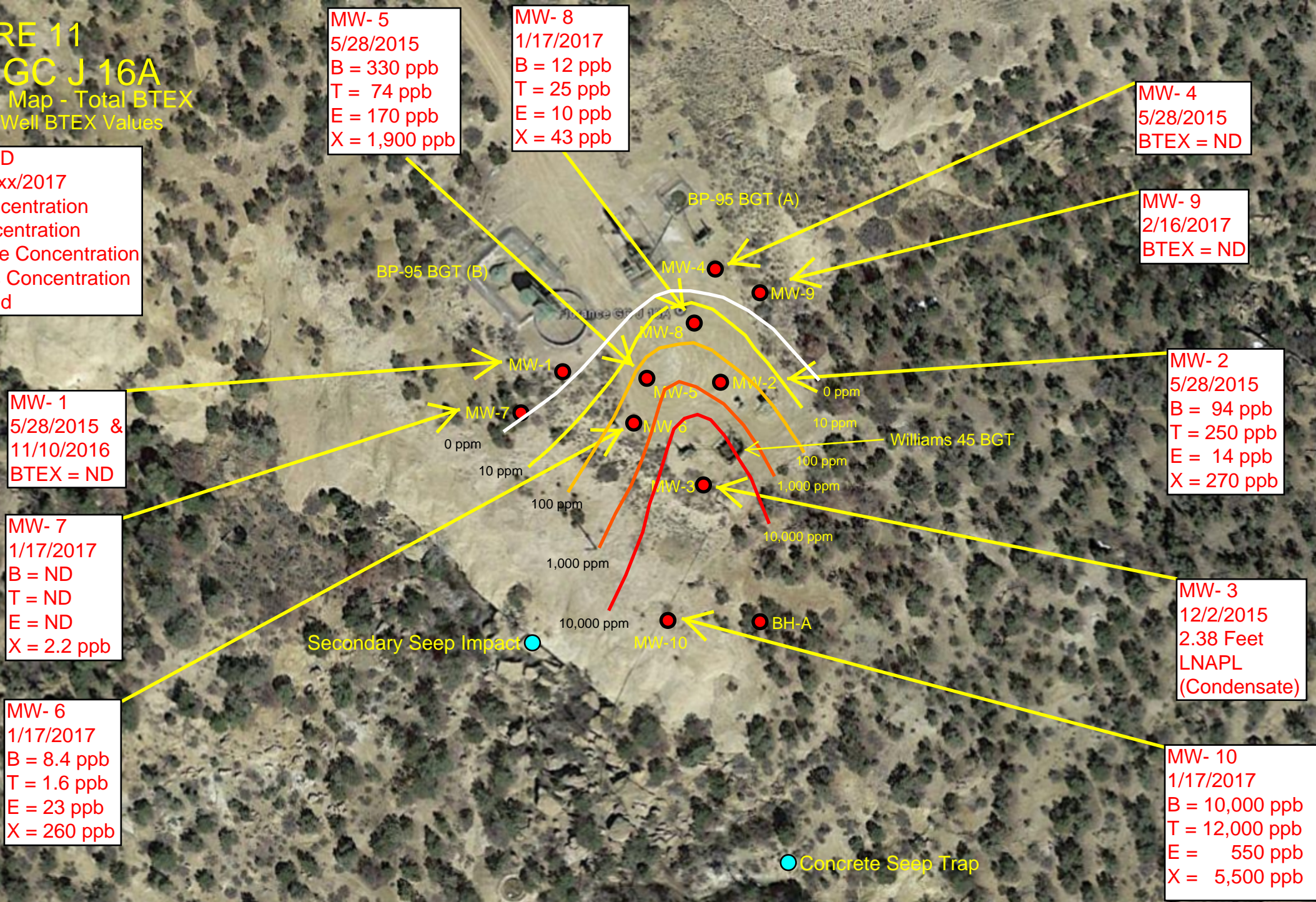
Concrete Seep Trap





**FIGURE 11**  
**Florance GC J 16A**  
 Iso Concentration Map - Total BTEX  
 Historical Monitor Well BTEX Values

**LEGEND**  
 Sample Date: x/xx/2017  
 B = Benzene Concentration  
 T = Toluene Concentration  
 E = Ethyl-Benzene Concentration  
 X = Total Xylenes Concentration  
 ND = Not Detected





## Appendix B

### Laboratory Analytical Data Reports



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

January 17, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florence GC J 16A

OrderNo.: 1701522

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/13/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701522

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (8'-9')

**Project:** Florence GC J 16A

**Collection Date:** 1/11/2017 4:19:00 PM

**Lab ID:** 1701522-001

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 1:04:23 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1600	20		mg/Kg	2	1/16/2017 5:08:58 PM	29675
Motor Oil Range Organics (MRO)	160	98		mg/Kg	2	1/16/2017 5:08:58 PM	29675
Surr: DNOP	108	70-130		%Rec	2	1/16/2017 5:08:58 PM	29675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	520	47		mg/Kg	10	1/14/2017 11:04:11 AM	29678
Surr: BFB	318	68.3-144	S	%Rec	10	1/14/2017 11:04:11 AM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.24		mg/Kg	10	1/14/2017 11:04:11 AM	29678
Toluene	ND	0.47		mg/Kg	10	1/14/2017 11:04:11 AM	29678
Ethylbenzene	ND	0.47		mg/Kg	10	1/14/2017 11:04:11 AM	29678
Xylenes, Total	13	0.94		mg/Kg	10	1/14/2017 11:04:11 AM	29678
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	10	1/14/2017 11:04:11 AM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701522

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (9-'14')

**Project:** Florence GC J 16A

**Collection Date:** 1/11/2017 4:24:00 PM

**Lab ID:** 1701522-002

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 1:41:37 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	2400	37		mg/Kg	4	1/16/2017 5:32:34 PM	29675
Motor Oil Range Organics (MRO)	330	190		mg/Kg	4	1/16/2017 5:32:34 PM	29675
Surr: DNOP	111	70-130		%Rec	4	1/16/2017 5:32:34 PM	29675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	980	50		mg/Kg	10	1/14/2017 12:38:36 PM	29678
Surr: BFB	452	68.3-144	S	%Rec	10	1/14/2017 12:38:36 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.25		mg/Kg	10	1/14/2017 12:38:36 PM	29678
Toluene	ND	0.50		mg/Kg	10	1/14/2017 12:38:36 PM	29678
Ethylbenzene	ND	0.50		mg/Kg	10	1/14/2017 12:38:36 PM	29678
Xylenes, Total	30	0.99		mg/Kg	10	1/14/2017 12:38:36 PM	29678
Surr: 4-Bromofluorobenzene	126	80-120	S	%Rec	10	1/14/2017 12:38:36 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701522

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (14'-19')

**Project:** Florence GC J 16A

**Collection Date:** 1/11/2017 4:34:00 PM

**Lab ID:** 1701522-003

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 1:54:01 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	2700	40		mg/Kg	4	1/16/2017 5:55:54 PM	29675
Motor Oil Range Organics (MRO)	360	200		mg/Kg	4	1/16/2017 5:55:54 PM	29675
Surr: DNOP	118	70-130		%Rec	4	1/16/2017 5:55:54 PM	29675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	1300	49		mg/Kg	10	1/14/2017 1:02:06 PM	29678
Surr: BFB	556	68.3-144	S	%Rec	10	1/14/2017 1:02:06 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.25		mg/Kg	10	1/14/2017 1:02:06 PM	29678
Toluene	ND	0.49		mg/Kg	10	1/14/2017 1:02:06 PM	29678
Ethylbenzene	2.8	0.49		mg/Kg	10	1/14/2017 1:02:06 PM	29678
Xylenes, Total	35	0.99		mg/Kg	10	1/14/2017 1:02:06 PM	29678
Surr: 4-Bromofluorobenzene	133	80-120	S	%Rec	10	1/14/2017 1:02:06 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701522

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (19'-24')

**Project:** Florence GC J 16A

**Collection Date:** 1/11/2017 4:43:00 PM

**Lab ID:** 1701522-004

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 2:06:25 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	3300	39		mg/Kg	4	1/16/2017 6:19:20 PM	29675
Motor Oil Range Organics (MRO)	380	200		mg/Kg	4	1/16/2017 6:19:20 PM	29675
Surr: DNOP	112	70-130		%Rec	4	1/16/2017 6:19:20 PM	29675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	1500	96		mg/Kg	20	1/14/2017 1:25:45 PM	29678
Surr: BFB	351	68.3-144	S	%Rec	20	1/14/2017 1:25:45 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.48		mg/Kg	20	1/14/2017 1:25:45 PM	29678
Toluene	ND	0.96		mg/Kg	20	1/14/2017 1:25:45 PM	29678
Ethylbenzene	3.3	0.96		mg/Kg	20	1/14/2017 1:25:45 PM	29678
Xylenes, Total	42	1.9		mg/Kg	20	1/14/2017 1:25:45 PM	29678
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	20	1/14/2017 1:25:45 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701522

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Project:** Florence GC J 16A

**Lab ID:** 1701522-005

**Matrix:** SOIL

**Client Sample ID:** MW-6 (24'-29')

**Collection Date:** 1/11/2017 4:53:00 PM

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 2:18:50 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1200	19		mg/Kg	2	1/16/2017 6:42:45 PM	29680
Motor Oil Range Organics (MRO)	140	95		mg/Kg	2	1/16/2017 6:42:45 PM	29680
Surr: DNOP	101	70-130		%Rec	2	1/16/2017 6:42:45 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	460	24		mg/Kg	5	1/14/2017 1:49:16 PM	29678
Surr: BFB	500	68.3-144	S	%Rec	5	1/14/2017 1:49:16 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	1/14/2017 1:49:16 PM	29678
Toluene	ND	0.24		mg/Kg	5	1/14/2017 1:49:16 PM	29678
Ethylbenzene	1.1	0.24		mg/Kg	5	1/14/2017 1:49:16 PM	29678
Xylenes, Total	10	0.49		mg/Kg	5	1/14/2017 1:49:16 PM	29678
Surr: 4-Bromofluorobenzene	131	80-120	S	%Rec	5	1/14/2017 1:49:16 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701522**

Date Reported: 1/17/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (29'-34')

**Project:** Florence GC J 16A

**Collection Date:** 1/12/2017 7:54:00 AM

**Lab ID:** 1701522-006

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 2:31:14 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1100	20		mg/Kg	2	1/16/2017 7:06:14 PM	29680
Motor Oil Range Organics (MRO)	140	99		mg/Kg	2	1/16/2017 7:06:14 PM	29680
Surr: DNOP	103	70-130		%Rec	2	1/16/2017 7:06:14 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	430	24		mg/Kg	5	1/14/2017 2:12:47 PM	29678
Surr: BFB	460	68.3-144	S	%Rec	5	1/14/2017 2:12:47 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	1/14/2017 2:12:47 PM	29678
Toluene	ND	0.24		mg/Kg	5	1/14/2017 2:12:47 PM	29678
Ethylbenzene	1.2	0.24		mg/Kg	5	1/14/2017 2:12:47 PM	29678
Xylenes, Total	10	0.49		mg/Kg	5	1/14/2017 2:12:47 PM	29678
Surr: 4-Bromofluorobenzene	128	80-120	S	%Rec	5	1/14/2017 2:12:47 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701522**

