

FEB 18 2016

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

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.  
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or

Proposed Alternative Method Permit or Closure Plan Application

- Type of action: ☐ Below grade tank registration  
☐ Permit of a pit or proposed alternative method  
☒ Closure of a pit, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit/or registration  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

*Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request*

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.  
Operator: BP America Production Company OGRID #: 778  
Address: 200 Energy Court, Farmington, NM 87401  
Facility or well name: Valentine GC 1A  
API Number: 3004521881 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr D Section 32 Township 32N Range 10W County: San Juan  
Center of Proposed Design: Latitude 36.946056 Longitude -107.911940 NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.  
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
Temporary: ☐ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

3.  
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC Tank 1  
Volume: 21.0 bbl Type of fluid: Produced water  
Tank Construction material: Steel  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other Single walled/single bottom; no visible sidewalls  
Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

4.  
☐ **Alternative Method:**  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.



5.

**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify \_\_\_\_\_

6.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

**Please check a box if one or more of the following is requested, if not leave blank:**

- ☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

**Instructions:** *The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*

**General siting**

**Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells

☐ Yes ☐ No  
☐ NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (**Does not apply to below grade tanks**)

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine. (**Does not apply to below grade tanks**)

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area. (**Does not apply to below grade tanks**)

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain. (**Does not apply to below grade tanks**)

- FEMA map

☐ Yes ☐ No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No



<p>Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.</p> <p>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 100 feet of a wetland.</p> <p>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b><u>Temporary Pit Non-low chloride drilling fluid</u></b></p>	
<p>Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</p> <p>- Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>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, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;</p> <p>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 300 feet of a wetland.</p> <p>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b><u>Permanent Pit or Multi-Well Fluid Management Pit</u></b></p>	
<p>Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</p> <p>- Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</p> <p>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</p> <p>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Within 500 feet of a wetland.</p> <p>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

10.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design)    API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

11.

**Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ A List of wells with approved application for permit to drill associated with the pit.  
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design)    API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_



12. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13. **Proposed Closure:** 19.15.17.13 NMAC

**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit  
☐ Alternative
- Proposed Closure Method: ☐ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method

14. **Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15. **Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

- |   |   |
|---|---|
| Ground water is less than 25 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site                        | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance   |   |



adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

16.

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

18.

**OCD Approval:** ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

**OCD Representative Signature:** \_\_\_\_\_ **Approval Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **OCD Permit Number:** \_\_\_\_\_

19.

**Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☒ **Closure Completion Date:** 2/2/2016

20.

**Closure Method:**

- ☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
- ☐ If different from approved plan, please explain.

21.

**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☒ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☐ Re-vegetation Application Rates and Seeding Technique
- ☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.946056 Longitude -107.911940 NAD: ☐ 1927 ☒ 1983



**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Steve Moskal Title: Field Environmental Coordinator

Signature:  Date: February 15, 2016

e-mail address: steven.moskal@bp.com Telephone: (505) 326-9497



BP AMERICA PRODUCTION COMPANY  
SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

Valentine GC 001A

API No. 3004521881

Unit Letter D, Section 32, T32N, R10W

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on BP America Production Company (BP) well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, BP shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the New Mexico Oil Conservation Division (NMOCD) requires because of imminent danger to fresh water, public health, safety or the environment. If deviations from this plan are necessary, any specific changes will be included on form C-144 and approved by the NMOCD. BP shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofit with a BGT that complies with the BP NMOCD approved BGT design attached to the BP Design and Construction Plan. BP shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not previously retrofitted to comply with the BP NMOCD approved BGT Design attached to the BP Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. BP shall close the permitted BGT within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, D, or E of 19.15.17.17 NMAC.

**General Closure Plan**

1. BP shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.  
**Notice is attached.**
2. BP shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice shall include the operator's name, and the location to be closed by unit letter, section, township and range. If the BGT closure is associated with a particular well, then the notice shall also include the well's name, number and API number.  
**Notice was provided. NMOCD was on site during the removal of the BGT.**
3. BP shall remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. The facilities to be used are:
  - a. BP Crouch Mesa Landfarm, Permit NM-02-003 (Solids)
  - b. JFJ Landfarm, Permit NM-01-010(B) (Solids and Sludge)
  - c. Basin Disposal, Permit NM-01-0005 (Liquids)
  - d. Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
  - e. BP Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)



- f. BP Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
- g. BP Operated GCU 259 SWD, API 30-045-20006 (Liquids)
- h. BP Operated GCU 306 SWD, API 30-045-24286 (Liquids)
- i. BP Operated GCU 307 SWD, API 30-045-24248 (Liquids)
- j. BP Operated GCU 328 SWD, API 30-045-24735 (Liquids)
- k. BP Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

**All liquids and sludge in the BGT were removed and sent to one of the above NMOCD approved facilities for disposal.**

4. BP shall remove the BGT and dispose of it in a NMOCD approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD approves. If a liner is present and must be disposed of it will be cleaned by scraping any soils or other attached materials on the liner to a de minimus amount and disposed at a permitted solid waste facility, pursuant to Subparagraph (m) of Paragraph (1) of Subsection C of 19.15.35.8 NMAC. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.

**The BGT was transported for recycling.**

5. BP shall remove any on-site equipment associated with a BGT unless the equipment is required for well production.

**All equipment associated with the BGT has been removed.**

6. BP shall test the soils beneath the BGT to determine whether a release has occurred. BP shall collect at a minimum: a five (5) point composite sample and individual grab samples from any area that is wet, discolored or showing other evidence of a release and analyze for BTEX, TPH and chlorides. The testing methods for those constituents are as follows;

Constituents	Testing Method <b>21 bbl BGT</b>	Release Verification (mg/Kg)	Sample results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	<1.0
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	64.3
TPH	US EPA Method SW-846 418.1 or <u>8015</u> extended	100	<u>10,400</u>
Chlorides	US EPA Method 300.0 or 4500B	250 or background	<30

**Notes:** mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons. Other EPA methods that the division approves may be applied to all constituents listed. Chloride closure standards will be determined by which ever concentration level is greatest.

Soil under the BGT was sampled for TPH, BTEX and chloride. BTEX and chloride concentrations were below the stated limits. TPH exceeded the standard but was subsequently excavated and removed from the site. The field report and laboratory reports are attached.

7. BP shall notify the division District III office of its results on form C-141.



**C-141 is attached.**

8. If it is determined that a release has occurred, then BP will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.

**Sampling results significant release has occurred. The site was remediated through excavation.**

9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP shall backfill the excavation, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover, re-contour and re-vegetate the location. The location will be reclaimed if it is not within the active process area

**Sample results demonstrate TPH concentrations greater than the BGT closure standard. The site was remediated following the spill and release guidelines. The location has been backfilled and will be reclaimed during final reclamation activities.**

10. BP shall reclaim the BGT location and all areas associated with the BGT including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. BP shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

**The area has been backfilled and will be reclaimed once the well has been plugged and abandoned.**

11. The soil cover for closures where the BGT has been removed or remediated to the NMOCD's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and all practicable efforts will be made to prevent ponding of water and erosion of the cover material.

