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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

NMOCD
JAN 17 2019
DISTRICT III

Release Notification

Responsible Party

Responsible Party: BP America Production Co.	OGRID: 778	Final Report
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179	
Contact email: steven.moskal@bpx.com	Incident # *(assigned by OCD)*	
Contact mailing address: 1199 Main Ave. Suite 101, Durango CO, 81301 NVF1826734170		

Location of Release Source

Latitude: 36.68034° Longitude: -108.14487°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gallegos Canyon Unit 210	Site Type: Natural Gas Production Well (Abandoned)
Date Release Discovered: June 25, 2018	API#: 30-045-11648

Unit Letter	Section	Township	Range	County
L	31	T29N	R12W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): unknown	Volume Recovered (bbls): 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls):	Volume Recovered (bbls):
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

BGT closure sampling indicated soil impacts. The BGT removed for closure and the impacted area remediated to NMAC 19.15.29 standards.

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State of New Mexico
Oil Conservation Division

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District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☒ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature: Date: January 16, 2019

email: steven.moskal@bpx.com Telephone: (505) 330-9179

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature: Date: January 16, 2019

email: steven.moskal@bpx,com Telephone: (505) 330-9179

OCD Only

Received by: Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Date:

Printed Name: Title:

BP America

Gallegos Canyon Unit 210 - API: 30-045-11648
(L) Sec 31 – T29N – R12W, San Juan County, New Mexico

Summary Record of Impact Remediation

June 25, 2018

1. Confirmation sampling conducted of a 95 barrel below grade tank (**BGT**). 5 point composite sample (**5pcs**) collected directly beneath BGT at 4 feet (**ft.**) below grade (**b.g.**). Based on discolored soils and strong hydrocarbon odor detected beneath the BGT, a test hole was advanced within the BGT footprint. A grab sample was collected after a distinguishable change in color (to dark yellowish orange) and lack of hydrocarbon odor was observed / detected at 8 ft. b.g.

2. BGT permit and Release Rule 19.15.29 NMAC closure standards are within the laboratory results listed in the table below. NMOCD 19.15.29 NMAC site closure standard determined total petroleum hydrocarbons (**TPH**) at 100 mg/kg based on:

Distance to groundwater: > 100 ft.
Distance to nearest water source: > 1,000 ft.
Distance to nearest significant watercourse: < 300 ft.

3. Gas well to be plugged and abandoned.

4. Federal mineral lease; Private/Fee surface lease (Bolack Ranch).

June 26, 2018 Preliminary lab results were as follows;

Sample ID	Field OVM (ppm)	TPH (GRO+DRO+MRO) (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Cl^- (mg/Kg)
5PC – TB @ 4' (95)	5,134	6,500	71.1	ND	130
BGT Permit Closure Standard		**100**	**50**	**0.2**	**250**
GRAB @ 8' (95)	41.6	ND	ND	ND	620
19.15.29 NMAC Closure Standard		**100**	**50**	**10**	**600**

OVM – Organic Vapor Meter, ppm – parts per million, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, MRO – Motor Oil Range Organics, ND - not detected at the laboratory reporting limits.

June 27, 2018 Received 06/25/2018 5pcs and grab samples final laboratory reports. *Official date of impact discovery.*

September 27, 2018 Initiated remediation via excavation and haul. Impacted media later transported to Envirotech landfarm.

September 28, 2018 Conducted excavation closure sampling. Initial dimensions: 22 x 18 x 11 ft. depth. *Top five (5) ft. regarded as non-impacted soils and temporarily stockpiled.*

October 2, 2018 Received 09/28/2018 closure sample final laboratory report. Results listed below.

Excavation Closure Sample Laboratory Analytical Result
September 28, 2018 (see Figure 1 map)

Sample ID	Field OVM (ppm)	TPH (GRO+DRO+MRO) (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
Base 5-pt @ 11'	1.2	ND	ND	ND	1,100
West Walls 5-pt (4'-10')	3.1	ND	ND	ND	110
South Walls 5-pt (4'-10')	3.1	ND	ND	ND	49
East Walls 5-pt (4'-10')	3.5	ND	ND	ND	1,200
North Walls 5-pt (4'-10')	2.8	ND	ND	ND	650
19.15.29 NMAC Closure Standard		**100**	**50**	**10**	**600**

OVM – Organic Vapor Meter, ppm – parts per million, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, mg/Kg – milligram per kilogram.

October 9, 2018 Conducted excavation closure sampling. Dimensions: 30 x 27 x 16 ft. depth.
October 11, 2018 Received 10/09/2018 closure sample final laboratory report. Results listed below.

Excavation Closure Sample Laboratory Analytical Result
October 9, 2018 (see Figure 2 map)

Sample ID	Field OVM (ppm)	TPH (GRO+DRO+MRO) (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
Base 1: 5-pt @ 16'	2.3	ND	ND	ND	640
Base 2: 5-pt @ 16'	4.3	ND	ND	ND	570
Base 3: 5-pt @ 16'	1.1	10	ND	ND	ND
East Wall (South half)	0.7	ND	ND	ND	160
East Wall (North half)	0.7	ND	ND	ND	92
North Wall (East half)	0.8	ND	ND	ND	39
19.15.29 NMAC Closure Standard		**100**	**50**	**10**	**600**

OVM – Organic Vapor Meter, ppm – parts per million, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, mg/Kg – milligram per kilogram.

October 12, 2018 Conducted excavation closure sampling. Dimensions: 55 x 42 x 16 ft. depth.
October 16, 2018 Received 10/12/2018 closure sample final laboratory report. Results listed below.

Excavation Closure Sample Laboratory Analytical Result
October 12, 2018 (see Figure 3 map)

Sample ID	Map ID	Field OVM (ppm)	TPH (GRO+DRO+MRO) (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
Base #1 (south) II - 5-pt.	1	2.0	ND	ND	ND	430
Base #4 (north) - 4-pt.	2	0.4	ND	ND	ND	ND
Base #5 (northwest) - 4-pt.	3	5.8	ND	ND	ND	120
North Wall (west half) - 5-pt.	4	24.5	29	ND	ND	ND
West Wall (north half) - 5-pt.	5	0.0	ND	ND	ND	63
South Wall - 8-pt.	6	0.8	ND	ND	ND	240
19.15.29 NMAC Closure Standard			**100**	**50**	**10**	**600**

OVM – Organic Vapor Meter, ppm – parts per million, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, mg/Kg – milligram per kilogram.

October 19, 2018 Completed excavation backfilling.

SITING AND HYDRO-GEOLOGICAL REPORT FOR GALLEGOS CANYON UNIT 210 – TANK ID: 3004511648A

Siting Criteria 19.15.17.10 NMAC

Depth to groundwater at the site is estimated to be greater than 100 feet. This estimation is based on data from Stone and others (1983), and depth to groundwater data obtained from water wells permitted by the New Mexico State Engineer's Office (OSE, Figure 1). Local topography and proximity to adjacent water features is also considered. A topographic map of the site is provided as Figure 2 and demonstrates that the below grade tank (BGT) is not within 300 feet of any continuously flowing watercourse or within 200 feet of any other significant watercourse, lakebed, sinkhole or playa lake as measured from the ordinary high water mark. Figure 3 demonstrates that the BGT is not within 300 feet of a permanent residence, school, hospital, institution or church. Figure 4 demonstrates, based on a search of the OSE database and USGS topographic maps, that there are no freshwater wells or springs within 1000 feet of the BGT. Figure 5 demonstrates that the BGT is not within a municipal boundary or a defined municipal freshwater well field. Figure 6 demonstrates that the BGT is not within 500 feet of a wetland. Figure 7 demonstrates that the BGT is not in an area overlying a subsurface mine. The BGT is not located in an unstable area. Figure 8 demonstrates that the BGT is not within the mapped FEMA 100-year floodplain.

Local Geology and Hydrology

This particular site is located on a mesa top south of the San Juan River, but hundreds of feet higher in elevation. The mesa is composed of the Nacimiento Formation. Broad shaley hills are interspersed with occasional sandstone outcrops, and systems of canyons and drainages lead north to the San Juan River, which is approximately 1 mile away.

Regional Geology and Hydrology

The San Juan Basin is situated in the Navajo section of the Colorado Plateau and is characterized by broad open valleys, mesas, buttes and hogbacks. Away from major valleys and canyons topographic relief is generally low. Native vegetation is sparse and shrubby. Drainage is mainly by the San Juan River, the only permanent stream in the Navajo Section of the Colorado Plateau. The San Juan River is a tributary of the Colorado River. Major tributaries include the Animas, Chaco and La Plata Rivers. Flow of the San Juan River across the basin is regulated by the Navajo Dam, located about 30 miles northeast of Farmington, New Mexico. The climate is arid to semiarid with an average annual precipitation of 8 to 10 inches. Soils within the basin consist of weathered parent rock derived from predominantly physical means mostly from eolian depositional system with fluvial having a lesser impact.

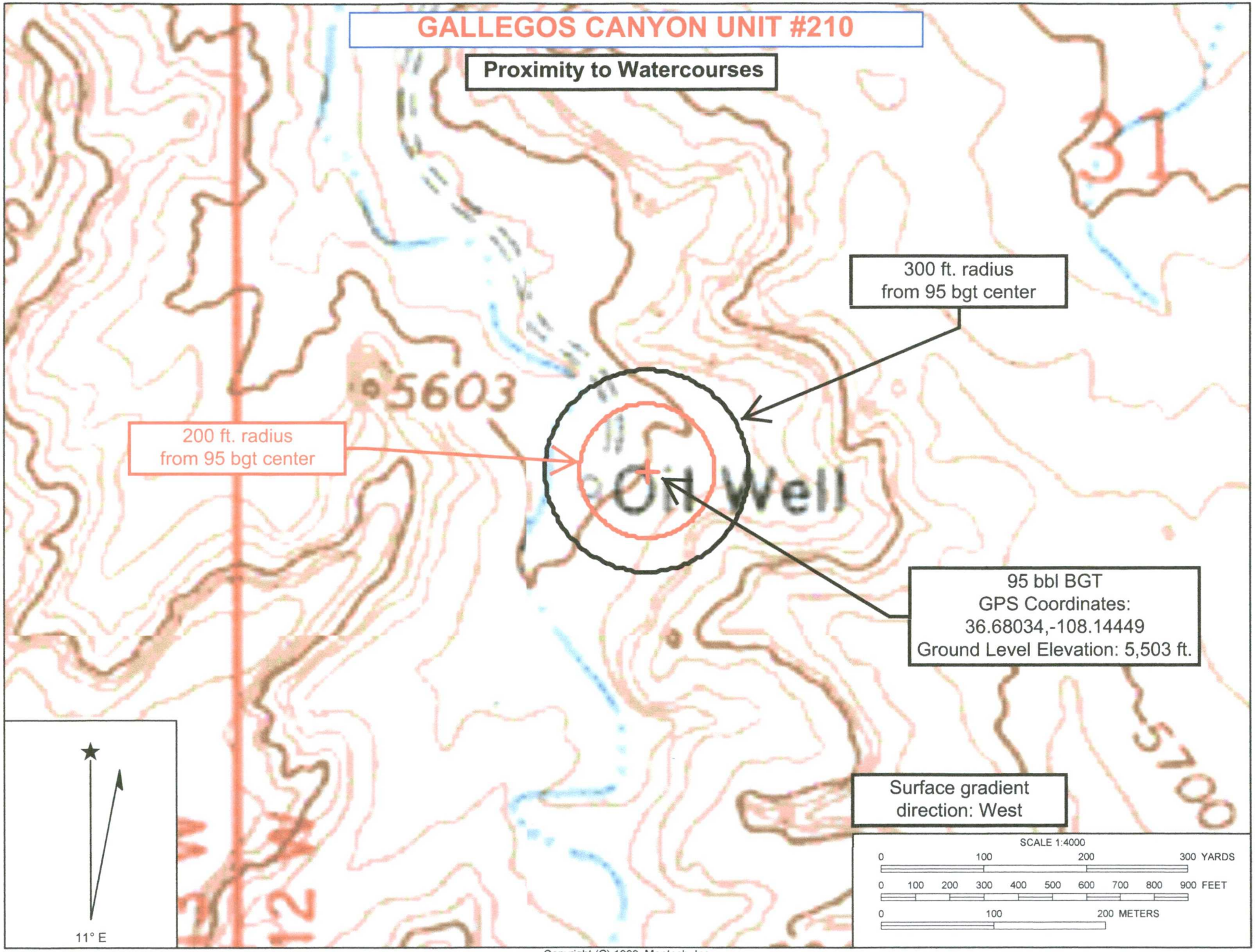
Cretaceous and Tertiary sandstones, as well as Quaternary Alluvial deposits, serve as the primary aquifers in the San Juan Basin (Stone et al., 1983). The Nacimiento Formation of Paleocene age occurs at the surface in a broad belt at the western and southern edges of the central San Juan Basin and dips beneath the San Jose Formation in the center. The lower part of the Nacimiento Formation is composed of interbedded black, carbonaceous mudstones and white coarse-grained

sandstones. The upper part is comprised of mudstone and sandstone. It is generally slope-forming, even within the sandstone units. Thickness of the Nacimiento ranges from 418 to 2232 feet. Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000 feet deep in this section of the basin. Wells within these bodies flow from 16 to 100 gallons per minute (gpm), and transmissivities are expected to be 100 ft^2/d (Stone et al, 1983). Groundwater within these aquifers flows toward the San Juan River.