Date Reported: **1/17/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6 (34'-38')

**Project:** Florence GC J 16A

**Collection Date:** 1/12/2017 8:03:00 AM

**Lab ID:** 1701522-007

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 2:43:39 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/16/2017 7:29:32 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 7:29:32 PM	29680
Surr: DNOP	100	70-130		%Rec	1	1/16/2017 7:29:32 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/14/2017 2:36:15 PM	29678
Surr: BFB	100	68.3-144		%Rec	1	1/14/2017 2:36:15 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	1/14/2017 2:36:15 PM	29678
Toluene	ND	0.046		mg/Kg	1	1/14/2017 2:36:15 PM	29678
Ethylbenzene	ND	0.046		mg/Kg	1	1/14/2017 2:36:15 PM	29678
Xylenes, Total	ND	0.093		mg/Kg	1	1/14/2017 2:36:15 PM	29678
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	1/14/2017 2:36:15 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701522

17-Jan-17

Client: Blagg Engineering

Project: Florence GC J 16A

Sample ID	MB-29704		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29704		RunNo:	40057				
Prep Date:	1/16/2017		Analysis Date:	1/16/2017		SeqNo:	1255351		Units:		mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29704		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29704		RunNo: 40057					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1255352		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701522

17-Jan-17

Client: Blagg Engineering

Project: Florence GC J 16A

Sample ID	LCS-29675		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29675		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254698		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.4	63.8	116			
Surr: DNOP	4.6		5.000		92.8	70	130			

Sample ID	MB-29675		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29675		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254699		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.6	70	130			

Sample ID	MB-29674		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254788		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29680		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254791		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	90.6	63.8	116			
Surr: DNOP	4.8		5.000		95.1	70	130			

Sample ID	MB-29680		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254792		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.9	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701522

17-Jan-17

Client: Blagg Engineering

Project: Florence GC J 16A

Sample ID	LCS-29674		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254824		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701522

17-Jan-17

Client: Blagg Engineering

Project: Florence GC J 16A

Sample ID	MB-29678		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	29678		RunNo:	40009				
Prep Date:	1/13/2017		Analysis Date:	1/14/2017		SeqNo:	1253705		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	860		1000		86.2	68.3	144				

Sample ID	LCS-29678		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29678		RunNo: 40009					
Prep Date:	1/13/2017		Analysis Date: 1/14/2017		SeqNo: 1253706		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	74.6	123			
Surr: BFB	950		1000		95.3	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701522

17-Jan-17

Client: Blagg Engineering

Project: Florence GC J 16A

Sample ID	<b>MB-29678</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29678</b>		RunNo:	<b>40009</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/14/2017</b>		SeqNo:	<b>1253745</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	<b>LCS-29678</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29678</b>		RunNo:	<b>40009</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/14/2017</b>		SeqNo:	<b>1253746</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	75.2	115			
Toluene	0.97	0.050	1.000	0	96.8	80.7	112			
Ethylbenzene	0.92	0.050	1.000	0	92.3	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	92.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Sample ID	<b>1701522-001AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>MW-6 (8'-9')</b>		Batch ID:	<b>29678</b>		RunNo:	<b>40009</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/14/2017</b>		SeqNo:	<b>1253750</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.25	0.9843	0.09915	88.8	61.5	138			
Toluene	1.1	0.49	0.9843	0	112	71.4	127			
Ethylbenzene	1.5	0.49	0.9843	0	152	70.9	132			S
Xylenes, Total	18	0.98	2.953	13.17	154	76.2	123			S
Surr: 4-Bromofluorobenzene	12		9.843		119	80	120			

Sample ID	<b>1701522-001AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>MW-6 (8'-9')</b>		Batch ID:	<b>29678</b>		RunNo:	<b>40009</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/14/2017</b>		SeqNo:	<b>1253751</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.24	0.9524	0.09915	105	61.5	138	12.6	20	
Toluene	1.1	0.48	0.9524	0	119	71.4	127	3.01	20	
Ethylbenzene	1.5	0.48	0.9524	0	157	70.9	132	0.146	20	S
Xylenes, Total	18	0.95	2.857	13.17	152	76.2	123	1.19	20	S
Surr: 4-Bromofluorobenzene	11		9.524		117	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701522**

RcptNo: **1**

Received by/date:

*[Signature]*

*01/13/17*

Logged By: **Lindsay Mangin**

1/13/2017 7:20:00 AM

*[Signature]*

Completed By: **Lindsay Mangin**

1/13/2017 8:20:59 AM

*[Signature]*

Reviewed By: *La 01/13/17*

### 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: \_\_\_\_\_

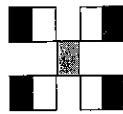
17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

# Chain-of-Custody Record

Client: <b>BP America</b>	Turn-Around Time: <b>By 1/10/2017</b>
Project Name: <b>Butab Engineering</b>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush
Project Address: <b>505-320-1103</b>	Project #: <b>FLORANZ GC J 16A</b>
Phone #: <b>505-320-1103</b>	Project Manager: <b>J. Butab</b>
Mail or Fax#: <b>505-320-1103</b>	Sampler: <b>J. Butab</b>
A/QC Package: <b>Level 4 (Full Validation)</b>	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Standard <input type="checkbox"/> Level 4 (Full Validation)	Sample Temperature: <b>2.1</b>
Other <input type="checkbox"/> Other	Container Type and #
EDD (Type)	Preservative Type
Date	HEAL No.
1/7 1619	403-1
1/7 1624	"
1/7 1634	"
1/7 1643	"
1/7 1653	"
1/7 0754	"
1/7 0803	"
Time: 0754	
Relinquished by: <b>Jeff Bogg</b>	Received by: <b>Chad Wade</b>
Time: 1635	Date: 1/10/2017
Relinquished by: <b>Chad Wade</b>	Date: 01/13/2017
Time: 1812	



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

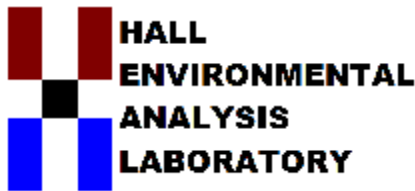
4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + THMs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	CHLORINE	Air Bubbles (Y or N)
X	X	X	X								X	
X	X	X	X								X	
X	X	X	X								X	
X	X	X	X								X	
X	X	X	X								X	
X	X	X	X								X	
X	X	X	X								X	

Remarks: <b>Bill BP</b> <b>Contract: Steve Moshier</b> <b>VID: VHLXONENRAN</b>
--



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

January 20, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701529

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/13/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7 (3 1/2-8 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 1:03:00 PM

**Lab ID:** 1701529-001

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 12:57:35 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/16/2017 7:52:57 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 7:52:57 PM	29680
Surr: DNOP	92.2	70-130		%Rec	1	1/16/2017 7:52:57 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/15/2017 8:22:00 PM	29679
Surr: BFB	90.1	68.3-144		%Rec	1	1/15/2017 8:22:00 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 8:22:00 PM	29679
Toluene	ND	0.047		mg/Kg	1	1/15/2017 8:22:00 PM	29679
Ethylbenzene	ND	0.047		mg/Kg	1	1/15/2017 8:22:00 PM	29679
Xylenes, Total	ND	0.095		mg/Kg	1	1/15/2017 8:22:00 PM	29679
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	1/15/2017 8:22:00 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701529-002

**Matrix:** SOIL

**Client Sample ID:** MW-7 (8 1/2-13 1/2)

**Collection Date:** 1/11/2017 1:13:00 PM

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 1:34:49 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	62	9.7		mg/Kg	1	1/16/2017 8:16:14 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 8:16:14 PM	29680
Surr: DNOP	97.0	70-130		%Rec	1	1/16/2017 8:16:14 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/15/2017 8:45:17 PM	29679
Surr: BFB	119	68.3-144		%Rec	1	1/15/2017 8:45:17 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 8:45:17 PM	29679
Toluene	ND	0.049		mg/Kg	1	1/15/2017 8:45:17 PM	29679
Ethylbenzene	ND	0.049		mg/Kg	1	1/15/2017 8:45:17 PM	29679
Xylenes, Total	ND	0.099		mg/Kg	1	1/15/2017 8:45:17 PM	29679
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	1/15/2017 8:45:17 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7 (13 1/2-18 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 1:21:00 PM

**Lab ID:** 1701529-003

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 1:47:13 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2017 8:39:33 PM	29680
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/16/2017 8:39:33 PM	29680
Surr: DNOP	98.6	70-130		%Rec	1	1/16/2017 8:39:33 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/15/2017 9:08:34 PM	29679
Surr: BFB	86.9	68.3-144		%Rec	1	1/15/2017 9:08:34 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 9:08:34 PM	29679
Toluene	ND	0.048		mg/Kg	1	1/15/2017 9:08:34 PM	29679
Ethylbenzene	ND	0.048		mg/Kg	1	1/15/2017 9:08:34 PM	29679
Xylenes, Total	ND	0.095		mg/Kg	1	1/15/2017 9:08:34 PM	29679
Surr: 4-Bromofluorobenzene	92.3	80-120		%Rec	1	1/15/2017 9:08:34 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701529-004

**Client Sample ID:** MW-7 (18 1/2-23 1/2)

**Collection Date:** 1/11/2017 1:29:00 PM

**Received Date:** 1/13/2017 7:20:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 1:59:38 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	9.7	9.4		mg/Kg	1	1/16/2017 9:02:43 PM	29680
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 9:02:43 PM	29680
Surr: DNOP	96.6	70-130		%Rec	1	1/16/2017 9:02:43 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/15/2017 9:31:52 PM	29679
Surr: BFB	84.6	68.3-144		%Rec	1	1/15/2017 9:31:52 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 9:31:52 PM	29679
Toluene	ND	0.049		mg/Kg	1	1/15/2017 9:31:52 PM	29679
Ethylbenzene	ND	0.049		mg/Kg	1	1/15/2017 9:31:52 PM	29679
Xylenes, Total	ND	0.098		mg/Kg	1	1/15/2017 9:31:52 PM	29679
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	1	1/15/2017 9:31:52 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701529**

Date Reported: **1/20/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7 (23 1/2-28 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 1:39:00 PM