**The area has been backfilled and will be reclaimed once the well has been plugged and abandoned.**

12. BP shall seed the disturbed area the first growing season after closure of the BGT. Seeding will be accomplished by drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will be, at a minimum, 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation), consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

**The area has been backfilled and will be reclaimed once the well has been plugged and abandoned.**

13. BP shall seed, plant and re-seed pursuant to Paragraph (3) of Subsection I of 19.15.17.13 NMAC, until the location successfully achieves the required vegetative cover.



**The area has been backfilled and will be reclaimed once the well has been plugged and abandoned.**

14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, BP shall notify the NMOCD when it has seeded or planted and when it successfully achieves re-vegetation.

**BP will notify NMOCD when re-vegetation is successful.**

15. Within 60 days of closure completion, BP shall submit a closure report on NMOCD's form C-144, and will include the following;
  - a. proof of closure notification (surface owner and NMOCD)
  - b. sampling analytical reports; information required by 19.15.17 NMAC;
  - c. disposal facility name and permit number
  - d. details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
  - e. site reclamation, photo documentation.

**Closure report on C-144 form is included including photos of reclamation completion.**

16. BP shall certify that all information in the report and attachments is accurate, truthful, and compliant with all applicable closure requirements and conditions specified in the approved closure plan.

**Certification section of C-144 has been completed.**



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☒ Final Report

Name of Company: BP	Contact: Steve Moskal	
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497	
Facility Name: Valentine GC 1A	Facility Type: Natural gas well	
Surface Owner: Fee	Mineral Owner: Fee	API No. 3004521881

**LOCATION OF RELEASE**

Unit Letter D	Section 32	Township 32N	Range 10W	Feet from the 1,180	North/South Line North	Feet from the 795	East/West Line West	County: San Juan
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Latitude 36.946056 Longitude -107.911940

**NATURE OF RELEASE**


Type of Release: condensate/oil/water	Volume of Release: unknown	Volume Recovered: N/A
Source of Release: below grade tank - 21 bbl	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: January 26, 2016; 11:00 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Sampling of the soil beneath the BGT was done during removal. Soil analysis resulted for BTEX and chloride below standards. However, laboratory results for TPH via Method 8015 extended were 10,400 ppm. The area was excavated and contaminants removed from the site. Field reports and laboratory results are attached.

Describe Area Affected and Cleanup Action Taken.\* The impacts found surrounding and below the BGT were excavated and transported off site for landfarming. Approximately 95 cubic yards were removed from the site. Final laboratory analysis supported closure of the BGT location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Steve Moskal	Approved by Environmental Specialist:		
Title: Field Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: steven.moskal@bp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: February 15, 2016	Phone: 505-326-9497		

\* Attach Additional Sheets If Necessary





BP America Production Company  
200 Energy Court  
Farmington, NM 87401  
Phone: (505) 326-9200

January 20, 2016

State Land Office  
Brandon Foley  
PO Box 3170  
Farmington, NM 87402

**VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

Re: Notification of plans to close/remove a below grade tank  
Well Name: VALENTINE GC 001A  
API #: 3004521881

Dear Mr. Foley,

As part of the NM "Pit Rule": 19.15.17.13 Closure Requirements, Paragraph J. BP America Production Company (BP) is required to notify the surface owner of BP's plans to close/remove a below grade tank. BP wishes to inform you of our plans to close/remove the below grade tank on its well pad located on your surface. BP plans to commence this work on or about January 25, 2016. If there aren't any unforeseen problems, the work should be completed within 10 working days.

As a point of clarification, BP will be closing the below grade tank and either operating without one or replacing it with an above ground tank, the well site will continue to operate.

Unless you have questions about this notice, there is no need to respond to this letter. If you do have any questions or concerns, please contact me at (505)-326-9214.

Sincerely,

Charlie Davis

BP America Production Company



**Moskal, Steven**

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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Wednesday, January 20, 2016 12:51 PM  
**To:** Smith, Cory, EMNRD (Cory.Smith@state.nm.us); Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us)  
**Cc:** Moskal, Steven; 'blagg\_njv@yahoo.com'; jeffcblagg@aol.com  
**Subject:** RE: BP Pit Close Notification - VALENTINE GC 001A - RESCHEDULE

**BP America Production Company**  
200 Energy Court  
Farmington, NM 87401  
Phone: (505) 326-9200

SENT VIA E-MAIL TO: [CORY.SMITH@STATE.NM.US](mailto:CORY.SMITH@STATE.NM.US); [VANESSA.FIELDS@STATE.NM.US](mailto:VANESSA.FIELDS@STATE.NM.US)

January 20, 2016

New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**RE: Notice of Proposed Below-Grade Tank (BGT) Closure**

VALENTINE GAS COM 001A  
API 30-045-21881  
(D) Section 32 – T32N – R10W  
San Juan County, New Mexico

Dear Mr. Cory Smith and Mrs. Vanessa Fields:

In regards to the captioned subject and requirements of the NMOCD pit rule, this letter is notification that BP is planning to close a 21 bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around January 25, 2016.

Should you have any questions, please feel free to contact BP at our Farmington office.

Sincerely,

Steven Moskal



BP Field Environmental Coordinator

(505) 326-9497

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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Wednesday, December 16, 2015 3:34 PM  
**To:** Smith, Cory, EMNRD ([Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us))  
**Cc:** Moskal, Steven; 'blagg\_njv@yahoo.com'; [jeffcblagg@aol.com](mailto:jeffcblagg@aol.com)  
**Subject:** RE: BP Pit Close Notification - VALENTINE GC 001A

Work on this site has been postponed until a later date. I will let you know when it gets rescheduled.

Thank you.

Farrah

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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Thursday, December 10, 2015 8:22 AM  
**To:** Smith, Cory, EMNRD ([Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us))  
**Cc:** Moskal, Steven; 'blagg\_njv@yahoo.com'; [jeffcblagg@aol.com](mailto:jeffcblagg@aol.com)  
**Subject:** RE: BP Pit Close Notification - VALENTINE GC 001A

The BGT is now scheduled to be closed on this site on December 14, 2015.

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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Monday, November 30, 2015 2:42 PM  
**To:** Smith, Cory, EMNRD ([Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us))  
**Cc:** Moskal, Steven; 'blagg\_njv@yahoo.com'; [jeffcblagg@aol.com](mailto:jeffcblagg@aol.com)  
**Subject:** BP Pit Close Notification - VALENTINE GC 001A

I apologize. I had the incorrect site listed in the subject line. This notice is for the Valentine GC 001A.

Thank you.

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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Monday, November 30, 2015 2:29 PM  
**To:** Smith, Cory, EMNRD ([Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us))  
**Cc:** Moskal, Steven; 'blagg\_njv@yahoo.com'; [jeffcblagg@aol.com](mailto:jeffcblagg@aol.com)  
**Subject:** RE: BP Pit Close Notification - GCU 412

**BP America Production Company**  
200 Energy Court  
Farmington, NM 87401  
Phone: (505) 326-9200



November 30, 2015

New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**RE: Notice of Proposed Below-Grade Tank (BGT) Closure**

VALENTINE GAS COM 001A  
API 30-045-21881  
(D) Section 32 – T32N – R10W  
San Juan County, New Mexico

Dear Mr. Cory Smith:

In regards to the captioned subject and requirements of the NMOCD pit rule, this letter is notification that BP is planning to close a 21 bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around December 3, 2015.