References

Circular 154—Guidebook to coal geology of northwest New Mexico By E. C. Beaumont, J. W. Shomaker, W. J. Stone, and others, 1976

Stone, et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico, Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p



CONFIRMATION SAMPLING / INITIAL RELEASE INVESTIGATION

CLIENT: BP

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

API #: 3004511648
TANK ID (if applicble): A

FIELD REPORT:

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

PAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: GCU # 210

QUAD/UNIT: L SEC: 31 TWP: 29N RNG: 12W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 1,720'S / 1,140'W NW/SW LEASE TYPE: FEDERAL / STATE / FEE / [INDIAN]

LEASE #: SF078109 PROD. FORMATION: DK CONTRACTOR: STRIKE BP - J. GONZALES

DATE STARTED: 06/25/18

DATE FINISHED:

ENVIRONMENTAL SPECIALIST(S): NJV

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.68040 X 108.14487 GL ELEV.: 5,503'

1) 95 BGT (SW/SB) GPS COORD.: 36.68034 X 108.14449 DISTANCE/BEARING FROM W.H.: 111', S78E

2) GPS COORD.: DISTANCE/BEARING FROM W.H.:

3) GPS COORD.: DISTANCE/BEARING FROM W.H.:

4) GPS COORD.: DISTANCE/BEARING FROM W.H.:

SAMPLING DATA:

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

	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:	OVM READING (ppm)
1)	5PC - TB @ 4' (95)	06/25/18	1330	8015B/8021B/300.0 (Cl)	5,134
2)					
3)					
4)					
5)					

SOIL DESCRIPTION:

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

SOIL COLOR: MOSTLY DARK YELLOWISH ORANGE

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

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

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

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

DISCOLORATION/STAINING OBSERVED: [YES] / NO EXPLANATION - LIGHT GRAY TO BLACK AT 4 - 5 FT. BELOW GRADE

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

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

HC ODOR DETECTED: [YES] / NO EXPLANATION - DISCOLORED SOILS ONLY

ANY AREAS DISPLAYING WETNESS: [YES] / NO EXPLANATION - DIRECTLY BENEATH BGT

SITE OBSERVATIONS:

LOST INTEGRITY OF EQUIPMENT: [YES] / NO EXPLANATION - BGT SIDEWALLS & BOTTOM

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: [YES] / NO EXPLANATION: PHYSICALLY OBSERVED & DETECTED

EQUIPMENT SET OVER RECLAIMED AREA: YES / [NO] EXPLANATION -

OTHER: NMOCD REP. PRESENT TO WITNESS CONFIRMATION SAMPLING. BGT HAD WELDED CONE TOP & WAS 15 FT. IN DIAMETER.

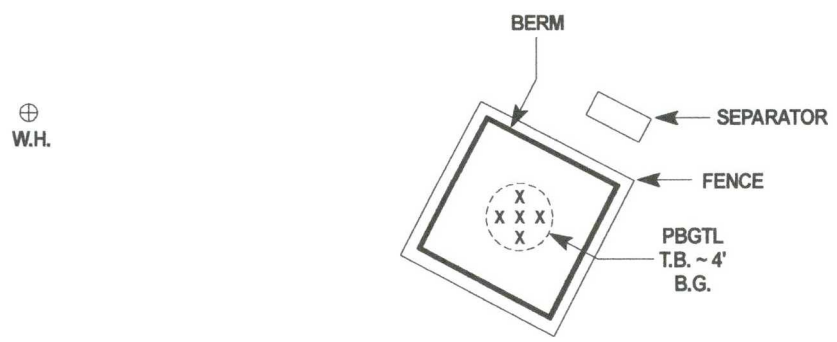
EXCAVATION DIMENSION ESTIMATION: _____ ft. X _____ ft. X _____ ft. EXCAVATION ESTIMATION (Cubic Yards) : _____

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

SITE SKETCH

BGT Located : off / [on] site

PLOT PLAN circle: attached



OVM CALIB. READ. = 99.6 ppm RF =1.00

OVM CALIB. GAS = 100 ppm

TIME: 2:05 am/pm DATE: 06/25/18

MISCELL. NOTES

WO:

REF #: P-999

VID: VHIXONEVB2

PJ #:

Permit date(s): 06/08/10

OCD Appr. date(s): 02/26/18

Tank ID	OVM = Organic Vapor Meter ppm = parts per million
A	BGT Sidewalls Visible: (Y) / N
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N

Magnetic declination: 10° E

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

NOTES: GOOGLE EARTH IMAGERY DATE: 2018 GOOGLE. ONSITE: 06/25/18

Analytical Report
Lab Order **1806F19**
Date Reported: **6/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1806F19-001 **Matrix:** SOIL

Client Sample ID: 5PC-TB @ 4' (95)
Collection Date: 6/25/2018 1:30:00 PM
Received Date: 6/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	130	30		mg/Kg	20	6/26/2018 12:44:00 PM	38882
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	4000	88		mg/Kg	10	6/26/2018 11:00:24 AM	38880
Motor Oil Range Organics (MRO)	1400	440		mg/Kg	10	6/26/2018 11:00:24 AM	38880
Surr: DNOP	0	70-130	S	%Rec	10	6/26/2018 11:00:24 AM	38880
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1100	70		mg/Kg	20	6/26/2018 12:12:52 PM	38874
Surr: BFB	553	15-316	S	%Rec	20	6/26/2018 12:12:52 PM	38874
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.35		mg/Kg	20	6/26/2018 12:12:52 PM	38874
Toluene	ND	0.70		mg/Kg	20	6/26/2018 12:12:52 PM	38874
Ethylbenzene	4.1	0.70		mg/Kg	20	6/26/2018 12:12:52 PM	38874
Xylenes, Total	67	1.4		mg/Kg	20	6/26/2018 12:12:52 PM	38874
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	20	6/26/2018 12:12:52 PM	38874

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

Qualifiers:

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

CLIENT: BP

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

API #: 3004511648
TANK ID (if applicble): A

FIELD REPORT:

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

PAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: GCU # 210

DATE STARTED: 06/25/18
DATE FINISHED:

QUAD/UNIT: L SEC: 31 TWP: 29N RNG: 12W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 1,720'S / 1,140'W NW/SW LEASE TYPE: FEDERAL / STATE / FEE / [INDIAN]

LEASE #: SF078109 PROD. FORMATION: DK CONTRACTOR: STRIKE BP - J. GONZALES

ENVIRONMENTAL SPECIALIST(S): NJV

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.68040 X 108.14487 GL ELEV.: 5,503'

1) 95 BGT (SW/SB)	GPS COORD.: 36.68034 X 108.14449	DISTANCE/BEARING FROM W.H.: 111', S78E
2)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:
3)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:
4)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:

SAMPLING DATA:

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

	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:	OVM READING (ppm)
1)	GRAB @ 8' (95)	06/25/18	1335	8015B/8021B/300.0 (Cl)	41.6
2)				8015B/8021B/300.0 (Cl)	
3)					
4)					
5)					

SOIL DESCRIPTION:

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

SOIL COLOR: MOSTLY DARK YELLOWISH ORANGE

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

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

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

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

DISCOLORATION/STAINING OBSERVED: [YES] / NO EXPLANATION - LIGHT GRAY TO BLACK BETWEEN 4 - 8 FT. BELOW GRADE

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

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

HC ODOR DETECTED: [YES] / NO EXPLANATION - DISCOLORED SOILS ONLY

ANY AREAS DISPLAYING WETNESS: [YES] / NO EXPLANATION - DIRECTLY BENEATH BGT

SITE OBSERVATIONS:

LOST INTEGRITY OF EQUIPMENT: [YES] / NO EXPLANATION - BGT SIDEWALLS & BOTTOM

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED : [YES] / NO EXPLANATION: PHYSICALLY OBSERVED & DETECTED

EQUIPMENT SET OVER RECLAIMED AREA: YES / [NO] EXPLANATION -

OTHER: NMOCD OR BLM REPS. NOT PRESENT TO WITNESS CONFIRMATION SAMPLING. BGT HAD WELDED CONE TOP & WAS 15 FT. IN DIAMETER.

EXCAVATION DIMENSION ESTIMATION: _____ ft. X _____ ft. X _____ ft. EXCAVATION ESTIMATION (Cubic Yards) : _____

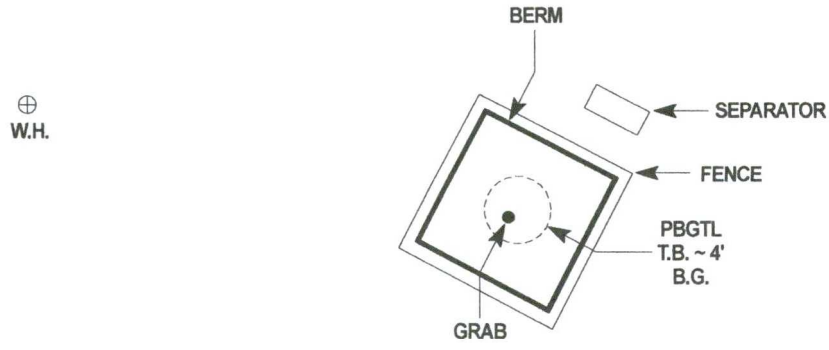
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: <1,000' NMOCD TPH CLOSURE STD: 1,000 ppm

SITE SKETCH

BGT Located : off / [on] site

PLOT PLAN circle: attached

OVM CALIB. READ. = 99.6 ppm RF =1.00
OVM CALIB. GAS = 100 ppm
TIME: 2:05 am/(pm) DATE: 06/25/18



● - S.P.D.