**Lab ID:** 1701529-005

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 2:12:03 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/16/2017 9:26:08 PM	29680
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/16/2017 9:26:08 PM	29680
Surr: DNOP	96.6	70-130		%Rec	1	1/16/2017 9:26:08 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/15/2017 9:55:06 PM	29679
Surr: BFB	82.5	68.3-144		%Rec	1	1/15/2017 9:55:06 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 9:55:06 PM	29679
Toluene	ND	0.050		mg/Kg	1	1/15/2017 9:55:06 PM	29679
Ethylbenzene	ND	0.050		mg/Kg	1	1/15/2017 9:55:06 PM	29679
Xylenes, Total	ND	0.10		mg/Kg	1	1/15/2017 9:55:06 PM	29679
Surr: 4-Bromofluorobenzene	86.9	80-120		%Rec	1	1/15/2017 9:55:06 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701529-006

**Client Sample ID:** MW-7 (28 1/2-33 1/2)

**Collection Date:** 1/11/2017 1:47:00 PM

**Received Date:** 1/13/2017 7:20:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 2:24:28 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	24	9.5		mg/Kg	1	1/16/2017 9:49:28 PM	29680
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/16/2017 9:49:28 PM	29680
Surr: DNOP	96.8	70-130		%Rec	1	1/16/2017 9:49:28 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/15/2017 10:18:18 PM	29679
Surr: BFB	105	68.3-144		%Rec	1	1/15/2017 10:18:18 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	1/15/2017 10:18:18 PM	29679
Toluene	ND	0.046		mg/Kg	1	1/15/2017 10:18:18 PM	29679
Ethylbenzene	ND	0.046		mg/Kg	1	1/15/2017 10:18:18 PM	29679
Xylenes, Total	ND	0.092		mg/Kg	1	1/15/2017 10:18:18 PM	29679
Surr: 4-Bromofluorobenzene	90.3	80-120		%Rec	1	1/15/2017 10:18:18 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701529-007

**Matrix:** SOIL

**Client Sample ID:** MW-7 (33 1/2-38 1/2)

**Collection Date:** 1/11/2017 2:05:00 PM

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 2:36:53 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/16/2017 10:12:52 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 10:12:52 PM	29680
Surr: DNOP	92.5	70-130		%Rec	1	1/16/2017 10:12:52 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/15/2017 10:41:27 PM	29679
Surr: BFB	84.0	68.3-144		%Rec	1	1/15/2017 10:41:27 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 10:41:27 PM	29679
Toluene	ND	0.048		mg/Kg	1	1/15/2017 10:41:27 PM	29679
Ethylbenzene	ND	0.048		mg/Kg	1	1/15/2017 10:41:27 PM	29679
Xylenes, Total	ND	0.096		mg/Kg	1	1/15/2017 10:41:27 PM	29679
Surr: 4-Bromofluorobenzene	88.5	80-120		%Rec	1	1/15/2017 10:41:27 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701529

Date Reported: 1/20/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7 (38 1/2-40)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 2:16:00 PM

**Lab ID:** 1701529-008

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 2:49:18 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/16/2017 10:36:03 PM	29680
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/16/2017 10:36:03 PM	29680
Surr: DNOP	99.9	70-130		%Rec	1	1/16/2017 10:36:03 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/15/2017 11:04:40 PM	29679
Surr: BFB	82.9	68.3-144		%Rec	1	1/15/2017 11:04:40 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 11:04:40 PM	29679
Toluene	ND	0.048		mg/Kg	1	1/15/2017 11:04:40 PM	29679
Ethylbenzene	ND	0.048		mg/Kg	1	1/15/2017 11:04:40 PM	29679
Xylenes, Total	ND	0.096		mg/Kg	1	1/15/2017 11:04:40 PM	29679
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	1	1/15/2017 11:04:40 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701529

20-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29774		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29774		RunNo:	40130				
Prep Date:	1/18/2017		Analysis Date:	1/18/2017		SeqNo:	1257870		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29774		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29774		RunNo: 40130					
Prep Date:	1/18/2017		Analysis Date: 1/18/2017		SeqNo: 1257871		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701529

20-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29674		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254788		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29680		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254791		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	90.6	63.8	116			
Surr: DNOP	4.8		5.000		95.1	70	130			

Sample ID	MB-29680	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 29680			RunNo: 40029					
Prep Date:	1/13/2017	Analysis Date: 1/16/2017			SeqNo: 1254792		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.9	70	130			

Sample ID	LCS-29674		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254824		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701529

20-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29679		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253875		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		85.0	68.3	144			

Sample ID	LCS-29679		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253876		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	105	74.6	123			
Surr: BFB	940		1000		94.4	68.3	144			

Sample ID	1701529-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MW-7 (8 1/2-13 1/2)		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253879		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.7	23.36	4.733	91.8	61.3	150			
Surr: BFB	1100		934.6		115	68.3	144			

Sample ID	1701529-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	MW-7 (8 1/2-13 1/2)		Batch ID:	29679		RunNo:	40013				
Prep Date:	1/13/2017		Analysis Date:	1/15/2017		SeqNo:	1253880		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	4.8	23.99	4.733	88.4	61.3	150	0.945	20		
Surr: BFB	1000		959.7		108	68.3	144	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701529

20-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	<b>MB-29679</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29679</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253918</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	<b>LCS-29679</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29679</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253919</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	75.2	115			
Toluene	0.93	0.050	1.000	0	93.1	80.7	112			
Ethylbenzene	0.91	0.050	1.000	0	90.9	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	90.0	79.2	115			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Sample ID	<b>1701529-001AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>MW-7 (3 1/2-8 1/2)</b>		Batch ID:	<b>29679</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253921</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9470	0	105	61.5	138			
Toluene	0.89	0.047	0.9470	0	93.7	71.4	127			
Ethylbenzene	0.87	0.047	0.9470	0	91.5	70.9	132			
Xylenes, Total	2.6	0.095	2.841	0.02292	90.8	76.2	123			
Surr: 4-Bromofluorobenzene	0.92		0.9470		96.9	80	120			

Sample ID	<b>1701529-001AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>MW-7 (3 1/2-8 1/2)</b>		Batch ID:	<b>29679</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/13/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253922</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9662	0	105	61.5	138	2.17	20	
Toluene	0.92	0.048	0.9662	0	95.6	71.4	127	4.03	20	
Ethylbenzene	0.90	0.048	0.9662	0	93.0	70.9	132	3.62	20	
Xylenes, Total	2.7	0.097	2.899	0.02292	93.2	76.2	123	4.59	20	
Surr: 4-Bromofluorobenzene	0.93		0.9662		96.7	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701529**

RcptNo: **1**

Received by/date:

01/13/17

Logged By: **Lindsay Mangin**

1/13/2017 7:20:00 AM

Completed By: **Lindsay Mangin**

1/13/2017 8:42:37 AM

Reviewed By:

01/13/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			



# Chain-of-Custody Record

Client: BP AMERICA  
BLAKE ENGINEERS  
 Mailing Address:

Phone #: 505-320-1183

email or Fax#:

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

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Date	Time	Matrix	Sample Request ID
11/20/17	1303	Soil	MW-7(31-81)
"	1313	"	MW-7(81-131)
"	1321	"	MW-7(131-181)
"	1329	"	MW-7(181-231)
"	1339	"	MW-7(231-281)
"	1347	"	MW-7(281-331)
"	1405	"	MW-7(331-381)
"	1416	"	MW-7(381-40)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

FLORANCE GC J 16A

Project #:

Project Manager:

J. Bagg

Sampler: J. Bagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

Container Type and #	Preservative Type	HEAL No.
4oz x1	cap	1701529
"	"	-001
"	"	-002
"	"	-003
"	"	-004
"	"	-005
"	"	-006
"	"	-007
"	"	-008

Date: 11/20/17 Time: 1337

Relinquished by: J. Bagg

Date: 11/21/17 Time: 1812

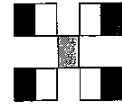
Relinquished by: Christina Warden

Received by:

Christina Bagg Date: 11/21/17 Time: 1337

Received by:

[Signature] Date: 01/13/17 Time: 0720



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + THMs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X

Remarks: BILL BP

CONTACT: STEVE MOSKAL

VID: VHXKOWEURM



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

January 18, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701388

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/11/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701388

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8 (5'-9')

**Project:** Florance GC J 16A

**Collection Date:** 1/10/2017 1:04:00 PM

**Lab ID:** 1701388-001

**Matrix:** SOIL

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 2:31:52 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	20	9.5		mg/Kg	1	1/12/2017 5:15:37 PM	29649
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/12/2017 5:15:37 PM	29649
Surr: DNOP	113	70-130		%Rec	1	1/12/2017 5:15:37 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	87	4.7		mg/Kg	1	1/12/2017 8:29:14 PM	29643
Surr: BFB	527	68.3-144	S	%Rec	1	1/12/2017 8:29:14 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/12/2017 8:29:14 PM	29643
Toluene	ND	0.047		mg/Kg	1	1/12/2017 8:29:14 PM	29643
Ethylbenzene	ND	0.047		mg/Kg	1	1/12/2017 8:29:14 PM	29643
Xylenes, Total	0.30	0.094		mg/Kg	1	1/12/2017 8:29:14 PM	29643
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	1	1/12/2017 8:29:14 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701388

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8 (9'-14')

**Project:** Florance GC J 16A

**Collection Date:** 1/10/2017 1:13:00 PM

**Lab ID:** 1701388-002

**Matrix:** SOIL

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:09:05 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/12/2017 5:43:06 PM	29649
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/12/2017 5:43:06 PM	29649
Surr: DNOP	109	70-130		%Rec	1	1/12/2017 5:43:06 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/12/2017 8:52:41 PM	29643
Surr: BFB	101	68.3-144		%Rec	1	1/12/2017 8:52:41 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/12/2017 8:52:41 PM	29643
Toluene	ND	0.049		mg/Kg	1	1/12/2017 8:52:41 PM	29643
Ethylbenzene	ND	0.049		mg/Kg	1	1/12/2017 8:52:41 PM	29643
Xylenes, Total	ND	0.098		mg/Kg	1	1/12/2017 8:52:41 PM	29643
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	1/12/2017 8:52:41 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701388

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701388-003

**Matrix:** SOIL

**Client Sample ID:** MW-8 (14'-19')

**Collection Date:** 1/10/2017 1:21:00 PM

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:21:29 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	78	9.8		mg/Kg	1	1/12/2017 6:10:37 PM	29649
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/12/2017 6:10:37 PM	29649
Surr: DNOP	111	70-130		%Rec	1	1/12/2017 6:10:37 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	23	4.9		mg/Kg	1	1/12/2017 9:16:07 PM	29643
Surr: BFB	228	68.3-144	S	%Rec	1	1/12/2017 9:16:07 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/12/2017 9:16:07 PM	29643
Toluene	ND	0.049		mg/Kg	1	1/12/2017 9:16:07 PM	29643
Ethylbenzene	ND	0.049		mg/Kg	1	1/12/2017 9:16:07 PM	29643
Xylenes, Total	0.27	0.097		mg/Kg	1	1/12/2017 9:16:07 PM	29643
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	1/12/2017 9:16:07 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701388**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8 (19'-24')