Should you have any questions, please feel free to contact BP at our Farmington office.

Sincerely,

Steven Moskal  
BP Field Environmental Coordinator

(505) 326-9497



# BP AMERICA PRODUCTION COMPANY

## REMEDIATION OF IMPACTS ASSOCIATED WITH 21 BARREL BELOW-GRADE TANK

VALENTINE GC 001A

API #: 30-045-21881

Legal Description: (Unit Letter D, Sec. 32 -T32N -R10W, NMPM)

### CHRONOLOGICAL EVENT SUMMATION

1. **January 26, 2016:** Impacted soils discovered during confirmation sampling of 21 barrel below-grade tank. Preliminary investigation conducted with the advancement of four (4) test holes (see Field Report - page 1 of 3 for locations).
2. **January 29, 2016:** Remediation via excavation initiated. New Mexico Oil Conservation Division (NMOCD) representative from the District III Aztec office was present during the sample collection (see Field Report - page 2 of 3).
3. **February 02, 2016:** Subsequent sampling of expanded southwest sidewall conducted (see Field Report - page 3 of 3).
4. **February 10, 2016:** Final excavation measurements (in feet) approximately 15 x 15 x 9.5 average depth below grade. Total volume transported to JFJ Landfarm = 95 cubic yards (Form C-138 attached).







CLIENT: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>3004521881</b> TANK ID (if applicable): <b>B</b>
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<b>FIELD REPORT:</b> (circle one): BGT CONFIRMATION / <u>RELEASE INVESTIGATION</u> / OTHER:	PAGE #: <b>1</b> of <b>3</b>
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<b>SITE INFORMATION:</b>	SITE NAME: <b>VALENTINE GC # 1A</b>	DATE STARTED: <b>01/26/16</b>
QUAD/UNIT: <b>D</b> SEC: <b>32</b> TWP: <b>32N</b> RNG: <b>10W</b> PM: <b>NM</b> CNTY: <b>SJ</b> ST: <b>NM</b>	DATE FINISHED:	ENVIRONMENTAL SPECIALIST(S): <b>NJV</b>
1/4 - 1/4 FOOTAGE: <b>1,180'N / 795'W</b> <b>NW/NW</b> LEASE TYPE: <b>FEDERAL / STATE</b> <u>FEE</u> INDIAN	LEASE #: <b>-</b> PROD. FORMATION: <b>MV</b> CONTRACTOR: <b>STRIKE MBF - S. GLYNN</b>	

<b>REFERENCE POINT:</b>	WELL HEAD (W.H.) GPS COORD.: <b>36.94558 X 107.91226</b> GL ELEV.: <b>6,104'</b>	DISTANCE/BEARING FROM W.H.: <b>181', N28E</b>
1) <b>21 BGT (SW/SB)</b>	GPS COORD.: <b>36.946056 X 107.911940</b>	DISTANCE/BEARING FROM W.H.:
2)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:
3)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:
4)	GPS COORD.:	DISTANCE/BEARING FROM W.H.:

<b>SAMPLING DATA:</b>	CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <b>HALL</b>	OVM READING (ppm)
1) SAMPLE ID: <b>NE @ 4' (21)</b> SAMPLE DATE: <b>01/26/16</b> SAMPLE TIME: <b>1118</b> LAB ANALYSIS:	2) SAMPLE ID: <b>SE @ 4.5' (21)</b> SAMPLE DATE: <b>01/26/16</b> SAMPLE TIME: <b>1018</b> LAB ANALYSIS:	<b>1,207</b>
3) SAMPLE ID: <b>SW @ 5' (21)</b> SAMPLE DATE: <b>01/26/16</b> SAMPLE TIME: <b>1133</b> LAB ANALYSIS:	4) SAMPLE ID: <b>NW @ 4' (21)</b> SAMPLE DATE: <b>01/26/16</b> SAMPLE TIME: <b>1033</b> LAB ANALYSIS:	<b>998</b>
5) SAMPLE ID: <b>TB(A) @ 6' (21)</b> SAMPLE DATE: <b>01/26/16</b> SAMPLE TIME: <b>1045</b> LAB ANALYSIS:	<b>446</b>	
SIDEWALLS COMBINE FOR 4 PT. COMPOSITE <b>4PC - SW @ 4' - 5' (21)</b> <b>8015B/8021B/300.0 (CI)</b> <b>8015B/8021B/300.0 (CI)</b>		<b>501</b> <b>715</b>

<b>SOIL DESCRIPTION:</b>	SOIL TYPE: <u>SAND</u> <u>SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL / OTHER <b>BEDROCK (SANDSTONE)</b>
SOIL COLOR: <b>MOSTLY DARK YELLOWISH ORANGE</b>	PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
COHESION (ALL OTHERS): <u>NON COHESIVE</u> SLIGHTLY COHESIVE / COHESIVE / <u>HIGHLY COHESIVE</u>	DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
CONSISTENCY (NON COHESIVE SOILS): <u>LOOSE</u> <u>FIRM</u> DENSE / <u>VERY DENSE</u>	HC ODOR DETECTED: <u>YES</u> NO EXPLANATION - <b>DISCOLORED SOIL AND SOILS &amp; BEDROCK SANDSTONE IMMEDIATELY ADJACENT TO BGT.</b>
MOISTURE: DRY / <u>SLIGHTLY MOIST</u> MOIST / <u>WET</u> SATURATED / SUPER SATURATED	ANY AREAS DISPLAYING WETNESS: <u>YES</u> / NO EXPLANATION - <b>MOST LIKELY FROM SNOW MELT.</b>
SAMPLE TYPE: <u>GRAB</u> COMPOSITE - # OF PTS. <b>5</b>	DISCOLORATION/STAINING OBSERVED: <u>YES</u> NO EXPLANATION - <b>MEDIUM GRAY SOIL DIRECTLY BENEATH BGT APPROX. 0.5 - 1 FOOT THICKNESS.</b>

<b>SITE OBSERVATIONS:</b>	LOST INTEGRITY OF EQUIPMENT: YES <u>NO</u> EXPLANATION -
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> NO EXPLANATION: <b>DISCOLORED SOILS DIRECTLY BENEATH BGT.</b>	EQUIPMENT SET OVER RECLAIMED AREA: YES <u>NO</u> EXPLANATION -
OTHER: <b>APPEARS THAT SANDSTONE WAS CARVED OUT TO INSTALL 21 BGT. BEDROCK WAS OBSERVED AS SHALLOW AS 2 FEET (FT.) BELOW GRADE &lt; 10 FT. FROM BGT (NW QUADRANT). BEDROCK SANDSTONE DISCOLORATION PHASED INTO OLIVE GRAY TO A PALE YELLOWISH ORANGE.</b>	
SOIL IMPACT DIMENSION ESTIMATION: <b>10</b> ft. X <b>10</b> ft. X <b>1</b> ft.	IMPACTED SOIL ESTIMATION (Cubic Yards): <b>3 - 5 (±)</b>
DEPTH TO GROUNDWATER: <b>&gt;100'</b>	NEAREST WATER SOURCE: <b>&gt;1,000'</b> NEAREST SURFACE WATER: <b>&lt;1,000'</b> NMOC DTPH CLOSURE STD: <b>1,000</b> ppm