MISCELL. NOTES

WO:
REF #: P-999
VID: VHIXONEVB2
PJ #:
Permit date(s): 06/08/10
OCD Appr. date(s): 02/26/18

OVM = Organic Vapor Meter
ppm = parts per million

Tank ID	
A	BGT Sidewalls Visible: (Y) / N
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N

Magnetic declination: 10° E

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

NOTES: GOOGLE EARTH IMAGERY DATE: 2018 GOOGLE. ONSITE: 06/25/18

Analytical Report
Lab Order **1806F18**
Date Reported: **6/27/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1806F18-001 **Matrix:** SOIL

Client Sample ID: GRAB @ 8' (95)
Collection Date: 6/25/2018 1:35:00 PM
Received Date: 6/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	620	30		mg/Kg	20	6/26/2018 12:06:45 PM	38882
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/26/2018 10:11:25 AM	38880
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/26/2018 10:11:25 AM	38880
Surr: DNOP	94.1	70-130		%Rec	1	6/26/2018 10:11:25 AM	38880
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/26/2018 11:49:27 AM	38874
Surr: BFB	76.5	15-316		%Rec	1	6/26/2018 11:49:27 AM	38874
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	6/26/2018 11:49:27 AM	38874
Toluene	ND	0.036		mg/Kg	1	6/26/2018 11:49:27 AM	38874
Ethylbenzene	ND	0.036		mg/Kg	1	6/26/2018 11:49:27 AM	38874
Xylenes, Total	ND	0.071		mg/Kg	1	6/26/2018 11:49:27 AM	38874
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	6/26/2018 11:49:27 AM	38874

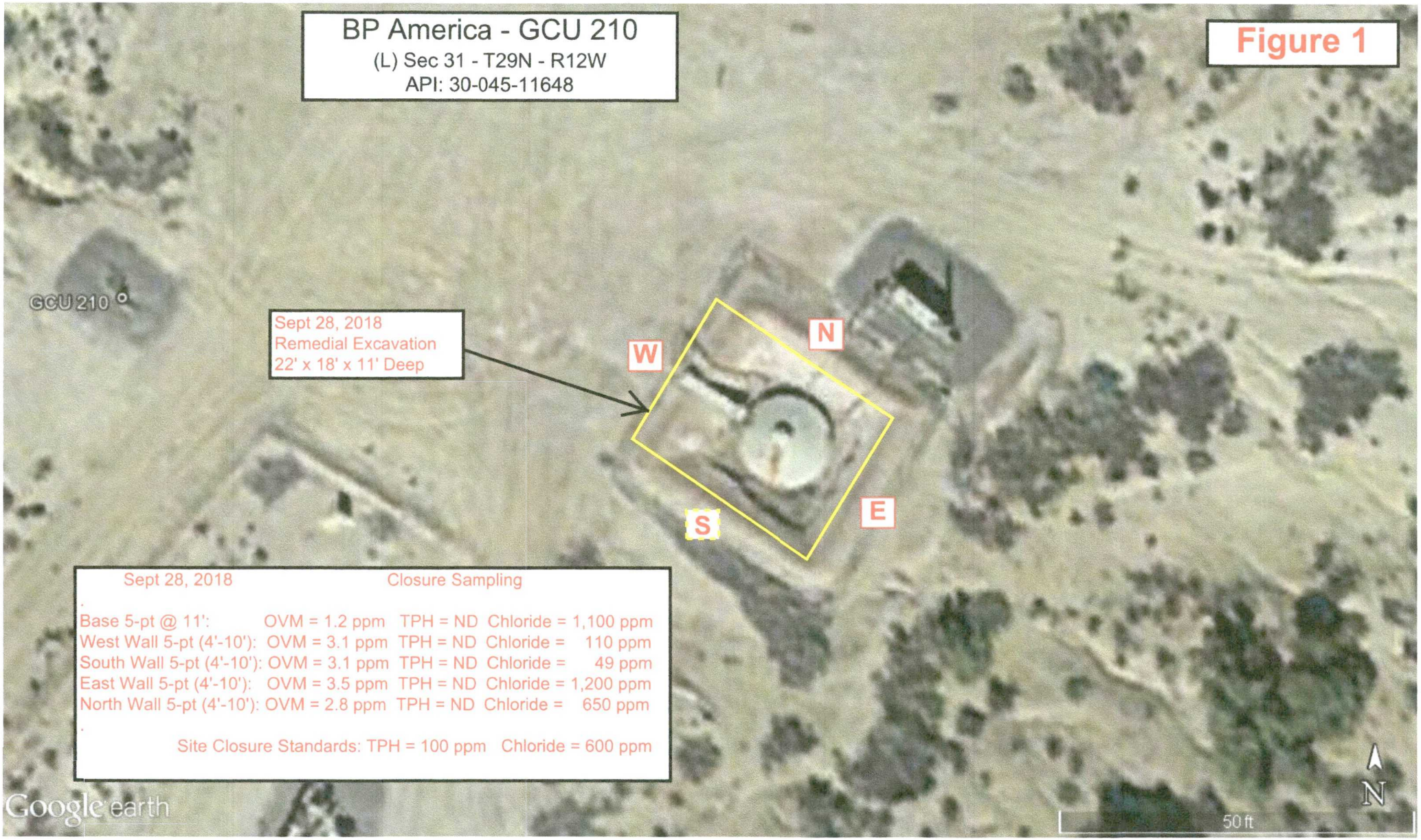
Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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

Remediation

09/28/2018


BP America - GCU 210
(L) Sec 31 - T29N - R12W
API: 30-045-11648
Figure 1
GCU 210
Sept 28, 2018
Remedial Excavation
22' x 18' x 11' Deep
W
N
E
S
Sept 28, 2018 Closure Sampling
Base 5-pt @ 11': OVM = 1.2 ppm TPH = ND Chloride = 1,100 ppm
West Wall 5-pt (4'-10'): OVM = 3.1 ppm TPH = ND Chloride = 110 ppm
South Wall 5-pt (4'-10'): OVM = 3.1 ppm TPH = ND Chloride = 49 ppm
East Wall 5-pt (4'-10'): OVM = 3.5 ppm TPH = ND Chloride = 1,200 ppm
North Wall 5-pt (4'-10'): OVM = 2.8 ppm TPH = ND Chloride = 650 ppm
Site Closure Standards: TPH = 100 ppm Chloride = 600 ppm
Google earth
50 ft
N

Analytical Report
Lab Order **1809H96**
Date Reported: **10/2/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1809H96-001
Matrix: MEOH (SOIL)
Client Sample ID: Base 5-pt @ 11'
Collection Date: 9/28/2018 1:21:00 PM
Received Date: 9/29/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	1100	30		mg/Kg	20	10/1/2018 11:15:28 AM	40701
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/1/2018 1:46:47 PM	40692
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2018 1:46:47 PM	40692
Surr: DNOP	103	50.6-138		%Rec	1	10/1/2018 1:46:47 PM	40692
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/1/2018 11:20:06 AM	G54538
Surr: BFB	94.5	15-316		%Rec	1	10/1/2018 11:20:06 AM	G54538
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	10/1/2018 11:20:06 AM	B54538
Toluene	ND	0.040		mg/Kg	1	10/1/2018 11:20:06 AM	B54538
Ethylbenzene	ND	0.040		mg/Kg	1	10/1/2018 11:20:06 AM	B54538
Xylenes, Total	ND	0.081		mg/Kg	1	10/1/2018 11:20:06 AM	B54538
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	10/1/2018 11:20:06 AM	B54538

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: West Wall 5-pt
Project: GCU 210
Collection Date: 9/28/2018 1:12:00 PM
Lab ID: 1809H96-002
Matrix: MEOH (SOIL)
Received Date: 9/29/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	110	30		mg/Kg	20	10/1/2018 11:27:52 AM	40701
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/1/2018 2:11:16 PM	40692
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2018 2:11:16 PM	40692
Surr: DNOP	101	50.6-138		%Rec	1	10/1/2018 2:11:16 PM	40692
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/1/2018 11:43:27 AM	G54538
Surr: BFB	93.6	15-316		%Rec	1	10/1/2018 11:43:27 AM	G54538
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	10/1/2018 11:43:27 AM	B54538
Toluene	ND	0.038		mg/Kg	1	10/1/2018 11:43:27 AM	B54538
Ethylbenzene	ND	0.038		mg/Kg	1	10/1/2018 11:43:27 AM	B54538
Xylenes, Total	ND	0.077		mg/Kg	1	10/1/2018 11:43:27 AM	B54538
Surr: 4-Bromofluorobenzene	91.4	80-120		%Rec	1	10/1/2018 11:43:27 AM	B54538

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1809H96-003

Client Sample ID: South Wall 5-pt
Collection Date: 9/28/2018 1:18:00 PM
Matrix: MEOH (SOIL) **Received Date:** 9/29/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	49	30		mg/Kg	20	10/1/2018 11:40:16 AM	40701
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/1/2018 2:35:56 PM	40692
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/1/2018 2:35:56 PM	40692
Surr: DNOP	102	50.6-138		%Rec	1	10/1/2018 2:35:56 PM	40692
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	10/1/2018 12:06:43 PM	G54538
Surr: BFB	92.5	15-316		%Rec	1	10/1/2018 12:06:43 PM	G54538
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	10/1/2018 12:06:43 PM	B54538
Toluene	ND	0.045		mg/Kg	1	10/1/2018 12:06:43 PM	B54538
Ethylbenzene	ND	0.045		mg/Kg	1	10/1/2018 12:06:43 PM	B54538
Xylenes, Total	ND	0.091		mg/Kg	1	10/1/2018 12:06:43 PM	B54538
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	1	10/1/2018 12:06:43 PM	B54538

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: East Wall 5-pt
Project: GCU 210
Collection Date: 9/28/2018 1:25:00 PM
Lab ID: 1809H96-004
Matrix: MEOH (SOIL)
Received Date: 9/29/2018 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	1200	75		mg/Kg	50	10/1/2018 2:09:11 PM	40701
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/1/2018 3:00:29 PM	40692
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2018 3:00:29 PM	40692
Surr: DNOP	98.9	50.6-138		%Rec	1	10/1/2018 3:00:29 PM	40692
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/1/2018 12:29:57 PM	G54538
Surr: BFB	94.0	15-316		%Rec	1	10/1/2018 12:29:57 PM	G54538
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	10/1/2018 12:29:57 PM	B54538
Toluene	ND	0.041		mg/Kg	1	10/1/2018 12:29:57 PM	B54538
Ethylbenzene	ND	0.041		mg/Kg	1	10/1/2018 12:29:57 PM	B54538
Xylenes, Total	ND	0.082		mg/Kg	1	10/1/2018 12:29:57 PM	B54538
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	10/1/2018 12:29:57 PM	B54538

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1809H96-005
Matrix: MEOH (SOIL)
Client Sample ID: North Wall 5-pt
Collection Date: 9/28/2018 1:31:00 PM
Received Date: 9/29/2018 10:05:00 AM