**Project:** Florance GC J 16A

**Collection Date:** 1/10/2017 1:32:00 PM

**Lab ID:** 1701388-004

**Matrix:** SOIL

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	33	30		mg/Kg	20	1/17/2017 3:33:53 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/12/2017 6:38:06 PM	29649
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/12/2017 6:38:06 PM	29649
Surr: DNOP	109	70-130		%Rec	1	1/12/2017 6:38:06 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/12/2017 9:39:33 PM	29643
Surr: BFB	94.7	68.3-144		%Rec	1	1/12/2017 9:39:33 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/12/2017 9:39:33 PM	29643
Toluene	ND	0.049		mg/Kg	1	1/12/2017 9:39:33 PM	29643
Ethylbenzene	ND	0.049		mg/Kg	1	1/12/2017 9:39:33 PM	29643
Xylenes, Total	ND	0.098		mg/Kg	1	1/12/2017 9:39:33 PM	29643
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	1/12/2017 9:39:33 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701388

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8 (24'-29')

**Project:** Florance GC J 16A

**Collection Date:** 1/10/2017 1:44:00 PM

**Lab ID:** 1701388-005

**Matrix:** SOIL

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:46:18 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/12/2017 7:05:40 PM	29649
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/12/2017 7:05:40 PM	29649
Surr: DNOP	107	70-130		%Rec	1	1/12/2017 7:05:40 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/12/2017 10:03:02 PM	29643
Surr: BFB	91.9	68.3-144		%Rec	1	1/12/2017 10:03:02 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	1/12/2017 10:03:02 PM	29643
Toluene	ND	0.047		mg/Kg	1	1/12/2017 10:03:02 PM	29643
Ethylbenzene	ND	0.047		mg/Kg	1	1/12/2017 10:03:02 PM	29643
Xylenes, Total	ND	0.093		mg/Kg	1	1/12/2017 10:03:02 PM	29643
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	1/12/2017 10:03:02 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701388

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8 (29'-34')

**Project:** Florance GC J 16A

**Collection Date:** 1/10/2017 1:52:00 PM

**Lab ID:** 1701388-006

**Matrix:** SOIL

**Received Date:** 1/11/2017 8:43:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 3:58:43 PM	29731
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/12/2017 7:33:09 PM	29649
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/12/2017 7:33:09 PM	29649
Surr: DNOP	118	70-130		%Rec	1	1/12/2017 7:33:09 PM	29649
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/12/2017 10:49:58 PM	29643
Surr: BFB	90.6	68.3-144		%Rec	1	1/12/2017 10:49:58 PM	29643
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/12/2017 10:49:58 PM	29643
Toluene	ND	0.048		mg/Kg	1	1/12/2017 10:49:58 PM	29643
Ethylbenzene	ND	0.048		mg/Kg	1	1/12/2017 10:49:58 PM	29643
Xylenes, Total	ND	0.095		mg/Kg	1	1/12/2017 10:49:58 PM	29643
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	1/12/2017 10:49:58 PM	29643

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701388

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29731		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29731		RunNo:	40098				
Prep Date:	1/17/2017		Analysis Date:	1/17/2017		SeqNo:	1256752		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29731		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29731		RunNo: 40098					
Prep Date:	1/17/2017		Analysis Date: 1/17/2017		SeqNo: 1256753		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701388

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29649		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29649		RunNo: 39978					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1252783		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	96.0	63.8	116			
Surr: DNOP	6.0		5.000		119	70	130			

Sample ID	MB-29649		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29649		RunNo: 39978					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1252784		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701388

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29643		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253022		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	860		1000		85.7	68.3	144			

Sample ID	LCS-29643		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253023		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	74.6	123			
Surr: BFB	970		1000		97.3	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701388

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29643		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253047		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	80	120			

Sample ID	LCS-29643		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29643		RunNo: 39980					
Prep Date:	1/11/2017		Analysis Date: 1/12/2017		SeqNo: 1253048		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	112	75.2	115			
Toluene	1.0	0.050	1.000	0	104	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.9	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	98.3	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1701388

RcptNo: 1

Received by/date: LM 01/11/17

Logged By: Andy Jansson 1/11/2017 8:43:00 AM

Completed By: Andy Jansson 01/11/17

Reviewed By: [Signature] 01/11/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			





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

January 23, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701532

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/13/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701532**

Date Reported: **1/23/2017**

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701532-001

**Matrix:** SOIL

**Client Sample ID:** MW-9 (3 1/2-8 1/2)

**Collection Date:** 1/11/2017 8:47:00 AM

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 3:26:31 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/16/2017 11:18:57 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 11:18:57 PM	29680
Surr: DNOP	111	70-130		%Rec	1	1/16/2017 11:18:57 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/15/2017 11:27:51 PM	29679
Surr: BFB	83.5	68.3-144		%Rec	1	1/15/2017 11:27:51 PM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 11:27:51 PM	29679
Toluene	ND	0.047		mg/Kg	1	1/15/2017 11:27:51 PM	29679
Ethylbenzene	ND	0.047		mg/Kg	1	1/15/2017 11:27:51 PM	29679
Xylenes, Total	ND	0.094		mg/Kg	1	1/15/2017 11:27:51 PM	29679
Surr: 4-Bromofluorobenzene	90.1	80-120		%Rec	1	1/15/2017 11:27:51 PM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701532

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (8 1/2-13 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 8:57:00 AM

**Lab ID:** 1701532-002

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 3:38:55 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/16/2017 11:46:37 PM	29680
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/16/2017 11:46:37 PM	29680
Surr: DNOP	112	70-130		%Rec	1	1/16/2017 11:46:37 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/16/2017 1:00:32 AM	29679
Surr: BFB	83.4	68.3-144		%Rec	1	1/16/2017 1:00:32 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/16/2017 1:00:32 AM	29679
Toluene	ND	0.050		mg/Kg	1	1/16/2017 1:00:32 AM	29679
Ethylbenzene	ND	0.050		mg/Kg	1	1/16/2017 1:00:32 AM	29679
Xylenes, Total	ND	0.099		mg/Kg	1	1/16/2017 1:00:32 AM	29679
Surr: 4-Bromofluorobenzene	88.0	80-120		%Rec	1	1/16/2017 1:00:32 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701532

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (13 1/2-18 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 9:07:00 AM

**Lab ID:** 1701532-003

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 3:51:20 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/16/2017 5:22:13 PM	29681
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 5:22:13 PM	29681
Surr: DNOP	118	70-130		%Rec	1	1/16/2017 5:22:13 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/16/2017 1:23:42 AM	29679
Surr: BFB	83.0	68.3-144		%Rec	1	1/16/2017 1:23:42 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/16/2017 1:23:42 AM	29679
Toluene	ND	0.047		mg/Kg	1	1/16/2017 1:23:42 AM	29679
Ethylbenzene	ND	0.047		mg/Kg	1	1/16/2017 1:23:42 AM	29679
Xylenes, Total	ND	0.095		mg/Kg	1	1/16/2017 1:23:42 AM	29679
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	1	1/16/2017 1:23:42 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701532

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (18 1/2-23 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 9:15:00 AM

**Lab ID:** 1701532-004

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 4:03:45 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/16/2017 6:44:50 PM	29681
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/16/2017 6:44:50 PM	29681
Surr: DNOP	117	70-130		%Rec	1	1/16/2017 6:44:50 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/16/2017 1:46:57 AM	29679
Surr: BFB	82.9	68.3-144		%Rec	1	1/16/2017 1:46:57 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/16/2017 1:46:57 AM	29679
Toluene	ND	0.047		mg/Kg	1	1/16/2017 1:46:57 AM	29679
Ethylbenzene	ND	0.047		mg/Kg	1	1/16/2017 1:46:57 AM	29679
Xylenes, Total	ND	0.095		mg/Kg	1	1/16/2017 1:46:57 AM	29679
Surr: 4-Bromofluorobenzene	86.1	80-120		%Rec	1	1/16/2017 1:46:57 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701532**

Date Reported: **1/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (23 1/2-28 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 9:23:00 AM

**Lab ID:** 1701532-005

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 4:16:09 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	1/16/2017 7:12:20 PM	29681
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/16/2017 7:12:20 PM	29681
Surr: DNOP	117	70-130		%Rec	1	1/16/2017 7:12:20 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/16/2017 2:10:08 AM	29679
Surr: BFB	83.3	68.3-144		%Rec	1	1/16/2017 2:10:08 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/16/2017 2:10:08 AM	29679
Toluene	ND	0.049		mg/Kg	1	1/16/2017 2:10:08 AM	29679
Ethylbenzene	ND	0.049		mg/Kg	1	1/16/2017 2:10:08 AM	29679
Xylenes, Total	ND	0.097		mg/Kg	1	1/16/2017 2:10:08 AM	29679
Surr: 4-Bromofluorobenzene	87.9	80-120		%Rec	1	1/16/2017 2:10:08 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701532**

Date Reported: **1/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (28 1/2-33 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 9:33:00 AM

**Lab ID:** 1701532-006

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 4:28:34 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/16/2017 7:39:49 PM	29681
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 7:39:49 PM	29681
Surr: DNOP	114	70-130		%Rec	1	1/16/2017 7:39:49 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/16/2017 2:33:14 AM	29679
Surr: BFB	82.1	68.3-144		%Rec	1	1/16/2017 2:33:14 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/16/2017 2:33:14 AM	29679
Toluene	ND	0.048		mg/Kg	1	1/16/2017 2:33:14 AM	29679
Ethylbenzene	ND	0.048		mg/Kg	1	1/16/2017 2:33:14 AM	29679
Xylenes, Total	ND	0.097		mg/Kg	1	1/16/2017 2:33:14 AM	29679
Surr: 4-Bromofluorobenzene	86.9	80-120		%Rec	1	1/16/2017 2:33:14 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701532**

Date Reported: **1/23/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9 (33 1/2-38 1/2)

**Project:** Florance GC J 16A

**Collection Date:** 1/11/2017 9:45:00 AM

**Lab ID:** 1701532-007

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/18/2017 4:41:00 PM	29774
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2017 8:07:06 PM	29681
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/16/2017 8:07:06 PM	29681
Surr: DNOP	119	70-130		%Rec	1	1/16/2017 8:07:06 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/16/2017 2:56:22 AM	29679
Surr: BFB	83.2	68.3-144		%Rec	1	1/16/2017 2:56:22 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/16/2017 2:56:22 AM	29679
Toluene	ND	0.050		mg/Kg	1	1/16/2017 2:56:22 AM	29679
Ethylbenzene	ND	0.050		mg/Kg	1	1/16/2017 2:56:22 AM	29679
Xylenes, Total	ND	0.099		mg/Kg	1	1/16/2017 2:56:22 AM	29679
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	1/16/2017 2:56:22 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701532