<b>SITE SKETCH</b>	BGT Located: off / <u>on</u> site PLOT PLAN circle: <u>attached</u>

<b>MISCELL. NOTES</b> WO: REF. #: <b>P-76</b> VID: <b>VHIXONEVB2</b> PJ #: Permit date(s): <b>06/02/10</b> OCD Appr. date(s): <b>10/19/15</b> Tank ID: <b>B</b> OVM = Organic Vapor Meter ppm = parts per million BGT Sidewalls Visible: <b>Y / (N)</b> BGT Sidewalls Visible: <b>Y / N</b> BGT Sidewalls Visible: <b>Y / N</b> Magnetic declination: <b>10° E</b>	OVM CALIB. READ. = <b>52.2</b> ppm RF=0.52 OVM CALIB. GAS = <b>100</b> ppm TIME: <b>11:10</b> (am/pm) DATE: <b>01/26/16</b>
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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: <b>GOOGLE EARTH IMAGERY DATE: 3/15/2015.</b> ONSITE: <b>01/26/16</b>
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CLIENT: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>3004521881</b> TANK ID (if applicable): <b>B</b>																														
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4) <b>3PC - NW @ 5' - 7'</b>	<b>01/29/16</b>	<b>1128</b>	<b>8015B/8021B</b>	<b>508</b>																												
5) <b>5PC - EB @ 9.5'</b>	<b>01/29/16</b>	<b>1135</b>	<b>8015B/8021B</b>	<b>33.4</b>																												
<b>SOIL DESCRIPTION:</b> SOIL TYPE: <u>SAND</u> <u>SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL / OTHER <b>BEDROCK (SANDSTONE)</b> SOIL COLOR: <b>MOSTLY DARK YELLOWISH ORANGE (BEDROCK)</b> PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / <u>HIGHLY COHESIVE</u> DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / <u>VERY DENSE</u> HC ODOR DETECTED: <u>YES</u> NO EXPLANATION - <b>OVM SAMPLES IN SE, SW, &amp; NW WALLS (all from very hard bedrock sandstone).</b> MOISTURE: <u>DRY</u> SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED ANY AREAS DISPLAYING WETNESS: YES <u>NO</u> EXPLANATION - _____ SAMPLE TYPE: GRAB / <u>COMPOSITE</u> # OF PTS. <b>3 &amp; 5</b> DISCOLORATION/STAINING OBSERVED: <u>YES</u> NO EXPLANATION - <b>GRAYISH GREEN IN BOTTOM HALF OF NW SIDEWALL &amp; APPROX. 2 FEET IN SE &amp; SW WALLS.</b>																																
<b>SITE OBSERVATIONS:</b> LOST INTEGRITY OF EQUIPMENT: YES <u>NO</u> EXPLANATION - _____ APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> NO EXPLANATION: <b>BASED ON DISCOLORATION &amp; OVM SAMPLE READINGS.</b> EQUIPMENT SET OVER RECLAIMED AREA: YES <u>NO</u> EXPLANATION - _____ OTHER: <b>ENTIRE EXCAVATION CONSISTED OF HARD TO VERY HARD, WELL CONSOLIDATED, WELL CEMENTED BEDROCK SANDSTONE. COLLECTED SAMPLES BY SCRAPING SIDEWALLS WITH GEOPICK HAMMER. EXCAVATION BOTTOM SCRAPED WITH BACKHOE (dark yellowish orange in color).</b> SOIL IMPACT DIMENSION ESTIMATION: <b>15</b> ft. X <b>13</b> ft. X <b>9.5</b> ft. IMPACTED SOIL ESTIMATION (Cubic Yards): <b>80</b> DEPTH TO GROUNDWATER: <b>&gt;100'</b> NEAREST WATER SOURCE: <b>&gt;1,000'</b> NEAREST SURFACE WATER: <b>&lt;1,000'</b> NMOCD TPH CLOSURE STD: <b>1,000</b> ppm																																
<b>SITE SKETCH</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p>BGT Located: off / <u>on</u> site</p> <p>EXCAVATION PERIMETER</p> <p>COMPRESSOR</p> <p>SEPARATOR</p> <p>TO W.H.</p> <p>PBGT T.B. ~ 5' B.G.</p> </div> <div style="width: 45%;"> <p>PLOT PLAN circle: <u>attached</u></p> <p>OVM CALIB. READ. = <b>51.4</b> ppm RF=0.52            OVM CALIB. GAS = <b>100</b> ppm            TIME: <b>11:46</b> am/pm DATE: <b>01/29/16</b></p> </div> </div>																																
<div style="display: flex;"> <div style="width: 65%;"> <p><b>NOTES:</b> 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; PBGT = 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.</p> <p>NOTES: <b>GOOGLE EARTH IMAGERY DATE: 3/15/2015.</b> ONSITE: <b>01/26/16, 01/28/16, 01/29/16</b></p> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p><b>MISCELL. NOTES</b></p> <p>WO: _____</p> <p>REF. #: _____</p> <p>VID: <b>VHIXONEVRM</b></p> <p>PJ #: _____</p> <p>Permit date(s): <b>06/02/10</b></p> <p>OCD Appr. date(s): <b>10/19/15</b></p> <p>Tank ID <b>B</b> OVM = Organic Vapor Meter ppm = parts per million</p> <p>BGT Sidewalls Visible: Y / <u>(N)</u></p> <p>BGT Sidewalls Visible: Y / N</p> <p>BGT Sidewalls Visible: Y / N</p> <p>Magnetic declination: <b>10° E</b></p> </div> </div>																																