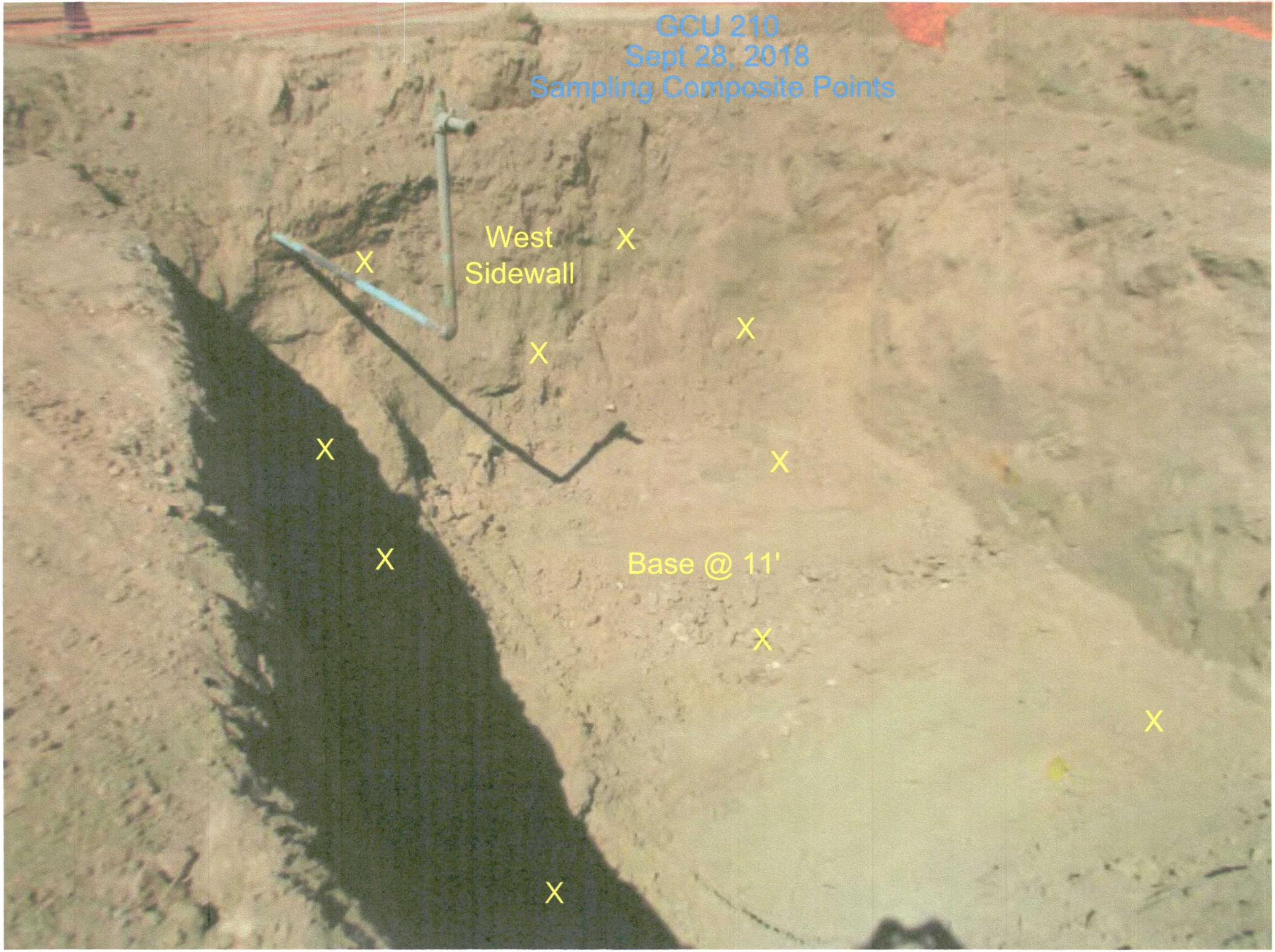
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	650	30		mg/Kg	20	10/1/2018 12:05:06 PM	40701
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/1/2018 3:25:22 PM	40692
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2018 3:25:22 PM	40692
Surr: DNOP	104	50.6-138		%Rec	1	10/1/2018 3:25:22 PM	40692
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	10/1/2018 12:53:16 PM	G54538
Surr: BFB	95.2	15-316		%Rec	1	10/1/2018 12:53:16 PM	G54538
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	10/1/2018 12:53:16 PM	B54538
Toluene	ND	0.036		mg/Kg	1	10/1/2018 12:53:16 PM	B54538
Ethylbenzene	ND	0.036		mg/Kg	1	10/1/2018 12:53:16 PM	B54538
Xylenes, Total	ND	0.073		mg/Kg	1	10/1/2018 12:53:16 PM	B54538
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	10/1/2018 12:53:16 PM	B54538

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

Qualifiers:

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


GCU 210
Sept 28, 2018
Sampling Composite Points
East
Sidewall
South
Sidewall
North
Sidewall


GCU 210
Sept 28, 2018
Sampling Composite Points
West
Sidewall
X
X
X
X
X
X
X
X
X
Base @ 11'
X
X
X

Remediation

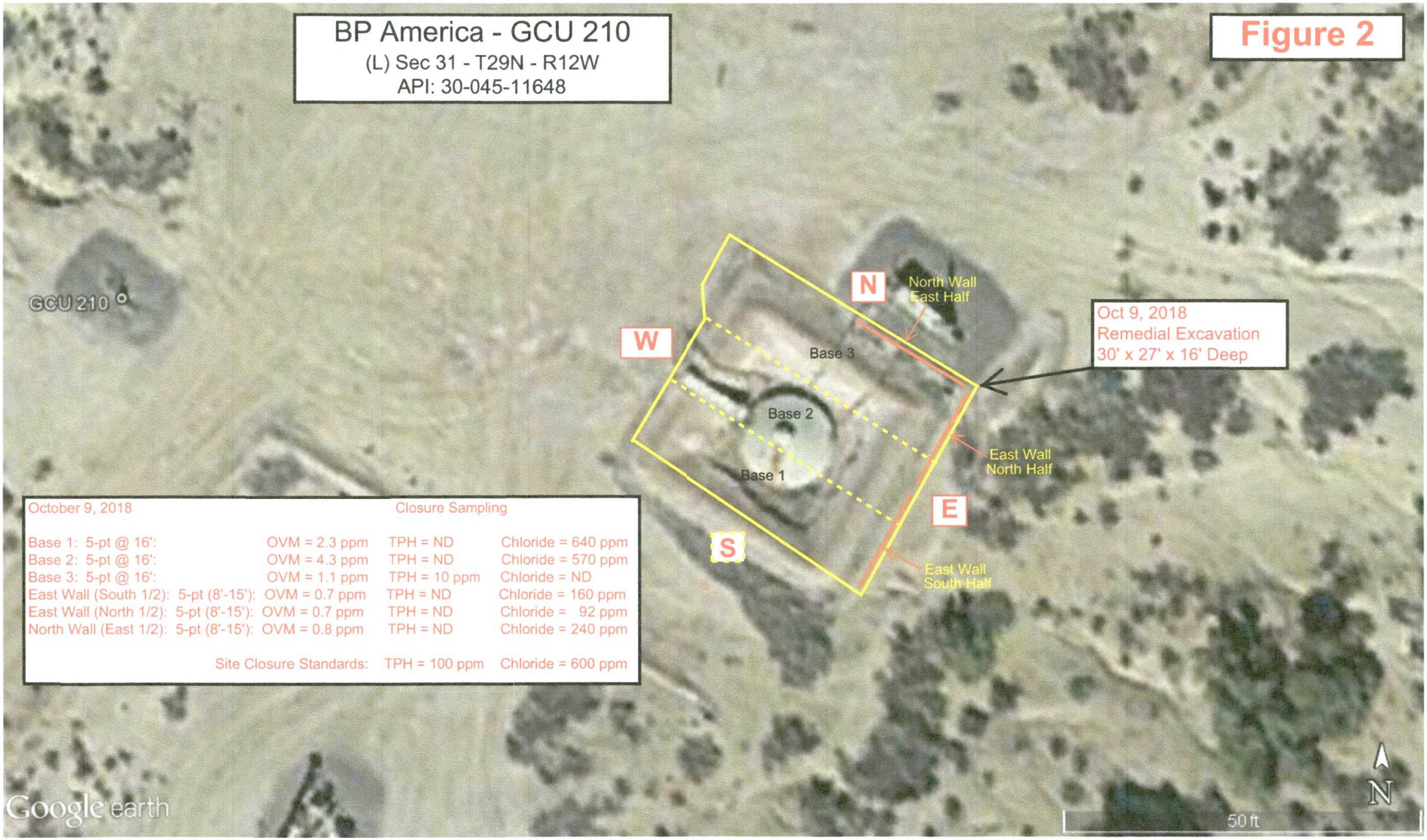
10/09/2018

BP America - GCU 210

(L) Sec 31 - T29N - R12W

API: 30-045-11648

Figure 2



October 9, 2018		Closure Sampling	
Base 1: 5-pt @ 16':	OVM = 2.3 ppm	TPH = ND	Chloride = 640 ppm
Base 2: 5-pt @ 16':	OVM = 4.3 ppm	TPH = ND	Chloride = 570 ppm
Base 3: 5-pt @ 16':	OVM = 1.1 ppm	TPH = 10 ppm	Chloride = ND
East Wall (South 1/2): 5-pt (8'-15'):	OVM = 0.7 ppm	TPH = ND	Chloride = 160 ppm
East Wall (North 1/2): 5-pt (8'-15'):	OVM = 0.7 ppm	TPH = ND	Chloride = 92 ppm
North Wall (East 1/2): 5-pt (8'-15'):	OVM = 0.8 ppm	TPH = ND	Chloride = 240 ppm
	Site Closure Standards:	TPH = 100 ppm	Chloride = 600 ppm

Analytical Report
Lab Order **1810554**
Date Reported: **10/11/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-001

Client Sample ID: Base #1 (South)
Collection Date: 10/9/2018 2:00:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	640	30		mg/Kg	20	10/10/2018 10:55:28 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/10/2018 11:27:36 AM	40918
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/10/2018 11:27:36 AM	40918
Surr: DNOP	122	50.6-138		%Rec	1	10/10/2018 11:27:36 AM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	10/10/2018 12:57:38 PM	G54774
Surr: BFB	93.5	15-316		%Rec	1	10/10/2018 12:57:38 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	10/10/2018 12:57:38 PM	B54774
Toluene	ND	0.043		mg/Kg	1	10/10/2018 12:57:38 PM	B54774
Ethylbenzene	ND	0.043		mg/Kg	1	10/10/2018 12:57:38 PM	B54774
Xylenes, Total	ND	0.086		mg/Kg	1	10/10/2018 12:57:38 PM	B54774
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	10/10/2018 12:57:38 PM	B54774

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-002

Client Sample ID: Base #2 (Mid)
Collection Date: 10/9/2018 2:04:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	570	30		mg/Kg	20	10/10/2018 11:07:52 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/10/2018 11:51:58 AM	40918
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/10/2018 11:51:58 AM	40918
Surr: DNOP	104	50.6-138		%Rec	1	10/10/2018 11:51:58 AM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/10/2018 1:21:15 PM	G54774
Surr: BFB	89.5	15-316		%Rec	1	10/10/2018 1:21:15 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/10/2018 1:21:15 PM	B54774
Toluene	ND	0.038		mg/Kg	1	10/10/2018 1:21:15 PM	B54774
Ethylbenzene	ND	0.038		mg/Kg	1	10/10/2018 1:21:15 PM	B54774
Xylenes, Total	ND	0.076		mg/Kg	1	10/10/2018 1:21:15 PM	B54774
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	10/10/2018 1:21:15 PM	B54774

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-003

Client Sample ID: Base #3 (North)
Collection Date: 10/9/2018 3:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/10/2018 11:20:17 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	10	9.7		mg/Kg	1	10/10/2018 12:16:26 PM	40918
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/10/2018 12:16:26 PM	40918
Surr: DNOP	107	50.6-138		%Rec	1	10/10/2018 12:16:26 PM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/10/2018 1:44:45 PM	G54774
Surr: BFB	89.7	15-316		%Rec	1	10/10/2018 1:44:45 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/10/2018 1:44:45 PM	B54774
Toluene	ND	0.038		mg/Kg	1	10/10/2018 1:44:45 PM	B54774
Ethylbenzene	ND	0.038		mg/Kg	1	10/10/2018 1:44:45 PM	B54774
Xylenes, Total	ND	0.075		mg/Kg	1	10/10/2018 1:44:45 PM	B54774
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	10/10/2018 1:44:45 PM	B54774