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Project:** Florance GC J 16A

**Lab ID:** 1701532-008

**Client Sample ID:** MW-9 (38 1/2-43)

**Collection Date:** 1/11/2017 10:07:00 AM

**Received Date:** 1/13/2017 7:20:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/19/2017 12:04:39 PM	29791
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/16/2017 8:34:30 PM	29681
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 8:34:30 PM	29681
Surr: DNOP	109	70-130		%Rec	1	1/16/2017 8:34:30 PM	29681
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/16/2017 3:19:31 AM	29679
Surr: BFB	82.5	68.3-144		%Rec	1	1/16/2017 3:19:31 AM	29679
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	1/16/2017 3:19:31 AM	29679
Toluene	ND	0.046		mg/Kg	1	1/16/2017 3:19:31 AM	29679
Ethylbenzene	ND	0.046		mg/Kg	1	1/16/2017 3:19:31 AM	29679
Xylenes, Total	ND	0.093		mg/Kg	1	1/16/2017 3:19:31 AM	29679
Surr: 4-Bromofluorobenzene	85.9	80-120		%Rec	1	1/16/2017 3:19:31 AM	29679

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701532

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29774		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29774		RunNo:	40130				
Prep Date:	1/18/2017		Analysis Date:	1/18/2017		SeqNo:	1257870		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29774		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29774		RunNo: 40130					
Prep Date:	1/18/2017		Analysis Date: 1/18/2017		SeqNo: 1257871		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Sample ID	MB-29791		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29791		RunNo:	40154				
Prep Date:	1/19/2017		Analysis Date:	1/19/2017		SeqNo:	1258757		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29791		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29791		RunNo: 40154					
Prep Date:	1/19/2017		Analysis Date: 1/19/2017		SeqNo: 1258758		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701532

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	LCS-29680		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254791		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	90.6	63.8	116			
Surr: DNOP	4.8		5.000		95.1	70	130			

Sample ID	MB-29680		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254792		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.9	70	130			

Sample ID	1701532-003AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	MW-9 (13 1/2-18 1/2)		Batch ID: 29681		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1255437		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.6	47.94	2.137	100	51.6	130			
Surr: DNOP	6.0		4.794		124	70	130			

Sample ID	1701532-003AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	MW-9 (13 1/2-18 1/2)		Batch ID:	29681		RunNo:	40030				
Prep Date:	1/13/2017		Analysis Date:	1/16/2017		SeqNo:	1255438		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	9.3	46.38	2.137	95.8	51.6	130	7.72	20		
Surr: DNOP	5.7		4.638		122	70	130	0	0		

Sample ID	LCS-29681		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29681		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1255449		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	94.3	63.8	116			
Surr: DNOP	5.9		5.000		117	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701532

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29681		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	PBS		Batch ID:	29681		RunNo:	40030			
Prep Date:	1/13/2017		Analysis Date:	1/16/2017		SeqNo:	1255450		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701532

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29679		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253875		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		85.0	68.3	144			

Sample ID	LCS-29679		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253876		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	105	74.6	123			
Surr: BFB	940		1000		94.4	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701532

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29679		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253918		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	LCS-29679		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29679		RunNo: 40013					
Prep Date:	1/13/2017		Analysis Date: 1/15/2017		SeqNo: 1253919		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	75.2	115			
Toluene	0.93	0.050	1.000	0	93.1	80.7	112			
Ethylbenzene	0.91	0.050	1.000	0	90.9	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	90.0	79.2	115			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1701532

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/13/2017 7:20:00 AM

Completed By: Lindsay Mangin

1/13/2017 8:56:48 AM

Reviewed By:

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	2.1	Good	Yes			





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

January 18, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Florance GC J 16A

OrderNo.: 1701526

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/13/2017 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](http://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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701526**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (4'-9')

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 12:30:00 PM

**Lab ID:** 1701526-001

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 3:20:52 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	810	9.1		mg/Kg	1	1/16/2017 2:25:07 PM	29680
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/16/2017 2:25:07 PM	29680
Surr: DNOP	104	70-130		%Rec	1	1/16/2017 2:25:07 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	530	24		mg/Kg	5	1/14/2017 2:59:36 PM	29678
Surr: BFB	643	68.3-144	S	%Rec	5	1/14/2017 2:59:36 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	1/14/2017 2:59:36 PM	29678
Toluene	ND	0.24		mg/Kg	5	1/14/2017 2:59:36 PM	29678
Ethylbenzene	1.1	0.24		mg/Kg	5	1/14/2017 2:59:36 PM	29678
Xylenes, Total	3.3	0.48		mg/Kg	5	1/14/2017 2:59:36 PM	29678
Surr: 4-Bromofluorobenzene	130	80-120	S	%Rec	5	1/14/2017 2:59:36 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701526

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (9-'14)

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 12:36:00 PM

**Lab ID:** 1701526-002

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 3:58:05 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	640	9.6		mg/Kg	1	1/16/2017 2:48:28 PM	29680
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/16/2017 2:48:28 PM	29680
Surr: DNOP	99.3	70-130		%Rec	1	1/16/2017 2:48:28 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	560	23		mg/Kg	5	1/14/2017 3:23:06 PM	29678
Surr: BFB	602	68.3-144	S	%Rec	5	1/14/2017 3:23:06 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	1/14/2017 3:23:06 PM	29678
Toluene	ND	0.23		mg/Kg	5	1/14/2017 3:23:06 PM	29678
Ethylbenzene	ND	0.23		mg/Kg	5	1/14/2017 3:23:06 PM	29678
Xylenes, Total	7.9	0.47		mg/Kg	5	1/14/2017 3:23:06 PM	29678
Surr: 4-Bromofluorobenzene	136	80-120	S	%Rec	5	1/14/2017 3:23:06 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701526**

Date Reported: **1/18/2017**

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (14'-19')

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 12:44:00 PM

**Lab ID:** 1701526-003

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 1:16:00 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	240	9.5		mg/Kg	1	1/16/2017 3:11:53 PM	29680
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 3:11:53 PM	29680
Surr: DNOP	100	70-130		%Rec	1	1/16/2017 3:11:53 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	9.2		mg/Kg	2	1/15/2017 1:22:10 PM	29678
Surr: BFB	386	68.3-144	S	%Rec	2	1/15/2017 1:22:10 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	2	1/15/2017 1:22:10 PM	29678
Toluene	ND	0.092		mg/Kg	2	1/15/2017 1:22:10 PM	29678
Ethylbenzene	0.27	0.092		mg/Kg	2	1/15/2017 1:22:10 PM	29678
Xylenes, Total	1.6	0.18		mg/Kg	2	1/15/2017 1:22:10 PM	29678
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	2	1/15/2017 1:22:10 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701526

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (19'-24')

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 12:52:00 PM

**Lab ID:** 1701526-004

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 1:28:00 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	12	9.2		mg/Kg	1	1/16/2017 3:35:11 PM	29680
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/16/2017 3:35:11 PM	29680
Surr: DNOP	101	70-130		%Rec	1	1/16/2017 3:35:11 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/15/2017 1:45:28 PM	29678
Surr: BFB	98.5	68.3-144		%Rec	1	1/15/2017 1:45:28 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 1:45:28 PM	29678
Toluene	ND	0.050		mg/Kg	1	1/15/2017 1:45:28 PM	29678
Ethylbenzene	ND	0.050		mg/Kg	1	1/15/2017 1:45:28 PM	29678
Xylenes, Total	ND	0.10		mg/Kg	1	1/15/2017 1:45:28 PM	29678
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	1/15/2017 1:45:28 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701526

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (27')

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 1:00:00 PM

**Lab ID:** 1701526-005

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 1:41:00 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/16/2017 4:22:01 PM	29680
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/16/2017 4:22:01 PM	29680
Surr: DNOP	106	70-130		%Rec	1	1/16/2017 4:22:01 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/14/2017 8:27:54 PM	29678
Surr: BFB	88.0	68.3-144		%Rec	1	1/14/2017 8:27:54 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/14/2017 8:27:54 PM	29678
Toluene	ND	0.049		mg/Kg	1	1/14/2017 8:27:54 PM	29678
Ethylbenzene	ND	0.049		mg/Kg	1	1/14/2017 8:27:54 PM	29678
Xylenes, Total	ND	0.097		mg/Kg	1	1/14/2017 8:27:54 PM	29678
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	1/14/2017 8:27:54 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701526

Date Reported: 1/18/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10 (29'-31')

**Project:** Florance GC J 16A

**Collection Date:** 1/12/2017 1:11:00 PM

**Lab ID:** 1701526-006

**Matrix:** SOIL

**Received Date:** 1/13/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/17/2017 1:53:00 PM	29727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	42	9.5		mg/Kg	1	1/16/2017 4:45:33 PM	29680
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/16/2017 4:45:33 PM	29680
Surr: DNOP	103	70-130		%Rec	1	1/16/2017 4:45:33 PM	29680
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	20	4.7		mg/Kg	1	1/15/2017 2:08:47 PM	29678
Surr: BFB	160	68.3-144	S	%Rec	1	1/15/2017 2:08:47 PM	29678
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	1/15/2017 2:08:47 PM	29678
Toluene	ND	0.047		mg/Kg	1	1/15/2017 2:08:47 PM	29678
Ethylbenzene	ND	0.047		mg/Kg	1	1/15/2017 2:08:47 PM	29678
Xylenes, Total	0.20	0.095		mg/Kg	1	1/15/2017 2:08:47 PM	29678
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	1/15/2017 2:08:47 PM	29678

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701526

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29704		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29704		RunNo:	40057				
Prep Date:	1/16/2017		Analysis Date:	1/16/2017		SeqNo:	1255351		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29704		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29704		RunNo: 40057					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1255352		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

Sample ID	MB-29727		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29727		RunNo:	40074				
Prep Date:	1/16/2017		Analysis Date:	1/17/2017		SeqNo:	1256647		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29727		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29727		RunNo: 40074					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1256648		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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701526

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29674		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254788		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29680		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254791		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	90.6	63.8	116			
Surr: DNOP	4.8		5.000		95.1	70	130			

Sample ID	MB-29680		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29680		RunNo: 40029					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254792		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.9	70	130			

Sample ID	LCS-29674		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254824		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	70	130			

### Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701526

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29678		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29678		RunNo: 40009					
Prep Date:	1/13/2017		Analysis Date: 1/14/2017		SeqNo: 1253705		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	860		1000		86.2	68.3	144			

Sample ID	LCS-29678		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29678		RunNo: 40009					
Prep Date:	1/13/2017		Analysis Date: 1/14/2017		SeqNo: 1253706		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	74.6	123			
Surr: BFB	950		1000		95.3	68.3	144			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701526