CLIENT: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>3004521881</b> TANK ID (if applicable): <b>B</b>
<b>FIELD REPORT:</b> (circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / <u>OTHER:</u> <div style="text-align: center;"><b>REMEDATION</b></div>		PAGE #: <b>3</b> of <b>3</b>
<b>SITE INFORMATION:</b> SITE NAME: <b>VALENTINE GC #1A</b> QUAD/UNIT: <b>D</b> SEC: <b>32</b> TWP: <b>32N</b> RNG: <b>10W</b> PM: <b>NM</b> CNTY: <b>SJ</b> ST: <b>NM</b> 1/4 - 1/4 FOOTAGE: <b>1,180'N / 795'W</b> <b>NW/NW</b> LEASE TYPE: <u>FEDERAL</u> <u>STATE</u> <u>FEE</u> <u>INDIAN</u> LEASE #: <b>-</b> PROD. FORMATION: <b>MV</b> CONTRACTOR: <b>STRIKE MBF - C. PARKS</b>		DATE STARTED: <b>02/02/16</b> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST(S): <b>NJV</b>
<b>REFERENCE POINT:</b> WELL HEAD (W.H.) GPS COORD.: <b>36.94558 X 107.91226</b> GL ELEV.: <b>6,104'</b> 1) <b>21 BGT (SW/SB)</b> GPS COORD.: <b>36.946056 X 107.911940</b> DISTANCE/BEARING FROM W.H.: <b>181', N28E</b> 2) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____ 3) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____ 4) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____		
<b>SAMPLING DATA:</b> CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <b>HALL</b> 1) SAMPLE ID: <b>3PC - SW @ 5' - 7'</b> SAMPLE DATE: <b>02/02/16</b> SAMPLE TIME: <b>1300</b> LAB ANALYSIS: <b>8015B/8021B</b> OVM READING (ppm): <b>330</b> 2) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ 3) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ 4) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ 5) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		
<b>SOIL DESCRIPTION:</b> SOIL TYPE: <u>SAND</u> <u>SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL / OTHER <b>BEDROCK (SANDSTONE)</b> SOIL COLOR: <b>MOSTLY DARK YELLOWISH ORANGE (BEDROCK)</b> PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE <u>HIGHLY COHESIVE</u> DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD CONSISTENCY <u>NON COHESIVE SOILS</u> : LOOSE / FIRM / DENSE <u>VERY DENSE</u> HC ODOR DETECTED: <u>YES</u> NO EXPLANATION - <b>OVM SAMPLE (from very hard bedrock (sandstone)).</b> MOISTURE: <u>DRY</u> SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED SAMPLE TYPE: GRAB <u>COMPOSITE</u> # OF PTS. <b>3</b> ANY AREAS DISPLAYING WETNESS: YES <u>NO</u> EXPLANATION - _____ DISCOLORATION/STAINING OBSERVED: <u>YES</u> NO EXPLANATION - <b>GRAYISH GREEN IN BOTTOM 2 FEET IN SW WALLS.</b>		
<b>SITE OBSERVATIONS:</b> LOST INTEGRITY OF EQUIPMENT: YES <u>NO</u> EXPLANATION - _____ APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> NO EXPLANATION: <b>BASED ON DISCOLORATION &amp; OVM SAMPLE READING.</b> EQUIPMENT SET OVER RECLAIMED AREA: YES <u>NO</u> EXPLANATION - _____ OTHER: <b>ENTIRE EXCAVATION CONSISTED OF HARD TO VERY HARD, WELL CONSOLIDATED, WELL CEMENTED BEDROCK SANDSTONE. COLLECTED SAMPLE BY SCRAPING SIDEWALL WITH GEOPICK HAMMER &amp; SHOVEL.</b> SOIL IMPACT DIMENSION ESTIMATION: <b>15</b> ft. X <b>15</b> ft. X <b>9.5</b> ft. IMPACTED SOIL ESTIMATION (Cubic Yards): <b>88</b> DEPTH TO GROUNDWATER: <b>&gt;100'</b> NEAREST WATER SOURCE: <b>&gt;1,000'</b> NEAREST SURFACE WATER: <b>&lt;1,000'</b> NMOCD TPH CLOSURE STD: <b>1,000</b> ppm		
<b>SITE SKETCH</b> BGT Located: off <u>on</u> site PLOT PLAN circle: <u>attached</u> <p>INITIAL EXCAVATION PERIMETER: 13 ft. NW, 15 ft. NE, 15 ft. SE, 13 ft. SW</p> <p>EXPANDED EXCAVATION (15 ft. x 2 ft. x 7.5 ft.)</p> <p>COMPRESSOR</p> <p>SEPARATOR</p> <p>TO W.H.</p> <p>PBGTL T.B. ~ 5' B.G.</p> <p style="color: red; text-align: center;"><b>X - S.P.D.</b></p> <p>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.</p>		
OVM CALIB. READ. = <b>53.2</b> ppm RF = 0.52 OVM CALIB. GAS = <b>100</b> ppm TIME: <b>12:50</b> am/pm DATE: <b>02/02/16</b>		<b>MISCELL. NOTES</b> WO: _____ REF. #: _____ VID: <b>VHIXONEVRM</b> PJ #: _____ Permit date(s): <b>06/02/10</b> OCD Appr. date(s): <b>10/19/15</b> Tank ID: <b>B</b> OVM = Organic Vapor Meter ppm = parts per million BGT Sidewalls Visible: Y / <u>(N)</u> BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N Magnetic declination: <b>10° E</b>
NOTES: <b>GOOGLE EARTH IMAGERY DATE: 3/15/2015.</b> ONSITE: <b>01/26/16, 01/28/16, 01/29/16, 02/02/16</b>		



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1601990

Date Reported: 1/28/2016

**CLIENT:** Blagg Engineering**Client Sample ID:** TB @ 5' (21)**Project:** Valentine GC # 1A**Collection Date:** 1/26/2016 10:10:00 AM**Lab ID:** 1601990-001**Matrix:** MEOH (SOIL)**Received Date:** 1/27/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/27/2016 1:38:35 PM	23436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	4500	100		mg/Kg	10	1/27/2016 12:07:56 PM	23425
Motor Oil Range Organics (MRO)	4400	500		mg/Kg	10	1/27/2016 12:07:56 PM	23425
Surr: DNOP	0	70-130	S	%REC	10	1/27/2016 12:07:56 PM	23425
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	1500	31		mg/Kg	10	1/27/2016 10:46:13 AM	23405
Surr: BFB	631	66.2-112	S	%REC	10	1/27/2016 10:46:13 AM	23405
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.91	0.31		mg/Kg	10	1/27/2016 10:46:13 AM	23405
Toluene	29	0.31		mg/Kg	10	1/27/2016 10:46:13 AM	23405
Ethylbenzene	8.2	0.31		mg/Kg	10	1/27/2016 10:46:13 AM	23405
Xylenes, Total	180	3.1		mg/Kg	50	1/27/2016 11:33:26 AM	23405
Surr: 4-Bromofluorobenzene	168	80-120	S	%REC	10	1/27/2016 10:46:13 AM	23405

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601989

Date Reported: 1/28/2016

CLIENT: Blagg Engineering

Client Sample ID: 4PC - SW @ 4' - 5' (21)

Project: Valentine GC # 1A

Collection Date: 1/26/2016 12:00:00 PM

Lab ID: 1601989-002

Matrix: MEOH (SOIL)

Received Date: 1/27/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/27/2016 1:26:10 PM	23436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	3200	100		mg/Kg	10	1/27/2016 11:46:03 AM	23425
Surr: DNOP	0	70-130	S	%REC	10	1/27/2016 11:46:03 AM	23425
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	1700	210		mg/Kg	50	1/27/2016 10:22:44 AM	23405
Surr: BFB	251	66.2-112	S	%REC	50	1/27/2016 10:22:44 AM	23405
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	1.1		mg/Kg	50	1/27/2016 10:22:44 AM	23405
Toluene	4.1	2.1		mg/Kg	50	1/27/2016 10:22:44 AM	23405
Ethylbenzene	4.8	2.1		mg/Kg	50	1/27/2016 10:22:44 AM	23405
Xylenes, Total	89	4.2		mg/Kg	50	1/27/2016 10:22:44 AM	23405
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	50	1/27/2016 10:22:44 AM	23405