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-004
Matrix: MEOH (SOIL)
Client Sample ID: East Wall (South Half)
Collection Date: 10/9/2018 2:34:00 PM
Received Date: 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	160	30		mg/Kg	20	10/10/2018 11:32:41 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/10/2018 12:40:51 PM	40918
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/10/2018 12:40:51 PM	40918
Surr: DNOP	104	50.6-138		%Rec	1	10/10/2018 12:40:51 PM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	10/10/2018 2:08:05 PM	G54774
Surr: BFB	89.2	15-316		%Rec	1	10/10/2018 2:08:05 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/10/2018 2:08:05 PM	B54774
Toluene	ND	0.037		mg/Kg	1	10/10/2018 2:08:05 PM	B54774
Ethylbenzene	ND	0.037		mg/Kg	1	10/10/2018 2:08:05 PM	B54774
Xylenes, Total	ND	0.075		mg/Kg	1	10/10/2018 2:08:05 PM	B54774
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	10/10/2018 2:08:05 PM	B54774

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-005
Matrix: MEOH (SOIL)
Client Sample ID: East Wall (North Half)
Collection Date: 10/9/2018 2:40:00 PM
Received Date: 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	92	30		mg/Kg	20	10/10/2018 11:45:05 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/10/2018 1:05:26 PM	40918
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/10/2018 1:05:26 PM	40918
Surr: DNOP	106	50.6-138		%Rec	1	10/10/2018 1:05:26 PM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	10/10/2018 2:31:23 PM	G54774
Surr: BFB	88.9	15-316		%Rec	1	10/10/2018 2:31:23 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	10/10/2018 2:31:23 PM	B54774
Toluene	ND	0.042		mg/Kg	1	10/10/2018 2:31:23 PM	B54774
Ethylbenzene	ND	0.042		mg/Kg	1	10/10/2018 2:31:23 PM	B54774
Xylenes, Total	ND	0.083		mg/Kg	1	10/10/2018 2:31:23 PM	B54774
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	10/10/2018 2:31:23 PM	B54774

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 210
Lab ID: 1810554-006
Matrix: MEOH (SOIL)
Client Sample ID: North Wall (East Half)
Collection Date: 10/9/2018 2:45:00 PM
Received Date: 10/10/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	39	30		mg/Kg	20	10/10/2018 11:57:30 AM	40919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/10/2018 1:29:53 PM	40918
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/10/2018 1:29:53 PM	40918
Surr: DNOP	105	50.6-138		%Rec	1	10/10/2018 1:29:53 PM	40918
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/10/2018 2:54:46 PM	G54774
Surr: BFB	90.3	15-316		%Rec	1	10/10/2018 2:54:46 PM	G54774
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	10/10/2018 2:54:46 PM	B54774
Toluene	ND	0.041		mg/Kg	1	10/10/2018 2:54:46 PM	B54774
Ethylbenzene	ND	0.041		mg/Kg	1	10/10/2018 2:54:46 PM	B54774
Xylenes, Total	ND	0.082		mg/Kg	1	10/10/2018 2:54:46 PM	B54774
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	10/10/2018 2:54:46 PM	B54774

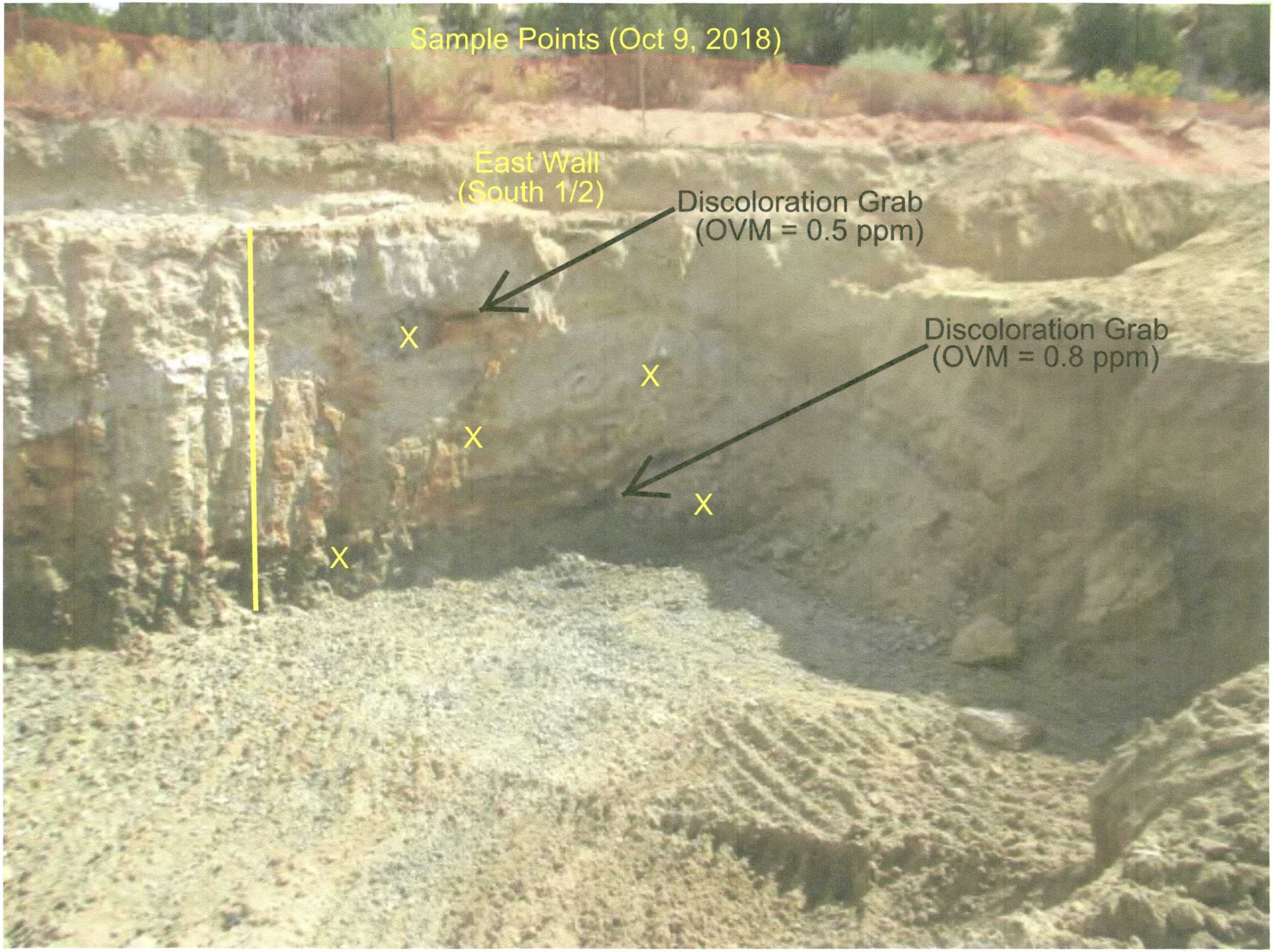
Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

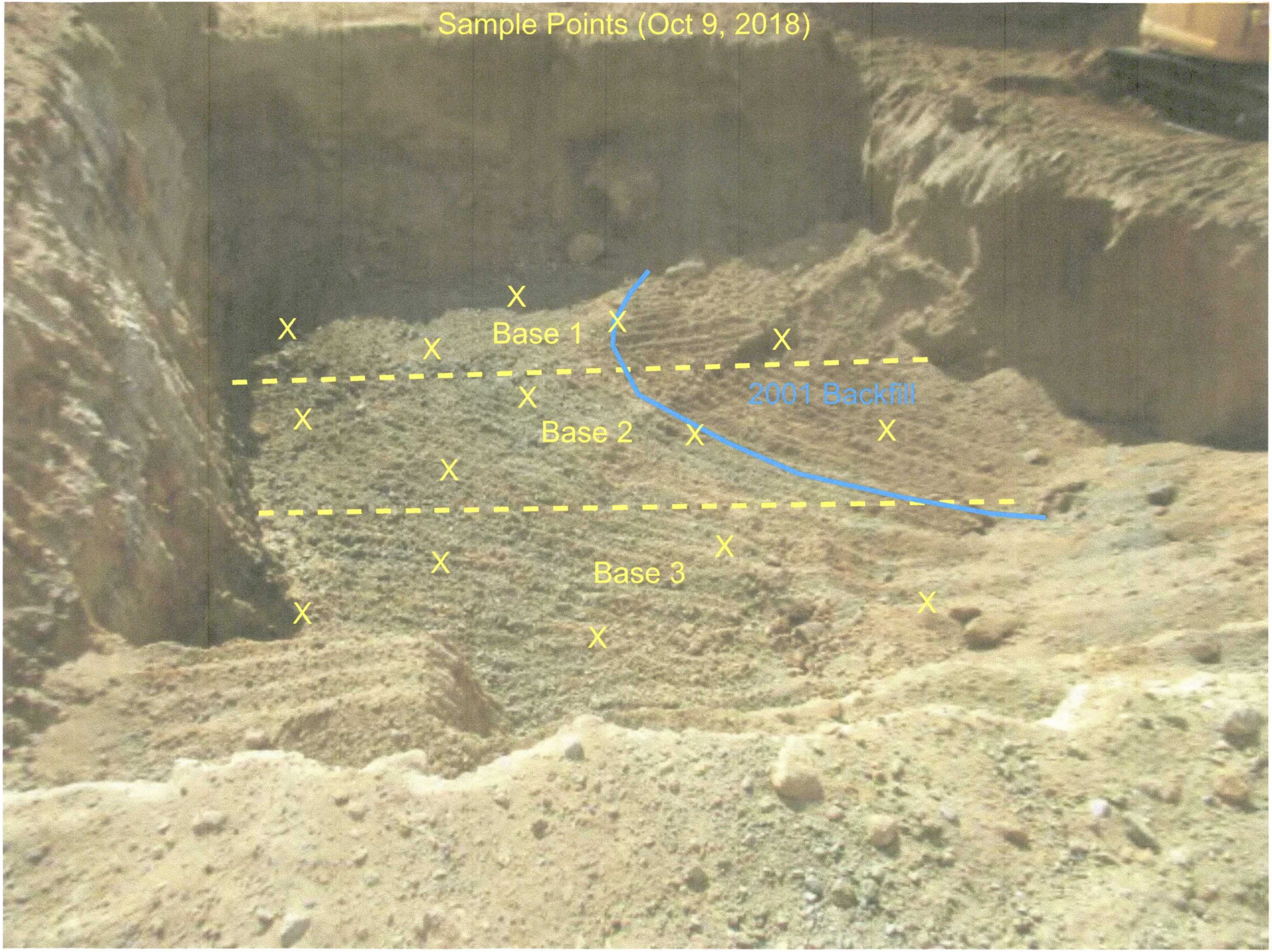
Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	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 Points (Oct 9, 2018)
North Wall
(East 1/2)
X
X
X
X
X