18-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29678		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 29678		RunNo: 40009					
Prep Date:	1/13/2017		Analysis Date: 1/14/2017		SeqNo: 1253745		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	LCS-29678		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29678		RunNo: 40009					
Prep Date:	1/13/2017		Analysis Date: 1/14/2017		SeqNo: 1253746		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	75.2	115			
Toluene	0.97	0.050	1.000	0	96.8	80.7	112			
Ethylbenzene	0.92	0.050	1.000	0	92.3	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	92.6	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701526**

RcptNo: 1

Received by/date:

Logged By: **Lindsay Mangin**

1/13/2017 7:20:00 AM

Completed By: **Lindsay Mangin**

1/13/2017 8:32:58 AM

Reviewed By:

**RA 01/13/17**

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	2.1	Good	Yes			

# Chain-of-Custody Record

Client: BP America By W. J. W. 1/17/2017

Project Name: Flare GC J 16A

Project #: \_\_\_\_\_

Phone #: 505-320-1183

Mail or Fax#: \_\_\_\_\_

VQC Package: ☐ Level 4 (Full Validation)

Standard ☐ Other ☐ NELAP ☐ Other ☐ EDD (Type) \_\_\_\_\_

Project Manager: J. Bueh

Sampler: J. Bueh

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

Container Type and # 403 x 1

Preservative Type cool

HEAL No. 1701526

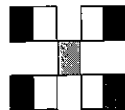
Date	Time	Matrix	Sample Request ID
1/17/2017	1230	Soil	MW-10(4'-9')
"	1236	"	MW-10(9'-14')
"	1244	"	MW-10(14'-19')
"	1252	"	MW-10(19'-24')
"	1300	"	MW-10(27')
"	1311	"	MW-10(29'-31')

Relinquished by: John Bueh Date: 1/17/2017 Time: 1635

Received by: Chris Wicks Date: 1/17/2017 Time: 1635

Relinquished by: Chris Wicks Date: 01/13/17 Time: 0700

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

### Analysis Request

BTEX + MTBE + TPAH (Gas only)	BTEX + MTBE + TPAH (8021)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X

Remarks: Bill BP  
contact: Steve Masted  
VID: VHXNDUEM



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

January 23, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1701717

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/18/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:55:00 AM

**Lab ID:** 1701717-001

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>SM2340B: HARDNESS</b>							Analyst: <b>pmf</b>
Hardness (As CaCO3)	230	6.6		mg/L	1	1/19/2017	R40136
<b>SPECIFIC GRAVITY</b>							Analyst: <b>LGT</b>
Specific Gravity	0.9963	0			1	1/23/2017 11:42:00 AM	R40203
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	30	10		mg/L	20	1/19/2017 8:33:24 PM	R40154
Sulfate	20	0.50		mg/L	1	1/19/2017 8:21:00 PM	R40154
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	620	1.0		µmhos/cm	1	1/19/2017 1:39:28 PM	R40164
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	255.0	20.00		mg/L CaCO3	1	1/19/2017 1:39:28 PM	R40164
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	1/19/2017 1:39:28 PM	R40164
Total Alkalinity (as CaCO3)	255.0	20.00		mg/L CaCO3	1	1/19/2017 1:39:28 PM	R40164
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	370	100	D	mg/L	1	1/19/2017 6:33:00 PM	29768
<b>SM4500-H+B: PH</b>							Analyst: <b>JRR</b>
pH	7.67	1.68	H	pH units	1	1/19/2017 1:39:28 PM	R40164
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							Analyst: <b>pmf</b>
Calcium	75	1.0		mg/L	1	1/19/2017 11:56:29 AM	B40136
Iron	ND	0.020		mg/L	1	1/19/2017 11:56:29 AM	B40136
Magnesium	10	1.0		mg/L	1	1/19/2017 11:56:29 AM	B40136
Potassium	4.4	1.0		mg/L	1	1/19/2017 11:56:29 AM	B40136
Sodium	28	1.0		mg/L	1	1/19/2017 11:56:29 AM	B40136
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Benzene	8.4	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Toluene	1.6	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Ethylbenzene	23	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2,4-Trimethylbenzene	16	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,3,5-Trimethylbenzene	83	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Naphthalene	13	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1-Methylnaphthalene	19	4.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
2-Methylnaphthalene	20	4.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Acetone	15	10		µg/L	1	1/18/2017 5:26:21 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:55:00 AM

**Lab ID:** 1701717-001

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Bromobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Bromoform	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Bromomethane	ND	3.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
2-Butanone	ND	10		µg/L	1	1/18/2017 5:26:21 PM	B40108
Carbon disulfide	ND	10		µg/L	1	1/18/2017 5:26:21 PM	B40108
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Chlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Chloroethane	ND	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Chloroform	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Chloromethane	ND	3.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Dibromomethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
2-Hexanone	ND	10		µg/L	1	1/18/2017 5:26:21 PM	B40108
Isopropylbenzene	9.6	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
4-Isopropyltoluene	5.0	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2017 5:26:21 PM	B40108
Methylene Chloride	ND	3.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
n-Butylbenzene	ND	3.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
n-Propylbenzene	5.6	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
sec-Butylbenzene	2.6	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Styrene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-6

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:55:00 AM

**Lab ID:** 1701717-001

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Vinyl chloride	ND	1.0		µg/L	1	1/18/2017 5:26:21 PM	B40108
Xylenes, Total	260	15		µg/L	10	1/20/2017 12:06:20 AM	D40131
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%Rec	1	1/18/2017 5:26:21 PM	B40108
Surr: 4-Bromofluorobenzene	94.1	70-130		%Rec	1	1/18/2017 5:26:21 PM	B40108
Surr: Dibromofluoromethane	95.2	70-130		%Rec	1	1/18/2017 5:26:21 PM	B40108
Surr: Toluene-d8	101	70-130		%Rec	1	1/18/2017 5:26:21 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:10:00 AM

**Lab ID:** 1701717-002

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>SM2340B: HARDNESS</b>							Analyst: <b>pmf</b>
Hardness (As CaCO3)	160	6.6		mg/L	1	1/19/2017	R40136
<b>SPECIFIC GRAVITY</b>							Analyst: <b>LGT</b>
Specific Gravity	0.9979	0			1	1/23/2017 11:42:00 AM	R40203
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	13	2.5		mg/L	5	1/19/2017 8:45:48 PM	R40154
Sulfate	56	2.5		mg/L	5	1/19/2017 8:45:48 PM	R40154
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	420	1.0		µmhos/cm	1	1/19/2017 1:52:44 PM	R40164
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	131.2	20.00		mg/L CaCO3	1	1/19/2017 1:52:44 PM	R40164
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	1/19/2017 1:52:44 PM	R40164
Total Alkalinity (as CaCO3)	131.2	20.00		mg/L CaCO3	1	1/19/2017 1:52:44 PM	R40164
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	300	200	D	mg/L	1	1/19/2017 6:33:00 PM	29768
<b>SM4500-H+B: PH</b>							Analyst: <b>JRR</b>
pH	8.06	1.68	H	pH units	1	1/19/2017 1:52:44 PM	R40164
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							Analyst: <b>pmf</b>
Calcium	54	1.0		mg/L	1	1/19/2017 12:02:11 PM	B40136
Iron	ND	0.020		mg/L	1	1/19/2017 12:02:11 PM	B40136
Magnesium	7.1	1.0		mg/L	1	1/19/2017 12:02:11 PM	B40136
Potassium	2.9	1.0		mg/L	1	1/19/2017 12:02:11 PM	B40136
Sodium	19	1.0		mg/L	1	1/19/2017 12:02:11 PM	B40136
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Benzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Toluene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Ethylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,3,5-Trimethylbenzene	1.1	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Naphthalene	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Acetone	ND	10		µg/L	1	1/18/2017 6:52:32 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:10:00 AM

**Lab ID:** 1701717-002

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Bromobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Bromoform	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Bromomethane	ND	3.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
2-Butanone	ND	10		µg/L	1	1/18/2017 6:52:32 PM	B40108
Carbon disulfide	ND	10		µg/L	1	1/18/2017 6:52:32 PM	B40108
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Chlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Chloroethane	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Chloroform	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Chloromethane	ND	3.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Dibromomethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
2-Hexanone	ND	10		µg/L	1	1/18/2017 6:52:32 PM	B40108
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2017 6:52:32 PM	B40108
Methylene Chloride	ND	3.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
n-Butylbenzene	ND	3.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Styrene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-7

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 10:10:00 AM

**Lab ID:** 1701717-002

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Vinyl chloride	ND	1.0		µg/L	1	1/18/2017 6:52:32 PM	B40108
Xylenes, Total	2.2	1.5		µg/L	1	1/18/2017 6:52:32 PM	B40108
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%Rec	1	1/18/2017 6:52:32 PM	B40108
Surr: 4-Bromofluorobenzene	94.5	70-130		%Rec	1	1/18/2017 6:52:32 PM	B40108
Surr: Dibromofluoromethane	101	70-130		%Rec	1	1/18/2017 6:52:32 PM	B40108
Surr: Toluene-d8	96.9	70-130		%Rec	1	1/18/2017 6:52:32 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 12:30:00 PM

**Lab ID:** 1701717-003

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>SM2340B: HARDNESS</b>							Analyst: <b>pmf</b>
Hardness (As CaCO3)	280	6.6		mg/L	1	1/19/2017	R40136
<b>SPECIFIC GRAVITY</b>							Analyst: <b>LGT</b>
Specific Gravity	0.9982	0			1	1/23/2017 11:42:00 AM	R40203
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	22	10		mg/L	20	1/19/2017 9:23:01 PM	R40154
Sulfate	24	0.50		mg/L	1	1/19/2017 9:10:36 PM	R40154
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	710	1.0		µmhos/cm	1	1/19/2017 2:28:38 PM	R40164
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	332.7	20.00		mg/L CaCO3	1	1/19/2017 2:28:38 PM	R40164
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	1/19/2017 2:28:38 PM	R40164
Total Alkalinity (as CaCO3)	332.7	20.00		mg/L CaCO3	1	1/19/2017 2:28:38 PM	R40164
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	465	100	D	mg/L	1	1/19/2017 6:33:00 PM	29768
<b>SM4500-H+B: PH</b>							Analyst: <b>JRR</b>
pH	7.54	1.68	H	pH units	1	1/19/2017 2:28:38 PM	R40164
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							Analyst: <b>pmf</b>
Calcium	86	1.0		mg/L	1	1/19/2017 12:04:00 PM	B40136
Iron	ND	0.020		mg/L	1	1/19/2017 12:04:00 PM	B40136
Magnesium	15	1.0		mg/L	1	1/19/2017 12:04:00 PM	B40136
Potassium	4.1	1.0		mg/L	1	1/19/2017 12:04:00 PM	B40136
Sodium	35	1.0		mg/L	1	1/19/2017 12:04:00 PM	B40136
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Benzene	12	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Toluene	26	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Ethylbenzene	10	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2,4-Trimethylbenzene	2.1	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,3,5-Trimethylbenzene	7.5	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Naphthalene	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Acetone	ND	10		µg/L	1	1/18/2017 7:21:15 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-8