### Spill & Release Closure Standard Applied

Total TPH = 4,900 mg/Kg; closure standard = 1,000 mg/Kg  
Benzene = ND mg/Kg; closure standard = 10 mg/Kg  
Total BTEX = 97.9 mg/Kg; closure standard = 50 mg/Kg

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601989

Date Reported: 1/28/2016

CLIENT: Blagg Engineering

Client Sample ID: TB(A) @ 6' (21)

Project: Valentine GC # 1A

Collection Date: 1/26/2016 10:45:00 AM

Lab ID: 1601989-001

Matrix: MEOH (SOIL)

Received Date: 1/27/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	1/27/2016 1:13:46 PM	23436
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	3200	98		mg/Kg	10	1/27/2016 11:24:13 AM	23425
Surr: DNOP	0	70-130	S	%REC	10	1/27/2016 11:24:13 AM	23425
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	910	210		mg/Kg	50	1/27/2016 9:59:19 AM	23405
Surr: BFB	190	66.2-112	S	%REC	50	1/27/2016 9:59:19 AM	23405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		mg/Kg	50	1/27/2016 9:59:19 AM	23405
Toluene	ND	2.1		mg/Kg	50	1/27/2016 9:59:19 AM	23405
Ethylbenzene	4.3	2.1		mg/Kg	50	1/27/2016 9:59:19 AM	23405
Xylenes, Total	58	4.1		mg/Kg	50	1/27/2016 9:59:19 AM	23405
Surr: 4-Bromofluorobenzene	117	80-120		%REC	50	1/27/2016 9:59:19 AM	23405

### Spill & Release Closure Standard Applied

Total TPH = 4,110 mg/Kg; closure standard = 1,000 mg/Kg

Benzene = ND mg/Kg; closure standard = 10 mg/Kg

Total BTEX = 62.3 mg/Kg; closure standard = 50 mg/Kg

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601B45

Date Reported: 2/2/2016

CLIENT: Blagg Engineering

Client Sample ID: 3PC-NE@5.5'-7.5'

Project: Valentine GC # 1A

Collection Date: 1/29/2016 11:15:00 AM

Lab ID: 1601B45-001

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	73	9.8		mg/Kg	1	2/1/2016 10:25:17 AM	23497
Motor Oil Range Organics (MRO)	59	49		mg/Kg	1	2/1/2016 10:25:17 AM	23497
Surr: DNOP	87.0	70-130		%Rec	1	2/1/2016 10:25:17 AM	23497
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	8.8	4.2		mg/Kg	1	2/1/2016 11:14:07 AM	A31828
Surr: BFB	160	66.2-112	S	%Rec	1	2/1/2016 11:14:07 AM	A31828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 11:14:07 AM	B31828
Toluene	ND	0.042		mg/Kg	1	2/1/2016 11:14:07 AM	B31828
Ethylbenzene	ND	0.042		mg/Kg	1	2/1/2016 11:14:07 AM	B31828
Xylenes, Total	0.36	0.084		mg/Kg	1	2/1/2016 11:14:07 AM	B31828
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	2/1/2016 11:14:07 AM	B31828

Total TPH = 140.8 mg/Kg;

Down gradient sidewall

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



## Analytical Report

Lab Order 1601B45

Date Reported: 2/2/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-SE@5.5'-7.5'

Project: Valentine GC # 1A

Collection Date: 1/29/2016 11:20:00 AM

Lab ID: 1601B45-002

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	590	9.8		mg/Kg	1	2/1/2016 10:53:09 AM	23497
Motor Oil Range Organics (MRO)	420	49		mg/Kg	1	2/1/2016 10:53:09 AM	23497
Surr: DNOP	96.6	70-130		%Rec	1	2/1/2016 10:53:09 AM	23497
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	110	4.0		mg/Kg	1	2/1/2016 11:38:46 AM	A31828
Surr: BFB	382	66.2-112	S	%Rec	1	2/1/2016 11:38:46 AM	A31828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	2/1/2016 11:38:46 AM	B31828
Toluene	ND	0.040		mg/Kg	1	2/1/2016 11:38:46 AM	B31828
Ethylbenzene	0.55	0.040		mg/Kg	1	2/1/2016 11:38:46 AM	B31828
Xylenes, Total	5.6	0.079		mg/Kg	1	2/1/2016 11:38:46 AM	B31828
Surr: 4-Bromofluorobenzene	168	80-120	S	%Rec	1	2/1/2016 11:38:46 AM	B31828

Total TPH = 1,120 mg/Kg

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1601B45

Date Reported: 2/2/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** 3PC-NW@5'-7'**Project:** Valentine GC # 1A**Collection Date:** 1/29/2016 11:28:00 AM**Lab ID:** 1601B45-004**Matrix:** MEOH (SOIL)**Received Date:** 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	360	9.6		mg/Kg	1	2/1/2016 11:48:31 AM	23497
Motor Oil Range Organics (MRO)	200	48		mg/Kg	1	2/1/2016 11:48:31 AM	23497
Surr: DNOP	90.6	70-130		%Rec	1	2/1/2016 11:48:31 AM	23497
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	280	43		mg/Kg	10	2/1/2016 1:41:41 PM	A31828
Surr: BFB	274	66.2-112	S	%Rec	10	2/1/2016 1:41:41 PM	A31828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.043		mg/Kg	1	2/1/2016 12:27:59 PM	B31828
Toluene	0.56	0.043		mg/Kg	1	2/1/2016 12:27:59 PM	B31828
Ethylbenzene	1.4	0.043		mg/Kg	1	2/1/2016 12:27:59 PM	B31828
Xylenes, Total	14	0.85		mg/Kg	10	2/1/2016 1:41:41 PM	B31828
Surr: 4-Bromofluorobenzene	299	80-120	S	%Rec	1	2/1/2016 12:27:59 PM	B31828

**Total TPH = 840 mg/Kg**

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

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



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601B45

Date Reported: 2/2/2016

CLIENT: Blagg Engineering

Client Sample ID: 3PC-SW@5'-7'

Project: Valentine GC # 1A

Collection Date: 1/29/2016 11:25:00 AM

Lab ID: 1601B45-003

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	1100	100		mg/Kg	10	2/1/2016 12:48:24 PM	23497
Motor Oil Range Organics (MRO)	900	510		mg/Kg	10	2/1/2016 12:48:24 PM	23497
Surr: DNOP	0	70-130	S	%Rec	10	2/1/2016 12:48:24 PM	23497
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	430	39		mg/Kg	10	2/1/2016 1:17:08 PM	A31828
Surr: BFB	425	66.2-112	S	%Rec	10	2/1/2016 1:17:08 PM	A31828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	2/1/2016 12:03:23 PM	B31828
Toluene	0.18	0.039		mg/Kg	1	2/1/2016 12:03:23 PM	B31828
Ethylbenzene	1.6	0.039		mg/Kg	1	2/1/2016 12:03:23 PM	B31828
Xylenes, Total	26	0.77		mg/Kg	10	2/1/2016 1:17:08 PM	B31828
Surr: 4-Bromofluorobenzene	473	80-120	S	%Rec	1	2/1/2016 12:03:23 PM	B31828