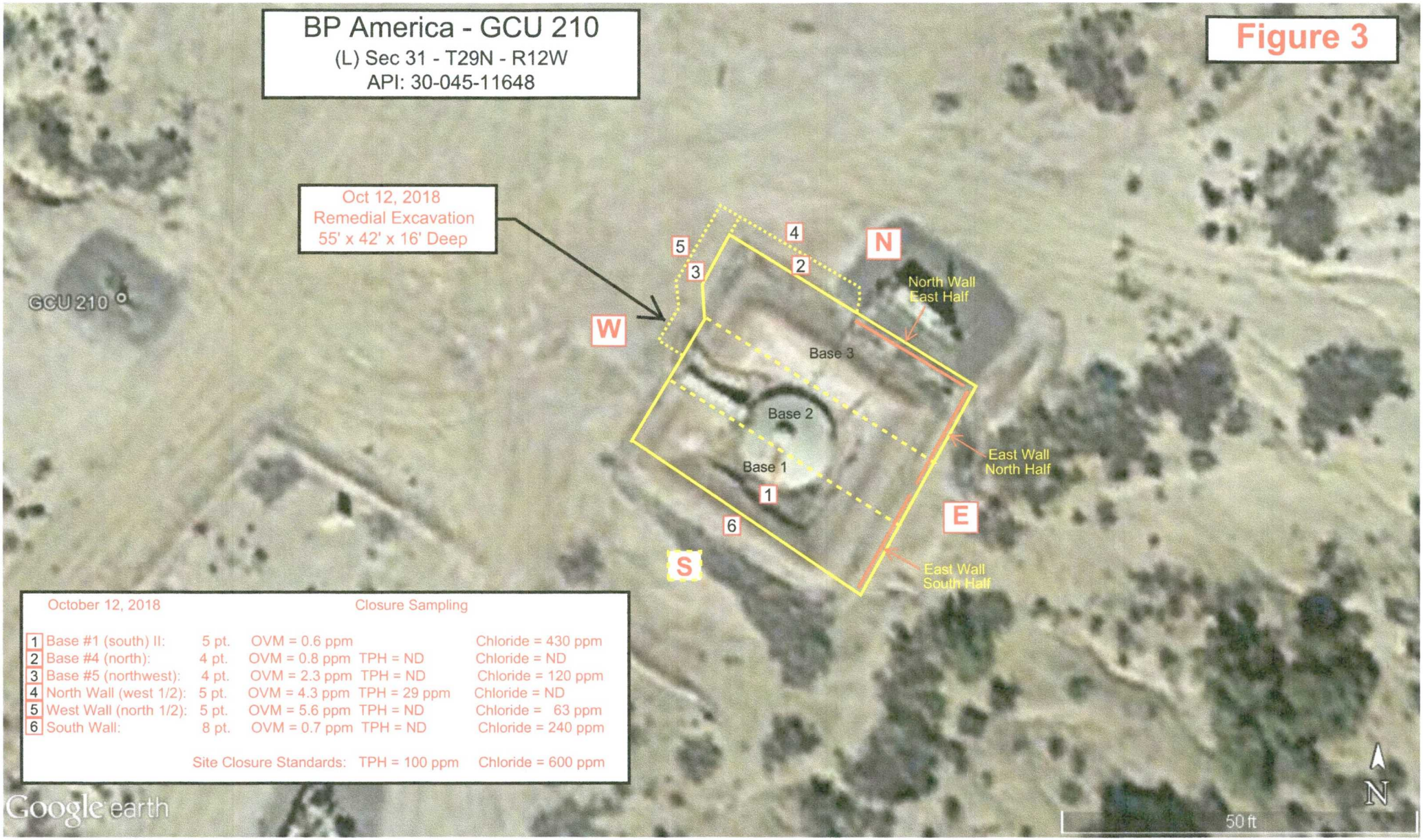

Sample Points (Oct 9, 2018)
East Wall
(North 1/2)
Discoloration Grab
(OVM = 0.7 ppm)
X
X
X
X
X


Sample Points (Oct 9, 2018)
East Wall
(South 1/2)
Discoloration Grab
(OVM = 0.5 ppm)
Discoloration Grab
(OVM = 0.8 ppm)
X
X
X
X
X


Sample Points (Oct 9, 2018)
Base 1
Base 2
Base 3
2001 Backfill

Remediation

10/12/2018


BP America - GCU 210
(L) Sec 31 - T29N - R12W
API: 30-045-11648
Figure 3
Oct 12, 2018
Remedial Excavation
55' x 42' x 16' Deep
GCU 210
N
W
E
S
North Wall
East Half
East Wall
North Half
East Wall
South Half
Base 3
Base 2
Base 1
1
2
3
4
5
6
October 12, 2018 Closure Sampling
1 Base #1 (south) II: 5 pt. OVM = 0.6 ppm Chloride = 430 ppm
2 Base #4 (north): 4 pt. OVM = 0.8 ppm TPH = ND Chloride = ND
3 Base #5 (northwest): 4 pt. OVM = 2.3 ppm TPH = ND Chloride = 120 ppm
4 North Wall (west 1/2): 5 pt. OVM = 4.3 ppm TPH = 29 ppm Chloride = ND
5 West Wall (north 1/2): 5 pt. OVM = 5.6 ppm TPH = ND Chloride = 63 ppm
6 South Wall: 8 pt. OVM = 0.7 ppm TPH = ND Chloride = 240 ppm
Site Closure Standards: TPH = 100 ppm Chloride = 600 ppm
Google earth
50 ft
N

Analytical Report
Lab Order **1810786**
Date Reported: **10/16/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-001

Client Sample ID: Base #1 (South) 2
Collection Date: 10/12/2018 1:16:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	430	30		mg/Kg	20	10/15/2018 12:19:44 PM	41001

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-002
Matrix: MEOH (SOIL)
Client Sample ID: North Wall (West Half)
Collection Date: 10/12/2018 1:52:00 PM
Received Date: 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/15/2018 12:56:59 PM	41001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	10/15/2018 10:58:54 AM	40997
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/15/2018 10:58:54 AM	40997
Surr: DNOP	93.8	50.6-138		%Rec	1	10/15/2018 10:58:54 AM	40997
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/15/2018 11:49:31 AM	40985
Surr: BFB	89.8	15-316		%Rec	1	10/15/2018 11:49:31 AM	40985
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/15/2018 11:49:31 AM	40985
Toluene	ND	0.039		mg/Kg	1	10/15/2018 11:49:31 AM	40985
Ethylbenzene	ND	0.039		mg/Kg	1	10/15/2018 11:49:31 AM	40985
Xylenes, Total	ND	0.078		mg/Kg	1	10/15/2018 11:49:31 AM	40985
Surr: 4-Bromofluorobenzene	90.8	80-120		%Rec	1	10/15/2018 11:49:31 AM	40985

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-003
Matrix: MEOH (SOIL)
Client Sample ID: Base #4 (North)
Collection Date: 10/12/2018 1:37:00 PM
Received Date: 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	10/15/2018 1:09:23 PM	41001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/15/2018 11:20:45 AM	40997
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/15/2018 11:20:45 AM	40997
Surr: DNOP	99.7	50.6-138		%Rec	1	10/15/2018 11:20:45 AM	40997
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/15/2018 12:12:53 PM	40985
Surr: BFB	86.7	15-316		%Rec	1	10/15/2018 12:12:53 PM	40985
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/15/2018 12:12:53 PM	40985
Toluene	ND	0.039		mg/Kg	1	10/15/2018 12:12:53 PM	40985
Ethylbenzene	ND	0.039		mg/Kg	1	10/15/2018 12:12:53 PM	40985
Xylenes, Total	ND	0.078		mg/Kg	1	10/15/2018 12:12:53 PM	40985
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	10/15/2018 12:12:53 PM	40985

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

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
PQL	Practical Quanitative Limit
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, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-004

Client Sample ID: Base #5 (North West)
Collection Date: 10/12/2018 1:27:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	30		mg/Kg	20	10/15/2018 1:21:47 PM	41001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/15/2018 11:42:42 AM	40997
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/15/2018 11:42:42 AM	40997
Surr: DNOP	98.5	50.6-138		%Rec	1	10/15/2018 11:42:42 AM	40997
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/15/2018 12:39:57 PM	40985
Surr: BFB	89.5	15-316		%Rec	1	10/15/2018 12:39:57 PM	40985
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/15/2018 12:39:57 PM	40985
Toluene	ND	0.038		mg/Kg	1	10/15/2018 12:39:57 PM	40985
Ethylbenzene	ND	0.038		mg/Kg	1	10/15/2018 12:39:57 PM	40985
Xylenes, Total	ND	0.076		mg/Kg	1	10/15/2018 12:39:57 PM	40985
Surr: 4-Bromofluorobenzene	94.0	80-120		%Rec	1	10/15/2018 12:39:57 PM	40985

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-005

Client Sample ID: West Wall (North Half)
Collection Date: 10/12/2018 1:31:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	63	30		mg/Kg	20	10/15/2018 1:34:12 PM	41001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/15/2018 12:04:33 PM	40997
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/15/2018 12:04:33 PM	40997
Surr: DNOP	93.4	50.6-138		%Rec	1	10/15/2018 12:04:33 PM	40997
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/15/2018 1:03:26 PM	40985
Surr: BFB	89.1	15-316		%Rec	1	10/15/2018 1:03:26 PM	40985
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	10/15/2018 1:03:26 PM	40985
Toluene	ND	0.039		mg/Kg	1	10/15/2018 1:03:26 PM	40985
Ethylbenzene	ND	0.039		mg/Kg	1	10/15/2018 1:03:26 PM	40985
Xylenes, Total	ND	0.078		mg/Kg	1	10/15/2018 1:03:26 PM	40985
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	10/15/2018 1:03:26 PM	40985

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #210
Lab ID: 1810786-006
Matrix: MEOH (SOIL)
Client Sample ID: South Wall
Collection Date: 10/12/2018 1:24:00 PM
Received Date: 10/13/2018 10:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	240	30		mg/Kg	20	10/15/2018 1:46:36 PM	41001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/15/2018 12:26:35 PM	40997
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/15/2018 12:26:35 PM	40997
Surr: DNOP	96.5	50.6-138		%Rec	1	10/15/2018 12:26:35 PM	40997
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/15/2018 1:26:52 PM	40985
Surr: BFB	86.7	15-316		%Rec	1	10/15/2018 1:26:52 PM	40985
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	10/15/2018 1:26:52 PM	40985
Toluene	ND	0.040		mg/Kg	1	10/15/2018 1:26:52 PM	40985
Ethylbenzene	ND	0.040		mg/Kg	1	10/15/2018 1:26:52 PM	40985
Xylenes, Total	ND	0.079		mg/Kg	1	10/15/2018 1:26:52 PM	40985
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	10/15/2018 1:26:52 PM	40985

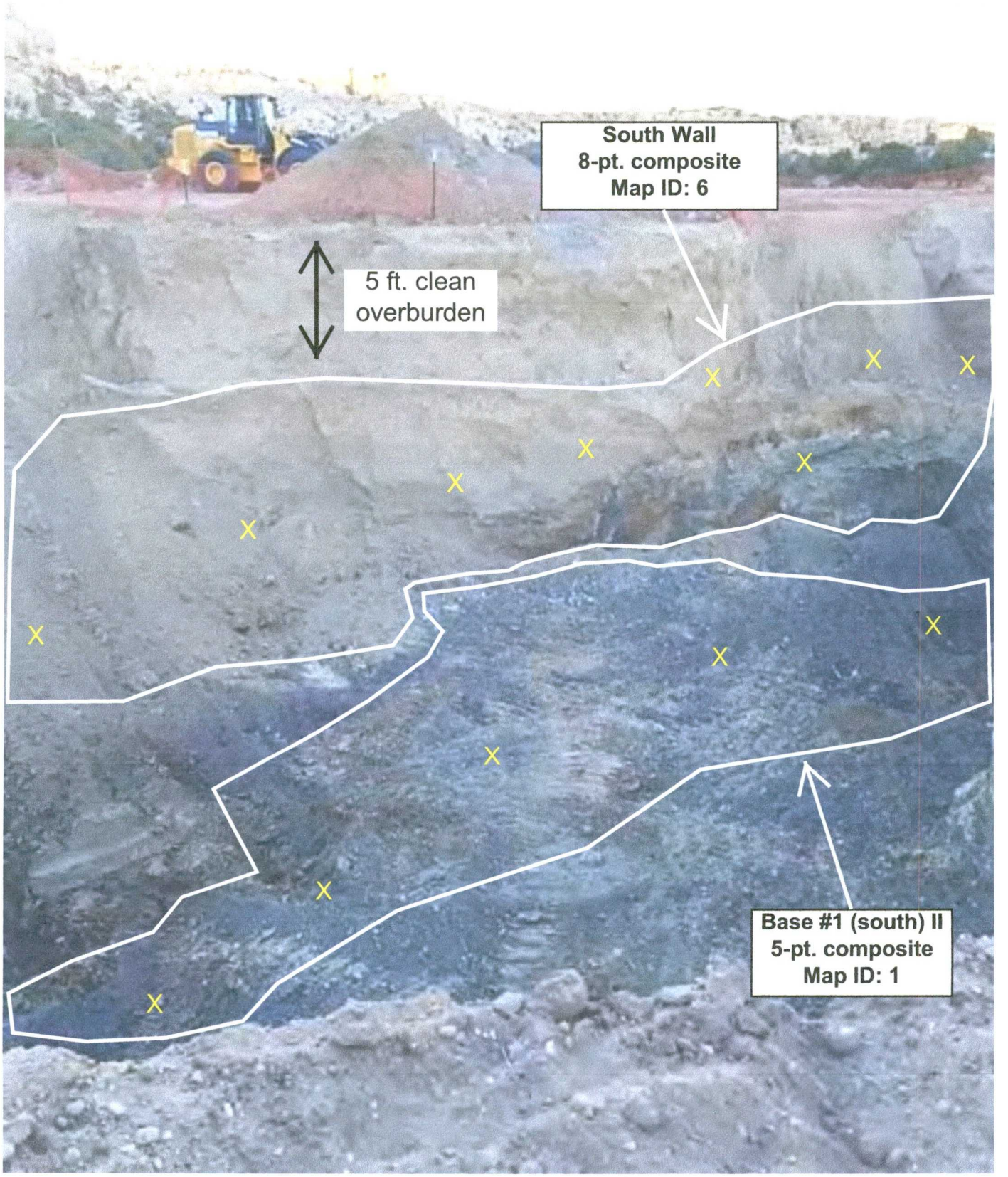
Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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
PQL	Practical Quanitative Limit
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