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 12:30:00 PM

**Lab ID:** 1701717-003

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Bromobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Bromoform	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Bromomethane	ND	3.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
2-Butanone	ND	10		µg/L	1	1/18/2017 7:21:15 PM	B40108
Carbon disulfide	ND	10		µg/L	1	1/18/2017 7:21:15 PM	B40108
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Chlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Chloroethane	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Chloroform	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Chloromethane	ND	3.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Dibromomethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
2-Hexanone	ND	10		µg/L	1	1/18/2017 7:21:15 PM	B40108
Isopropylbenzene	2.6	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2017 7:21:15 PM	B40108
Methylene Chloride	ND	3.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
n-Butylbenzene	ND	3.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
n-Propylbenzene	2.2	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Styrene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

CLIENT: Blagg Engineering

Client Sample ID: MW-8

Project: Florance GC J 16A

Collection Date: 1/17/2017 12:30:00 PM

Lab ID: 1701717-003

Matrix: AQUEOUS

Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Vinyl chloride	ND	1.0		µg/L	1	1/18/2017 7:21:15 PM	B40108
Xylenes, Total	43	1.5		µg/L	1	1/18/2017 7:21:15 PM	B40108
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%Rec	1	1/18/2017 7:21:15 PM	B40108
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	1/18/2017 7:21:15 PM	B40108
Surr: Dibromofluoromethane	95.0	70-130		%Rec	1	1/18/2017 7:21:15 PM	B40108
Surr: Toluene-d8	103	70-130		%Rec	1	1/18/2017 7:21:15 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 11:43:00 AM

**Lab ID:** 1701717-004

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>SM2340B: HARDNESS</b>							Analyst: <b>pmf</b>
Hardness (As CaCO3)	550	6.6		mg/L	1	1/19/2017	R40136
<b>SPECIFIC GRAVITY</b>							Analyst: <b>LGT</b>
Specific Gravity	0.9992	0			1	1/23/2017 11:42:00 AM	R40203
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	5.0	2.5		mg/L	5	1/19/2017 9:35:26 PM	R40154
Sulfate	ND	2.5		mg/L	5	1/19/2017 9:35:26 PM	R40154
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	950	1.0		µmhos/cm	1	1/19/2017 2:43:43 PM	R40164
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	531.5	20.00		mg/L CaCO3	1	1/19/2017 2:43:43 PM	R40164
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	1/19/2017 2:43:43 PM	R40164
Total Alkalinity (as CaCO3)	531.5	20.00		mg/L CaCO3	1	1/19/2017 2:43:43 PM	R40164
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	725	100	*D	mg/L	1	1/19/2017 6:33:00 PM	29768
<b>SM4500-H+B: PH</b>							Analyst: <b>JRR</b>
pH	7.03	1.68	H	pH units	1	1/19/2017 2:43:43 PM	R40164
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							Analyst: <b>pmf</b>
Calcium	190	5.0		mg/L	5	1/19/2017 12:19:40 PM	B40136
Iron	3.9	0.10		mg/L	5	1/19/2017 12:19:40 PM	B40136
Magnesium	19	1.0		mg/L	1	1/19/2017 12:05:51 PM	B40136
Potassium	1.2	1.0		mg/L	1	1/19/2017 12:05:51 PM	B40136
Sodium	10	1.0		mg/L	1	1/19/2017 12:05:51 PM	B40136
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Benzene	10000	1000		µg/L	1E	1/20/2017 12:34:51 AM	D40131
Toluene	12000	1000		µg/L	1E	1/20/2017 12:34:51 AM	D40131
Ethylbenzene	550	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2,4-Trimethylbenzene	250	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,3,5-Trimethylbenzene	110	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Naphthalene	44	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
1-Methylnaphthalene	ND	40		µg/L	10	1/18/2017 7:49:58 PM	B40108
2-Methylnaphthalene	ND	40		µg/L	10	1/18/2017 7:49:58 PM	B40108
Acetone	120	100		µg/L	10	1/18/2017 7:49:58 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 11:43:00 AM

**Lab ID:** 1701717-004

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>AG</b>
Bromobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Bromodichloromethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Bromoform	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Bromomethane	ND	30		µg/L	10	1/18/2017 7:49:58 PM	B40108
2-Butanone	ND	100		µg/L	10	1/18/2017 7:49:58 PM	B40108
Carbon disulfide	ND	100		µg/L	10	1/18/2017 7:49:58 PM	B40108
Carbon Tetrachloride	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Chlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Chloroethane	ND	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
Chloroform	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Chloromethane	ND	30		µg/L	10	1/18/2017 7:49:58 PM	B40108
2-Chlorotoluene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
4-Chlorotoluene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
cis-1,2-DCE	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
cis-1,3-Dichloropropene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
Dibromochloromethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Dibromomethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2-Dichlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,3-Dichlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,4-Dichlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Dichlorodifluoromethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1-Dichloroethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1-Dichloroethene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2-Dichloropropane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,3-Dichloropropane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
2,2-Dichloropropane	ND	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1-Dichloropropene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Hexachlorobutadiene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
2-Hexanone	ND	100		µg/L	10	1/18/2017 7:49:58 PM	B40108
Isopropylbenzene	37	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
4-Isopropyltoluene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
4-Methyl-2-pentanone	ND	100		µg/L	10	1/18/2017 7:49:58 PM	B40108
Methylene Chloride	ND	30		µg/L	10	1/18/2017 7:49:58 PM	B40108
n-Butylbenzene	ND	30		µg/L	10	1/18/2017 7:49:58 PM	B40108
n-Propylbenzene	34	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
sec-Butylbenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Styrene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
tert-Butylbenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701717

Date Reported: 1/23/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-10

**Project:** Florance GC J 16A

**Collection Date:** 1/17/2017 11:43:00 AM

**Lab ID:** 1701717-004

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>				Analyst: <b>AG</b>			
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
Tetrachloroethene (PCE)	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
trans-1,2-DCE	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
trans-1,3-Dichloropropene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2,3-Trichlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2,4-Trichlorobenzene	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1,1-Trichloroethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,1,2-Trichloroethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Trichloroethene (TCE)	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Trichlorofluoromethane	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
1,2,3-Trichloropropane	ND	20		µg/L	10	1/18/2017 7:49:58 PM	B40108
Vinyl chloride	ND	10		µg/L	10	1/18/2017 7:49:58 PM	B40108
Xylenes, Total	5500	1500		µg/L	1E	1/20/2017 12:34:51 AM	D40131
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	10	1/18/2017 7:49:58 PM	B40108
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	10	1/18/2017 7:49:58 PM	B40108
Surr: Dibromofluoromethane	96.9	70-130		%Rec	10	1/18/2017 7:49:58 PM	B40108
Surr: Toluene-d8	97.4	70-130		%Rec	10	1/18/2017 7:49:58 PM	B40108

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R40154</b>		RunNo: <b>40154</b>							
Prep Date:	Analysis Date: <b>1/19/2017</b>		SeqNo: <b>1258782</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R40154</b>		RunNo: <b>40154</b>							
Prep Date:	Analysis Date: <b>1/19/2017</b>		SeqNo: <b>1258783</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.2	90	110			
Sulfate	9.9	0.50	10.00	0	99.2	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: B40108			RunNo: 40108					
Prep Date:		Analysis Date: 1/18/2017			SeqNo: 1257616		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	98.5	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	111	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: B40108			RunNo: 40108					
Prep Date:		Analysis Date: 1/18/2017			SeqNo: 1257617		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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	B40108	RunNo:	40108					
Prep Date:		Analysis Date:	1/18/2017	SeqNo:	1257617	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	B40108	RunNo:	40108					
Prep Date:		Analysis Date:	1/18/2017	SeqNo:	1257617	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.0	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	D40131	RunNo:	40131					
Prep Date:		Analysis Date:	1/19/2017	SeqNo:	1258823	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.4	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		89.1	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	D40131	RunNo:	40131					
Prep Date:		Analysis Date:	1/19/2017	SeqNo:	1258838	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								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.4	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-B	SampType: MBLK			TestCode: EPA Method 6010B: Dissolved Metals					
Client ID:	PBW	Batch ID: B40136			RunNo: 40136					
Prep Date:		Analysis Date: 1/19/2017			SeqNo: 1258399		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS-B		SampType: LCS		TestCode: EPA Method 6010B: Dissolved Metals					
Client ID:	LCSW		Batch ID: B40136		RunNo: 40136					
Prep Date:			Analysis Date: 1/19/2017		SeqNo: 1258403		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	54	1.0	50.00	0	109	80	120			
Iron	0.54	0.020	0.5000	0	107	80	120			
Magnesium	52	1.0	50.00	0	105	80	120			
Potassium	50	1.0	50.00	0	100	80	120			
Sodium	50	1.0	50.00	0	100	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	<b>mb-1</b>	SampType:	<b>mbk</b>	TestCode:	<b>SM2320B: Alkalinity</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R40164</b>	RunNo:	<b>40164</b>					
Prep Date:		Analysis Date:	<b>1/19/2017</b>	SeqNo:	<b>1259028</b>	Units:	<b>mg/L CaCO3</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	<b>lcs-1</b>	SampType:	<b>lcs</b>	TestCode:	<b>SM2320B: Alkalinity</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40164</b>	RunNo:	<b>40164</b>					
Prep Date:		Analysis Date:	<b>1/19/2017</b>	SeqNo:	<b>1259029</b>	Units:	<b>mg/L CaCO3</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.68	20.00	80.00	0	97.1	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701717

23-Jan-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-29768		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 29768		RunNo: 40145					
Prep Date:	1/18/2017		Analysis Date: 1/19/2017		SeqNo: 1258508		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-29768		SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW		Batch ID:	29768		RunNo:	40145				
Prep Date:	1/18/2017		Analysis Date:	1/19/2017		SeqNo:	1258509		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	1010	20.0	1000	0	101	80	120				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1701717**

ReptNo: **1**

Received by/date:

Logged By: **Ashley Gallegos**

1/18/2017 7:25:00 AM

Completed By: **Ashley Gallegos**

1/18/2017 8:36:33 AM

Reviewed By:

## 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ?

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:

4

( $<2$  or  $>12$  unless noted)

Adjusted?