**Total TPH = 2,430 mg/Kg****Up gradient sidewall**

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1602067

Date Reported: 2/4/2016

**CLIENT:** Blagg Engineering**Client Sample ID:** 3PC-SW2 @ 5'-7'**Project:** VALENTINE GC #1A**Collection Date:** 2/2/2016 1:00:00 PM**Lab ID:** 1602067-001**Matrix:** SOIL**Received Date:** 2/3/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	320	10		mg/Kg	1	2/3/2016 9:56:36 AM	23551
Motor Oil Range Organics (MRO)	240	50		mg/Kg	1	2/3/2016 9:56:36 AM	23551
Surr: DNOP	106	70-130		%Rec	1	2/3/2016 9:56:36 AM	23551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	62	8.1		mg/Kg	2	2/3/2016 10:56:25 AM	23523
Surr: BFB	311	66.2-112	S	%Rec	2	2/3/2016 10:56:25 AM	23523
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.041		mg/Kg	2	2/3/2016 10:56:25 AM	23523
Toluene	ND	0.081		mg/Kg	2	2/3/2016 10:56:25 AM	23523
Ethylbenzene	0.13	0.081		mg/Kg	2	2/3/2016 10:56:25 AM	23523
Xylenes, Total	1.3	0.16		mg/Kg	2	2/3/2016 10:56:25 AM	23523
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	2	2/3/2016 10:56:25 AM	23523

**Total TPH = 622 mg/Kg****Up gradient sidewall**

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

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



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1601B45

Date Reported: 2/2/2016

CLIENT: Blagg Engineering

Client Sample ID: 5PC-EB@9.5'

Project: Valentine GC # 1A

Collection Date: 1/29/2016 11:35:00 AM

Lab ID: 1601B45-005

Matrix: MEOH (SOIL)

Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	130	9.5		mg/Kg	1	2/1/2016 12:20:50 PM	23497
Motor Oil Range Organics (MRO)	120	48		mg/Kg	1	2/1/2016 12:20:50 PM	23497
Surr: DNOP	84.8	70-130		%Rec	1	2/1/2016 12:20:50 PM	23497
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	19	4.0		mg/Kg	1	2/1/2016 12:52:35 PM	A31828
Surr: BFB	230	66.2-112	S	%Rec	1	2/1/2016 12:52:35 PM	A31828
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	2/1/2016 12:52:35 PM	B31828
Toluene	ND	0.040		mg/Kg	1	2/1/2016 12:52:35 PM	B31828
Ethylbenzene	0.096	0.040		mg/Kg	1	2/1/2016 12:52:35 PM	B31828
Xylenes, Total	0.99	0.081		mg/Kg	1	2/1/2016 12:52:35 PM	B31828
Surr: 4-Bromofluorobenzene	128	80-120	S	%Rec	1	2/1/2016 12:52:35 PM	B31828

Total TPH = 269 mg/Kg

Excavation Bottom

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
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



# Chain-of-Custody Record

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

Mailing Address: **P.O. BOX 87**

**BLOOMFIELD, NM 87413**

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

Mail or Fax#:

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

☒ Standard

Accreditation: ☐ Other

☒ NELAP

EDD (Type):

Turn-Around Time: **SAME DAY**

☐ Standard ☒ Rush

Project Name: **VALENTINE GC # 1A**

Project #: **977**

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: **1**

Container Type and #: **4 oz. - 1**

Preservative Type: **Cool**

HEAL No. **160990**

Date: **1/26/16**

Time: **1010**

Matrix: **SOIL**

Sample Request ID: **TB @ 5' (21)**

Relinquished by: **[Signature]**

Time: **1/26/16**

Relinquished by: **[Signature]**

Time: **1/26/16 1754**

Received by: **[Signature]**

Date: **1/26/16 1621**

Received by: **[Signature]**

Date: **1/27/16 0800**

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE (8021B)	<input checked="" type="checkbox"/>	BTEX + MTBE (8021B)	<input checked="" type="checkbox"/>
BTEX + MTBE (GRO / DRO / MRO)	<input checked="" type="checkbox"/>	TPH (Method 418.1)	<input type="checkbox"/>
EDB (Method 504.1)	<input type="checkbox"/>	PAH (8310 or 8270SIMS)	<input type="checkbox"/>
RCRA 8 Metals	<input type="checkbox"/>	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	<input type="checkbox"/>
8081 Pesticides / 8082 PCB's	<input type="checkbox"/>	8260B (VOA)	<input type="checkbox"/>
8270 (Semi-VOA)	<input checked="" type="checkbox"/>	Chloride (soil - 300.0 / water - 300.1)	<input type="checkbox"/>
Grab sample	<input checked="" type="checkbox"/>	5 pt. composite sample	<input type="checkbox"/>
Air Bubbles (Y or N)	<input type="checkbox"/>		<input type="checkbox"/>

Remarks:

**BILL DIRECTLY TO BP:**  
**Steve Moskal, 200 Energy Court, Farmington, NM 87401**

Reference #: **P-76** Paykey: **VHIXONEVB2**



Turn-Around Time: SAIME DAY

☐ Standard ☒ Rush

Project Name: \_\_\_\_\_

**BLAGG ENGR. / BP AMERICA**

Mailing Address: P.O. BOX 97

BLOOMFIELD, NM 87413

Phone #: (505) 632-1199

mail or Fax#

AVOC Package

Standard	Level 4 (Full Validation)
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)

accreditation:

☐ NELAP ☐ Other

J EDD (Type)

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

Matrix

Sample Request ID

1/26/16	1045	SOIL	TB(A) @ 6' (21)
---------	------	------	-----------------

soil

TB(A) @ 6' (21)

1/26/16	1200	SOIL	4PC-SW @ 4'-5'(21)
---------	------	------	--------------------

SOIL

4PC - SW @ 4' - 5' (21)

Time	Temp
------	------

Relinquished by:

and p

Rate	Time
------	------

Relinquished by:

Relinquished by:	
------------------	--

Received by:

Date	Time
------	------

Remarks:

**BILL DIRECTLY TO BP:**

Steve Moskal, 200 Energy Court, Farmington, NM 87401

Reference #: P-76 Pavkev: VHIXONFVB2

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 notified on the analytical report.











# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601990

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23436	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23436	RunNo:	31736					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	971237	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23436	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23436	RunNo:	31736					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	971238	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.5	90	110			

## Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601990

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23425	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23425	RunNo	31683					
Prep Date	1/27/2016	Analysis Date	1/27/2016	SeqNo	970283	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	LCS-23425	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	23425	RunNo	31683					
Prep Date	1/27/2016	Analysis Date	1/27/2016	SeqNo	970284	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.0	65.8	136			
Surr: DNOP	4.9		5.000		98.9	70	130			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601990

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23405	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	23405	RunNo	31708					
Prep Date	1/26/2016	Analysis Date	1/27/2016	SeqNo	970902	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	930		1000		93.2	66.2	112			

Sample ID	LCS-23405	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	23405	RunNo	31708					
Prep Date	1/26/2016	Analysis Date	1/27/2016	SeqNo	970903	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.9	79.6	122			
Surr: BFB	1000		1000		102	66.2	112			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601990

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23405	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	23405	RunNo:	31708					
Prep Date:	1/26/2016	Analysis Date:	1/27/2016	SeqNo:	970927	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-23405	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	23405	RunNo:	31708					
Prep Date:	1/26/2016	Analysis Date:	1/27/2016	SeqNo:	970928	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	80	120			S

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601989

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23436	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23436	RunNo:	31736					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	971237	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23436	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23436	RunNo:	31736					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	971238	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.5	90	110			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601989

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23425	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23425	RunNo:	31683					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	970283	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		107	70	130			

Sample ID	LCS-23425	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23425	RunNo:	31683					
Prep Date:	1/27/2016	Analysis Date:	1/27/2016	SeqNo:	970284	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.0	65.8	136			
Surr: DNOP	4.9		5.000		98.9	70	130			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601989

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23405	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	23405	RunNo	31708					
Prep Date	1/26/2016	Analysis Date	1/27/2016	SeqNo	970902	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	930		1000		93.2	66.2	112			

Sample ID	LCS-23405	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	23405	RunNo	31708					
Prep Date	1/26/2016	Analysis Date	1/27/2016	SeqNo	970903	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.9	79.6	122			
Surr: BFB	1000		1000		102	66.2	112			

## Qualifiers:

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

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601989

28-Jan-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23405		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23405		RunNo:	31708			
Prep Date:	1/26/2016		Analysis Date:	1/27/2016		SeqNo:	970927		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-23405		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23405		RunNo:	31708			
Prep Date:	1/26/2016		Analysis Date:	1/27/2016		SeqNo:	970928		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	80	120			S

## Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory  
3901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: ELAGG

Work Order Number: 1001989

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/27/2016 8:00:00 AM

Completed By: Lindsay Mangin

1/27/2016 8:12:52 AM

Reviewed By:

### Chain of Custody

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

Yes ☐

No ☐

Not Present ☒

Yes ☒

No ☐

Not Present ☐

Courier

### Log In

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

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☐

No ☒

NA ☐

Yes ☐

No ☐

No VOA Vials ☒

Yes ☐

No ☒

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Yes ☒

No ☐

Adjusted? \_\_\_\_\_

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B45

02-Feb-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	MB-23497	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23497	RunNo	31813					
Prep Date	2/1/2016	Analysis Date	2/1/2016	SeqNo	973617	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.6		10.00		76.4	70	130			

Sample ID	LCS-23497	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	23497	RunNo	31813					
Prep Date	2/1/2016	Analysis Date	2/1/2016	SeqNo	973618	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	83.4	65.8	136			
Surr: DNOP	3.8		5.000		76.6	70	130			

## Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B45

02-Feb-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	5ML RB	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	A31828	RunNo	31828					
Prep Date:		Analysis Date	2/1/2016	SeqNo	974181	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.5	66.2	112			

Sample ID	2.5UG GRO LCS	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	A31828	RunNo	31828					
Prep Date:		Analysis Date	2/1/2016	SeqNo	974182	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	79.6	122			
Surr: BFB	970		1000		97.4	66.2	112			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B45

02-Feb-16

Client: Blagg Engineering

Project: Valentine GC # 1A

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974187	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B31828	RunNo:	31828					
Prep Date:		Analysis Date:	2/1/2016	SeqNo:	974188	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

## Qualifiers:

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



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Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1601B45**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

**01/30/16**  
1/30/2016 9:15:00 AM

Completed By: **Lindsay Mangin**

1/30/2016 9:51:40 AM

Reviewed By:

**dam 1/30/16**

### Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

### Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602067

04-Feb-16

Client: Blagg Engineering  
Project: VALENTINE GC #1A

Sample ID	MB-23551	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS	Batch ID: 23551		RunNo: 31874						
Prep Date:	2/3/2016	Analysis Date: 2/3/2016		SeqNo: 975374		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID	LCS-23551	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 23551			RunNo: 31874					
Prep Date:	2/3/2016	Analysis Date: 2/3/2016			SeqNo: 975375		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.0	65.8	136			
Surr: DNOP	4.8		5.000		95.3	70	130			

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602067

04-Feb-16

Client: Blagg Engineering  
Project: VALENTINE GC #1A

Sample ID	MB-23523	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: 23523			RunNo: 31884					
Prep Date:	2/2/2016	Analysis Date: 2/3/2016			SeqNo: 975769		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.4	66.2	112			

Sample ID	LCS-23523	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID: 23523			RunNo: 31884					
Prep Date:	2/2/2016	Analysis Date: 2/3/2016			SeqNo: 975770		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.4	79.6	122			
Surr: BFB	990		1000		99.5	66.2	112			

## Qualifiers:

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602067

04-Feb-16

Client: Blagg Engineering  
Project: VALENTINE GC #1A

Sample ID	MB-23523	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975781	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-23523	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	23523	RunNo:	31884					
Prep Date:	2/2/2016	Analysis Date:	2/3/2016	SeqNo:	975782	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

## Qualifiers:

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



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Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1602067**

RcptNo: 1

Received by/date:

*AT 02/03/16*

Logged By: **Anne Thorne**

2/3/2016 7:00:00 AM

*Anne Thorne*

Completed By: **Anne Thorne**

2/3/2016

*Anne Thorne*

Reviewed By:

*AT*

*2/3/16*

### Chain of Custody

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

### Log In

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

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

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

17. Additional remarks:

### 18. Cooler Information

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-138  
Revised August 1, 2011

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

<b>1. Generator Name and Address:</b> BP America Production Co. 200 Energy Ct. Farmington, NM 87401	
<b>2. Originating Site:</b> Valentine GC 001A Paykey: VHIXONEVRM	
<b>3. Location of Material (Street Address, City, State or ULSTR):</b> QRT/QRT: NW/NW Unit: D Section: 32 T32N R10W	
<b>4. Source and Description of Waste:</b> Hydrocarbon impacted soils. Estimated Volume <u>60</u> yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) <u>53</u> yd <sup>3</sup> / bbls <i>210/116 - 12 cu 130/116 - 30 cu</i>	
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b> I, <u>Steve Moskal</u> , representative or authorized agent for <u>BP America Production Company</u> do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)	
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b> I, <u>Steve Moskal</u> , representative for <u>BP America Production Company</u> authorize IEI to complete the required testing/sign the Generator Waste Testing Certification. I, <u>IEI</u> , representative for <u>IEI</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.	
<b>5. Transporter:</b> Strike	

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Industrial Ecosystems Inc., JFJ Waste Management Facility (JFJ), Permit NM-01-0010B

Address of Facility: #49 CR 3150 Aztec, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Tamara Brany

TITLE: Clerk

DATE: 1-29-16

SIGNATURE: [Signature]

Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-1782

1/29/16