GCU 210
Oct. 12, 2018
Sampling Composite Points
West Wall (north half)
5-pt. composite
Map ID: 5
North Wall (west half)
5-pt. composite
Map ID: 4
5 ft. clean
overburden
Base #4 (north)
4-pt. composite
Map ID: 2
Base #5 (northwest)
4-pt. composite
Map ID: 3

GCU 210
Oct. 12, 2018
Sampling Composite Points



LABORATORY

CHAIN-OF-CUSTODY

RECORDS

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush SAME DAY

Project Name: GCU # 210

Project #:

Project Manager: ERIN GARIFALOS

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4

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

Analysis Request

Date	Time	Matrix	Sample Request ID	~~Container~~ 06/26/18 Type and #	Preservative Type	HEAL No.	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
6/25/18	1330	SOIL	5PC - TB @ 4' (95)	4 oz. - 1	Cool	1806F19-001	✓		✓									✓			✓	

Date: 6/25/18 Time: 1618 Relinquished by: Received by: Date Time 6/25/18 1618

Date: 6/25/18 Time: 1814 Relinquished by: Received by: Date Time 06/26/18 0700

Remarks: BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE;
CONTACT: ERIN GARIFALOS / VANCE HIXON
VID: VHIXONEVB2
Reference # P - 999

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

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush SAME DAY

Project Name: GCU # 210

Project #:

Project Manager: ERIN GARIFALOS

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No NV

Sample Temperature: 1.4

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1806F18	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	# pt. composite sample	Air Bubbles (Y or N)
6/25/18	1335	SOIL	GRAB @ 8' (95)	4oz-1	Cool	-001	✓		✓									✓		✓		

Date: 6/25/18 Time: 1618 Relinquished by: [signature] Received by: [signature] Date: 6/25/18 Time: 1618

Date: 6/25/18 Time: 1804 Relinquished by: [signature] Received by: [signature] Date: 06/26/18 Time: 0700

Remarks: BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE:
CONTACT: ERIN GARIFALOS / VANCE HIXON
VID: VHIXONEVRM
Reference # P - 999

Chain-of-Custody 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)

Turn-Around Time:
☐ Standard ☒ Rush SAME DAY
Project Name: GCU 210
Project #:
Project Manager: SABRE BEEBE
Sampler: JEFF BLAGG
On Ice: ☑ Yes ☐ No
Sample Temperature: 5.3 (0.2) = 5.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1809496	BTEX + ~~MTBE + TMB~~'s (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
9/28/18	1321	SOIL	BASE 5-pt @ 11'	4 oz x 1	COOL	-001	X		X									X				
|	1312	|	WEST WALL 5-pt	|	|	-002	|		|									|				
|	1318	|	SOUTH WALL 5-pt	|	|	-003	|		|									|				
|	1325	|	EAST WALL 5-pt	|	|	-004	|		|									|				
|	1331	|	NORTH WALL 5-pt	|	|	-005	|		|									|				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/28/18	1708	JH Blagg	Christine Walters	9/28/18	1708
9/28/18	1852	Christine Walters	Victoria Gallan	09/29/18	10:05

Remarks: BILL BP
CONTACT: SABRE BEEBE

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

Chain-of-Custody Record

Client: 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)

Turn-Around Time:
☐ Standard ☒ Rush SAME DAY

Project Name: GCU 210

Project #:

Project Manager: STEVE MOSKAL

Sampler: JEFF BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: ~~3.1 (-0.1) 3.0 - 1.1~~ VVZ 10/10/18 22-(-0.1) 1.0 = 1.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1810554	BTEX + ~~MTBE~~ + ~~TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
10/9/2018	1400	SOIL	BASE #1 (SOUTH)	4 oz x 1	COOL	-001	X		X									X	
	1404		BASE #2 (MID)			-002													
	1515		BASE #3 (NORTH)			-003													
	1434		EAST WALL (SOUTH HALF)			-004													
	1440		EAST WALL (NORTH HALF)			-005													
	1445		NORTH WALL (EAST HALF)			-006													

Date	Time	Relinquished by	Received by	Date	Time
10/9/18	1724	Jeff Blagg	[signature]	10/9/18	1742
10/9/18	1947	[signature]	[signature] VVZ 10/10/18 8:00	10/10/18	8:00

Remarks: BILL BP
CONTACT: SABRE BEEBE

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

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush _____

Project Name:
GCU # 210

Project #:

Project Manager:
SABRE BEEBE or
STEVE MOSKAL

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No

Sample Temperature: 5.9-(-(F)0.2=5.7

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1810786	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	# pt. composite sample
10/12/18	1316	SOIL	BASE #1 (SOUTH) II	4oz - 1	COOL	-001												X			5
10/12/18	1352	SOIL	NORTH WALL (WEST HALF)	4oz.-1	Cool	-002	X		X									X			5
10/12/18	1337	SOIL	BASE #4 (NORTH)	4oz.-1	Cool	-003	X		X									X			4
10/12/18	1327	SOIL	BASE #5 (NORTHWEST)	4oz.-1	Cool	-004	X		X									X			4
10/12/18	1331	SOIL	WEST WALL (NORTH ½)	4oz.-1	Cool	-005	X		X									X			5
10/12/18	1324	SOIL	SOUTH WALL	4oz.-1	Cool	-006	X		X									X			8

Date	Time	Relinquished by:	Received by:	Date	Time
10/12/18	1615			10/12/18	1615
10/12/18	1834			10/13/18	10:20

Remarks: BILL DIRECTLY TO BP USING THE CONTACT INFORMATION BELOW.

CONTACT: SABRE BEEBE

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

LABORATORY

QUALITY

ASSURANCE /

QUALITY

CONTROL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806F19**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-38882**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **38882**	RunNo: **52249**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712958** Units: **mg/Kg**

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

Sample ID **LCS-38882**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **38882**	RunNo: **52249**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712959** 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.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	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#: **1806F19**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **LCS-38880**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38880**	RunNo: **52229**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1711417** 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	83.5	70	130			
Surr: DNOP	4.3		5.000		86.9	70	130			

Sample ID **MB-38880**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **38880**	RunNo: **52229**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1711418** 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
PQL	Practical Quanitative Limit	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#: **1806F19**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-38874**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712080** 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		86.8	15	316			

Sample ID **LCS-38874**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712081** 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	75.9	131			
Surr: BFB	1000		1000		104	15	316			

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
PQL	Practical Quanitative Limit	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#: **1806F19**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-38874**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712109** 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		100	80	120			

Sample ID **LCS-38874**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712110** 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	95.4	77.3	128			
Toluene	0.96	0.050	1.000	0	96.1	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.8	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1806F19 | RcptNo: 1

Received By: Anne Thorne 6/26/2018 7:00:00 AM

Completed By: Anne Thorne 6/26/2018 7:34:04 AM

Reviewed By: TO 6/26/18

Labeled by: 06/26/18

Chain of Custody

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

Log In

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

15. 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:			

16. Additional remarks:

17. **Cooler Information**

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806F18**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID	**MB-38882**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**38882**		RunNo:	**52249**				
Prep Date:	**6/26/2018**	Analysis Date:	**6/26/2018**		SeqNo:	**1712958**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-38882**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**38882**		RunNo:	**52249**				
Prep Date:	**6/26/2018**	Analysis Date:	**6/26/2018**		SeqNo:	**1712959**	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.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	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#: **1806F18**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **LCS-38880**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **38880**	RunNo: **52229**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1711417** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	42	10	50.00	0	83.5	70	130			
Surr: DNOP	4.3		5.000		86.9	70	130			

Sample ID **MB-38880**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **38880**	RunNo: **52229**
Prep Date: **6/26/2018**	Analysis Date: **6/26/2018**	SeqNo: **1711418** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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
PQL	Practical Quanitative Limit	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

H ll Environmental Analysis Laboratory, Inc.

WO#: **1806F18**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-38874**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712080** 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		86.8	15	316			

Sample ID **LCS-38874**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712081** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
G ine Range Organics (GRO)	28	5.0	25.00	0	111	75.9	131			
Surr: BFB	1000		1000		104	15	316			

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
PQL	Practical Quanitative Limit	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#: **1806F18**

27-Jun-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-38874**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712109** 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		100	80	120			

Sample ID **LCS-38874**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **38874**	RunNo: **52243**
Prep Date: **6/25/2018**	Analysis Date: **6/26/2018**	SeqNo: **1712110** 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	95.4	77.3	128			
Toluene	0.96	0.050	1.000	0	96.1	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.8	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1806F18 RcptNo: 1

Received By: Anne Thorne 6/26/2018 7:00:00 AM Anne Thorne

Completed By: Anne Thorne 6/26/2018 7:30:43 AM Anne Thorne

Reviewed By: JO 6/26/18

Labeled by: AT 06/26/18

Chain of Custody

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

Log In

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

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1809H96**

02-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID	**MB-40701**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40701**		RunNo:	**54535**					
Prep Date:	**10/1/2018**	Analysis Date:	**10/1/2018**		SeqNo:	**1809390**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								

Sample ID	**LCS-40701**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40701**		RunNo:	**54535**					
Prep Date:	**10/1/2018**	Analysis Date:	**10/1/2018**		SeqNo:	**1809391**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	98.3	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
PQL	Practical Quanitative Limit	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#: **1809H96**

02-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **LCS-40692**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **40692**			RunNo: **54542**					
Prep Date: **10/1/2018**	Analysis Date: **10/1/2018**			SeqNo: **1808036**		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	70	130			
Surr: DNOP	4.8		5.000		95.6	50.6	138			

Sample ID **MB-40692**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **40692**			RunNo: **54542**					
Prep Date: **10/1/2018**	Analysis Date: **10/1/2018**			SeqNo: **1808037**		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	50.6	138			

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
PQL	Practical Quanitative Limit	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#: **1809H96**

02-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G54538**	RunNo: **54538**
Prep Date:	Analysis Date: **10/1/2018**	SeqNo: **1808598** 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		97.3	15	316			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G54538**	RunNo: **54538**
Prep Date:	Analysis Date: **10/1/2018**	SeqNo: **1808599** 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	75.9	131			
Surr: BFB	1100		1000		110	15	316			

Sample ID **MB-40666**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **40666**	RunNo: **54538**
Prep Date: **9/28/2018**	Analysis Date: **10/1/2018**	SeqNo: **1808626** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.3	15	316			