YES

Checked by:

Re

## 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			







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

February 28, 2017

Jeff Blagg  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: Florance GC J 16A

OrderNo.: 1702784

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/17/2017 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](http://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 qualifiers 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1702784

Date Reported: 2/28/2017

CLIENT: Blagg Engineering

Client Sample ID: MW-9

Project: Florance GC J 16A

Collection Date: 2/16/2017 2:30:00 PM

Lab ID: 1702784-001

Matrix: AQUEOUS

Received Date: 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>SM2340B: HARDNESS</b>							Analyst: <b>pmf</b>
Hardness (As CaCO3)	450	6.6		mg/L	1	2/22/2017	R40933
<b>SPECIFIC GRAVITY</b>							Analyst: <b>LGT</b>
Specific Gravity	0.9964	0			1	2/22/2017 1:06:00 PM	R40903
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	49	10		mg/L	20	2/18/2017 1:24:47 AM	A40846
Sulfate	230	10		mg/L	20	2/18/2017 1:24:47 AM	A40846
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	950	1.0		µmhos/cm	1	2/20/2017 4:33:53 PM	R40869
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	208.4	20.00		mg/L CaCO3	1	2/20/2017 4:33:53 PM	R40869
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	2/20/2017 4:33:53 PM	R40869
Total Alkalinity (as CaCO3)	208.4	20.00		mg/L CaCO3	1	2/20/2017 4:33:53 PM	R40869
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	670	20.0	*	mg/L	1	2/21/2017 7:32:00 PM	30293
<b>SM4500-H+B: PH</b>							Analyst: <b>JRR</b>
pH	7.62	1.68	H	pH units	1	2/20/2017 4:33:53 PM	R40869
<b>EPA METHOD 6010B: DISSOLVED METALS</b>							Analyst: <b>pmf</b>
Calcium	140	5.0		mg/L	5	2/22/2017 4:18:00 PM	A40933
Iron	0.34	0.020		mg/L	1	2/22/2017 3:14:38 PM	A40933
Magnesium	25	1.0		mg/L	1	2/22/2017 3:14:38 PM	A40933
Potassium	6.7	1.0		mg/L	1	2/22/2017 3:14:38 PM	A40933
Sodium	45	1.0		mg/L	1	2/22/2017 3:14:38 PM	A40933
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Toluene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Ethylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Naphthalene	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1-Methylnaphthalene	ND	4.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
2-Methylnaphthalene	ND	4.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Acetone	ND	10		µg/L	1	2/17/2017 9:10:00 PM	R40819

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702784

Date Reported: 2/28/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 2:30:00 PM

**Lab ID:** 1702784-001

**Matrix:** AQUEOUS

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: RAA
Bromobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Bromodichloromethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Bromoform	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Bromomethane	ND	3.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
2-Butanone	ND	10		µg/L	1	2/17/2017 9:10:00 PM	R40819
Carbon disulfide	ND	10		µg/L	1	2/17/2017 9:10:00 PM	R40819
Carbon Tetrachloride	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Chlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Chloroethane	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Chloroform	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Chloromethane	ND	3.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
2-Chlorotoluene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
4-Chlorotoluene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
cis-1,2-DCE	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Dibromochloromethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Dibromomethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1-Dichloroethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1-Dichloroethene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2-Dichloropropane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,3-Dichloropropane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
2,2-Dichloropropane	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1-Dichloropropene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Hexachlorobutadiene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
2-Hexanone	ND	10		µg/L	1	2/17/2017 9:10:00 PM	R40819
Isopropylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
4-Isopropyltoluene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
4-Methyl-2-pentanone	ND	10		µg/L	1	2/17/2017 9:10:00 PM	R40819
Methylene Chloride	ND	3.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
n-Butylbenzene	ND	3.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
n-Propylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
sec-Butylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Styrene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
tert-Butylbenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1702784

Date Reported: 2/28/2017

**CLIENT:** Blagg Engineering

**Client Sample ID:** MW-9

**Project:** Florance GC J 16A

**Collection Date:** 2/16/2017 2:30:00 PM

**Lab ID:** 1702784-001

**Matrix:** AQUEOUS

**Received Date:** 2/17/2017 6:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
trans-1,2-DCE	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Trichlorofluoromethane	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Vinyl chloride	ND	1.0		µg/L	1	2/17/2017 9:10:00 PM	R40819
Xylenes, Total	ND	1.5		µg/L	1	2/17/2017 9:10:00 PM	R40819
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%Rec	1	2/17/2017 9:10:00 PM	R40819
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	2/17/2017 9:10:00 PM	R40819
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	2/17/2017 9:10:00 PM	R40819
Surr: Toluene-d8	100	70-130		%Rec	1	2/17/2017 9:10:00 PM	R40819

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID <b>MB</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A40846</b>		RunNo: <b>40846</b>							
Prep Date:	Analysis Date: <b>2/17/2017</b>		SeqNo: <b>1279397</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A40846</b>		RunNo: <b>40846</b>							
Prep Date:	Analysis Date: <b>2/17/2017</b>		SeqNo: <b>1279398</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.0	90	110			
Sulfate	9.9	0.50	10.00	0	99.5	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	100ng lcs	SampType: LCS4			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID: R40819			RunNo: 40819					
Prep Date:	Analysis Date: 2/17/2017			SeqNo: 1278766		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	23	1.0	20.00	0	115	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	114	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.6	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.5	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R40819			RunNo: 40819					
Prep Date:		Analysis Date: 2/17/2017			SeqNo: 1278805		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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R40819	RunNo:	40819					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1278805	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R40819	RunNo:	40819					
Prep Date:		Analysis Date:	2/17/2017	SeqNo:	1278805	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.0	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	<b>MB-A</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 6010B: Dissolved Metals</b>			
Client ID:	<b>PBW</b>		Batch ID:	<b>A40933</b>		RunNo:	<b>40933</b>			
Prep Date:			Analysis Date:	<b>2/22/2017</b>		SeqNo:	<b>1282207</b>	Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	<b>LCS-A</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 6010B: Dissolved Metals</b>			
Client ID:	<b>LCSW</b>		Batch ID:	<b>A40933</b>		RunNo:	<b>40933</b>			
Prep Date:			Analysis Date:	<b>2/22/2017</b>		SeqNo:	<b>1282208</b>	Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	52	1.0	50.00	0	103	80	120			
Iron	0.48	0.020	0.5000	0	96.9	80	120			
Magnesium	52	1.0	50.00	0	105	80	120			
Potassium	51	1.0	50.00	0	103	80	120			
Sodium	52	1.0	50.00	0	104	80	120			

Sample ID	<b>1702784-001CMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 6010B: Dissolved Metals</b>			
Client ID:	<b>MW-9</b>		Batch ID:	<b>A40933</b>		RunNo:	<b>40933</b>			
Prep Date:			Analysis Date:	<b>2/22/2017</b>		SeqNo:	<b>1282212</b>	Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.87	0.020	0.5000	0.3405	106	75	125			
Magnesium	77	1.0	50.00	24.93	104	75	125			
Potassium	59	1.0	50.00	6.737	104	75	125			
Sodium	96	1.0	50.00	44.63	103	75	125			

Sample ID	<b>1702784-001CMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 6010B: Dissolved Metals</b>			
Client ID:	<b>MW-9</b>		Batch ID:	<b>A40933</b>		RunNo:	<b>40933</b>			
Prep Date:			Analysis Date:	<b>2/22/2017</b>		SeqNo:	<b>1282213</b>	Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.86	0.020	0.5000	0.3405	104	75	125	1.43	20	
Magnesium	76	1.0	50.00	24.93	103	75	125	0.654	20	
Potassium	58	1.0	50.00	6.737	103	75	125	0.733	20	
Sodium	95	1.0	50.00	44.63	101	75	125	0.550	20	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	<b>mb-1</b>	SampType:	<b>mbk</b>	TestCode:	<b>SM2320B: Alkalinity</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R40869</b>	RunNo:	<b>40869</b>					
Prep Date:		Analysis Date:	<b>2/20/2017</b>	SeqNo:	<b>1280279</b>	Units:	<b>mg/L CaCO3</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	<b>lcs-1</b>	SampType:	<b>lcs</b>	TestCode:	<b>SM2320B: Alkalinity</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40869</b>	RunNo:	<b>40869</b>					
Prep Date:		Analysis Date:	<b>2/20/2017</b>	SeqNo:	<b>1280280</b>	Units:	<b>mg/L CaCO3</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.16	20.00	80.00	0	99.0	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	1702784-001BDUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	MW-9	Batch ID:	R40903	RunNo:	40903					
Prep Date:		Analysis Date:	2/22/2017	SeqNo:	1281462	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	0.9967	0						0.0301	20	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1702784

28-Feb-17

Client: Blagg Engineering

Project: Florance GC J 16A

Sample ID	MB-30293		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 30293		RunNo: 40889					
Prep Date:	2/20/2017		Analysis Date: 2/21/2017		SeqNo: 1280722		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-30293		SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW		Batch ID:	30293		RunNo:	40889				
Prep Date:	2/20/2017		Analysis Date:	2/21/2017		SeqNo:	1280723		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	1010	20.0	1000	0	101	80	120				

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1702784

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

2/17/2017 6:00:00 AM

Completed By: Ashley Gallegos

2/17/2017 6:32:20 AM

Reviewed By:

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ?

Yes ✓

No

NA

6. Sample(s) in proper container(s)?

Yes ✓

No

7. Sufficient sample volume for indicated test(s)?

Yes ✓

No

8. Are samples (except VOA and ONG) properly preserved?

Yes ✓

No

9. Was preservative added to bottles?

Yes ✓

No

NA

10. VOA vials have zero headspace?

Yes ✓

No

No VOA Vials

11. Were any sample containers received broken?

Yes

No ✓

# of preserved bottles checked for pH:

1 or >12 unless noted

12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody)

Yes ✓

No

Adjusted?

Yes

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

Checked by:

aj

(If no, notify customer for authorization.)

### 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:

For metals analysis: added 0.5ml HNO<sub>3</sub> to -0016 for acceptable pH. Held 24 hours prior to analysis.

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

2/17 @ 1350  
aj

# Chain-of-Custody Record

Client: BP AMERICA

BLAG ENGINEERING INC.

Mailing Address:

Phone #: (505) 320-1193

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Date Time Matrix Sample Request ID

2/16/2017 1430 Water MW-9

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

FLORANCE GC J 16A

Project #:

Project Manager:

J. Blagg

Sampler: J. Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.8

Container Type and #

3VOA 1 Liter

Preservative Type

HCL Cool

HEAL No.

1702784

-001

Relinquished by:

JH Blagg

Date:

2/16/2017

Received by:

Steve Moskale

Date:

2/16/2017

Time

1705

Date

02/17/17

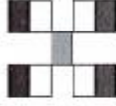
Remarks:

BU BP  
CONTACT: STEVE MOSKAL  
VID: VHXDNUEVRM

WBS ELEMENT:

L1-0016D-E:FLRNC GC J 16A

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**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TMBs (8021)  
BTEX + MTBE + TPH (Gas only)  
TPH 8015B (GRO / DRO / MRO)  
TPH (Method 418.1)  
EDB (Method 504.1)  
PAH's (8310 or 8270 SIMS)  
RCRA 8 Metals  
Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)  
8081 Pesticides / 8082 PCB's  
8260B (VOA)  
8270 (Semi-VOA)  
API WATER  
Air Bubbles (Y or N)