Sample ID **LCS-40666**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **40666**	RunNo: **54538**
Prep Date: **9/28/2018**	Analysis Date: **10/1/2018**	SeqNo: **1808627** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	15	316			

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
PQL	Practical Quanitative Limit	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#: **1809H96**

02-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B54538**	RunNo: **54538**
Prep Date:	Analysis Date: **10/1/2018**	SeqNo: **1808634** 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	0.96		1.000		95.5	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B54538**	RunNo: **54538**
Prep Date:	Analysis Date: **10/1/2018**	SeqNo: **1808635** 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	91.4	77.3	128			
Toluene	0.94	0.050	1.000	0	94.3	79.2	125			
Ethylbenzene	0.92	0.050	1.000	0	92.1	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	93.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	80	120			

Sample ID **MB-40666**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **40666**	RunNo: **54538**
Prep Date: **9/28/2018**	Analysis Date: **10/1/2018**	SeqNo: **1808662** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.5	80	120			

Sample ID **LCS-40666**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **40666**	RunNo: **54538**
Prep Date: **9/28/2018**	Analysis Date: **10/1/2018**	SeqNo: **1808665** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1809H96** RcptNo: 1

Received By: **Victoria Zellar** **9/29/2018 10:05:00 AM** Victoria Zellar

Completed By: **Ashley Gallegos** **9/29/2018 10:34:38 AM**

Reviewed By: 10/01/18 labeled by: AG 10/01/18

Chain of Custody

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

Log In

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

15. 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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-40919**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **40919**	RunNo: **54772**
Prep Date: **10/10/2018**	Analysis Date: **10/10/2018**	SeqNo: **1819699** Units: **mg/Kg**

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

Sample ID **LCS-40919**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **40919**	RunNo: **54772**
Prep Date: **10/10/2018**	Analysis Date: **10/10/2018**	SeqNo: **1819700** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.6	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
PQL	Practical Quanitative Limit	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#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **LCS-40881** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **40881** RunNo: **54737**
Prep Date: **10/8/2018** Analysis Date: **10/9/2018** SeqNo: **1817245** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		112	50.6	138			

Sample ID **MB-40881** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **40881** RunNo: **54737**
Prep Date: **10/8/2018** Analysis Date: **10/9/2018** SeqNo: **1817246** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	50.6	138			

Sample ID **LCS-40918** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **40918** RunNo: **54737**
Prep Date: **10/10/2018** Analysis Date: **10/10/2018** SeqNo: **1818793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	46	10	50.00	0	92.3	70	130			
Surr: DNOP	4.8		5.000		96.6	50.6	138			

Sample ID **MB-40918** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **40918** RunNo: **54737**
Prep Date: **10/10/2018** Analysis Date: **10/10/2018** SeqNo: **1818794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	50.6	138			

Sample ID **1810554-006AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **North Wall (East Hal** Batch ID: **40918** RunNo: **54737**
Prep Date: **10/10/2018** Analysis Date: **10/10/2018** SeqNo: **1819058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.8	49.12	0	103	53.5	126			
Surr: DNOP	5.3		4.912		109	50.6	138			

Sample ID **1810554-006AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **North Wall (East Hal** Batch ID: **40918** RunNo: **54737**
Prep Date: **10/10/2018** Analysis Date: **10/10/2018** SeqNo: **1819059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	50	9.7	48.45	0	103	53.5	126	1.20	21.7	

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
- PQL Practical Quanitative Limit
- 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#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **1810554-006AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **North Wall (East Hal** Batch ID: **40918** RunNo: **54737**
Prep Date: **10/10/2018** Analysis Date: **10/10/2018** SeqNo: **1819059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		4.845		109	50.6	138	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
PQL	Practical Quanitative Limit	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#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **2.5UG GRO LCS**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **G54774**			RunNo: **54774**					
Prep Date:	Analysis Date: **10/10/2018**			SeqNo: **1819348**		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	75.9	131			
Surr: BFB	1100		1000		107	15	316			

Sample ID **LCS-40909**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **40909**			RunNo: **54774**					
Prep Date: **10/9/2018**	Analysis Date: **10/10/2018**			SeqNo: **1819349**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		105	15	316			

Sample ID **MB-40909**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **40909**			RunNo: **54774**					
Prep Date: **10/9/2018**	Analysis Date: **10/10/2018**			SeqNo: **1819350**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		89.8	15	316			

Sample ID **RB**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **G54774**			RunNo: **54774**					
Prep Date:	Analysis Date: **10/10/2018**			SeqNo: **1819353**		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	15	316			

Sample ID **1810554-001A MS**	SampType: **MS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **Base #1 (South)**	Batch ID: **G54774**			RunNo: **54774**					
Prep Date:	Analysis Date: **10/10/2018**			SeqNo: **1819423**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.3	21.42	0	98.7	77.8	128			
Surr: BFB	880		856.9		102	15	316			

Sample ID **1810554-001A MSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **Base #1 (South)**	Batch ID: **G54774**			RunNo: **54774**					
Prep Date:	Analysis Date: **10/10/2018**			SeqNo: **1819424**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.3	21.42	0	95.6	77.8	128	3.21	20	
Surr: BFB	860		856.9		100	15	316	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
- PQL Practical Quanitative Limit
- 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#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B54774**	RunNo: **54774**
Prep Date:	Analysis Date: **10/10/2018**	SeqNo: **1819438** 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	94.4	77.3	128			
Toluene	1.0	0.050	1.000	0	99.9	79.2	125			
Ethylbenzene	1.0	0.050	1.000	0	101	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	101	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **1810554-002A MS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Base #2 (Mid)**	Batch ID: **B54774**	RunNo: **54774**
Prep Date:	Analysis Date: **10/10/2018**	SeqNo: **1819467** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7576	0.01076	91.0	68.5	133			
Toluene	0.75	0.038	0.7576	0.007652	98.0	75	130			
Ethylbenzene	0.74	0.038	0.7576	0	98.2	79.4	128			
Xylenes, Total	2.2	0.076	2.273	0	98.3	77.3	131			
Surr: 4-Bromofluorobenzene	0.76		0.7576		101	80	120			

Sample ID **1810554-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Base #2 (Mid)**	Batch ID: **B54774**	RunNo: **54774**
Prep Date:	Analysis Date: **10/10/2018**	SeqNo: **1819468** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.019	0.7576	0.01076	89.4	68.5	133	1.68	20	
Toluene	0.73	0.038	0.7576	0.007652	95.7	75	130	2.35	20	
Ethylbenzene	0.73	0.038	0.7576	0	96.4	79.4	128	1.92	20	
Xylenes, Total	2.2	0.076	2.273	0	96.7	77.3	131	1.61	20	
Surr: 4-Bromofluorobenzene	0.76		0.7576		99.8	80	120	0	0	

Sample ID **LCS-40909**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **40909**	RunNo: **54774**
Prep Date: **10/9/2018**	Analysis Date: **10/10/2018**	SeqNo: **1819469** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	80	120			

Sample ID **MB-40909**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **40909**	RunNo: **54774**
Prep Date: **10/9/2018**	Analysis Date: **10/10/2018**	SeqNo: **1819470** 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
- PQL Practical Quanitative Limit
- 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#: **1810554**

11-Oct-18

Client: Blagg Engineering
Project: GCU 210

Sample ID **MB-40909**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **40909**	RunNo: **54774**
Prep Date: **10/9/2018**	Analysis Date: **10/10/2018**	SeqNo: **1819470** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		96.6	80	120			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B54774**	RunNo: **54774**
Prep Date:	Analysis Date: **10/10/2018**	SeqNo: **1819471** 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			

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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1810554 | RcptNo: 1

Received By: Victoria Zellar 10/10/2018 8:00:00 AM Victoria Zellar

Completed By: Erin Melendrez 10/10/2018 8:40:52 AM

Reviewed By: ~~AT~~ 10/10/18

LB: ENM 10/10/18

Chain of Custody

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

Log In

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

ENM 10/10/18

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1810786**

16-Oct-18

Client: Blagg Engineering
Project: GCU #210

Sample ID	**MB-41001**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**41001**		RunNo:	**54867**					
Prep Date:	**10/15/2018**	Analysis Date:	**10/15/2018**		SeqNo:	**1824301**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								

Sample ID	**LCS-41001**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**41001**		RunNo:	**54867**					
Prep Date:	**10/15/2018**	Analysis Date:	**10/15/2018**		SeqNo:	**1824302**	Units:	**mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.4	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
PQL	Practical Quanitative Limit	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#: **1810786**

16-Oct-18

Client: Blagg Engineering
Project: GCU #210

Sample ID **1810786-002AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **North Wall (West Ha**	Batch ID: **40997**			RunNo: **54866**					
Prep Date: **10/15/2018**	Analysis Date: **10/15/2018**			SeqNo: **1823532**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	85	9.6	48.22	29.28	116	53.5	126			
Surr: DNOP	4.5		4.822		94.3	50.6	138			

Sample ID **1810786-002AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **North Wall (West Ha**	Batch ID: **40997**			RunNo: **54866**					
Prep Date: **10/15/2018**	Analysis Date: **10/15/2018**			SeqNo: **1823533**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	83	9.7	48.50	29.28	110	53.5	126	3.07	21.7	
Surr: DNOP	4.6		4.850		94.4	50.6	138	0	0	

Sample ID **LCS-40997**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **40997**			RunNo: **54866**					
Prep Date: **10/15/2018**	Analysis Date: **10/15/2018**			SeqNo: **1823538**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	41	10	50.00	0	82.9	70	130			
Surr: DNOP	4.5		5.000		90.9	50.6	138			

Sample ID **MB-40997**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **40997**			RunNo: **54866**					
Prep Date: **10/15/2018**	Analysis Date: **10/15/2018**			SeqNo: **1823539**		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		92.0	50.6	138			

Sample ID **LCS-40976**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **40976**			RunNo: **54866**					
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**			SeqNo: **1824398**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.7	50.6	138			

Sample ID **MB-40976**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **40976**			RunNo: **54866**					
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**			SeqNo: **1824399**		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
- PQL Practical Quanitative Limit
- 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#: **1810786**

16-Oct-18

Client: Blagg Engineering
Project: GCU #210

Sample ID **MB-40976**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **40976**	RunNo: **54866**
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**	SeqNo: **1824399** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.2	50.6	138			

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
PQL	Practical Quanitative Limit	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#: **1810786**

16-Oct-18

Client: Blagg Engineering
Project: GCU #210

Sample ID **LCS-40985**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **40985**	RunNo: **54862**							
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**	SeqNo: **1823039**	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	89.4	75.9	131			
Surr: BFB	1000		1000		102	15	316			

Sample ID **MB-40985**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **40985**	RunNo: **54862**							
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**	SeqNo: **1823040**	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		87.3	15	316			

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
PQL	Practical Quanitative Limit	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#: **1810786**

16-Oct-18

Client: Blagg Engineering
Project: GCU #210

Sample ID **LCS-40985**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **40985**	RunNo: **54862**
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**	SeqNo: **1823043** 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	90.8	77.3	128			
Toluene	0.96	0.050	1.000	0	96.0	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	97.4	81.6	129			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

Sample ID **MB-40985**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **40985**	RunNo: **54862**
Prep Date: **10/12/2018**	Analysis Date: **10/15/2018**	SeqNo: **1823044** 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	0.94		1.000		93.6	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
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1810786 | RcptNo: 1

Received By: Isaiah Ortiz 10/13/2018 10:20:00 AM I O

Completed By: Isaiah Ortiz 10/15/2018 8:05:51 AM I O

Reviewed By: JAB 10/15/18

Labeled By: IO 10/15/18

Chain of Custody

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

Log In

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

IO 10/15/18

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

Adjusted?

Checked by:

Special Handling (if applicable)

15. 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: ____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Yes			