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

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

Form C-144 Revised June 6, 2013

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.

12190 Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application
Type of action:
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,
5-11627 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.
Operator: BP America Production Company OGRID #:778
Address:200 Energy Court, Farmington, NM 87401
Facility or well name:Gallegos Canyon Unit 218
API Number:3004511627 OCD Permit Number:4496
U/L or Qtr/QtrASection22Township28NRange12WCounty:San Juan
Center of Proposed Design: Latitude36.652716 Longitude108.092357 NAD: ☐1927 ☒ 1983
Surface Owner: ☐ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment RCUD SEP 5 '14
2.  Dil Cons. Div.  Dil Cons. Div.
Temporary: Drilling Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
☐ String-Reinforced
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D
3.  ☐ Below-grade tank: Subsection 1 of 19.15.17.11 NMAC Tank A
Volume:95.0bbl 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 _Double walled/double bottomed; side walls not visible
Liner type: Thicknessmil
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.

·	
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, institution or church)	hospital,
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 acceptance.	ntable source
material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	pinote source
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
<u>Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.</u> NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes 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. ( <b>Does not apply to below grade tanks</b> )	☐ Yes ☐ No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
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
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ 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	Yes No
from the ordinary high-water mark).	L Les   NO
- Topographic map; Visual inspection (certification) of the proposed site	
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

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Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
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.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
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).  - Topographic map; Visual inspection (certification) of the proposed site	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	L Tes L NO
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
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; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
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).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
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 NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
10. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist</u> : Subsection B of 19.15.17.9 N  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc 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 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. and 19.15.17.13 NMAC	
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
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 docattached.	cuments are
<ul> <li>□ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>□ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>□ A List of wells with approved application for permit to drill associated with the pit.</li> <li>□ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC</li> <li>□ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC</li> </ul>	.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:	
Treviously rapproved Design (action copy of design) The retained.	

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 attached	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 H₂S, 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	
<u>Proposed Closure:</u> 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 F 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	luid Management Pit
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be 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	
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 sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. I 19.15.17.10 NMAC for guidance.	
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
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).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ 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.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ 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  Within the area overlying a subsurface mine.	
Within the area overlying a subsurface mine.	☐ Yes ☐ No
- 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
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan 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.  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.  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 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	11 NMAC 15.17.11 NMAC
17.	
Operator Application Certification:  Thereby sortification formation submitted with this application is true accounts and accordance to the heat of any browning and helicities in the sortification.	-£
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and believe	et.
Name (Print): Title:	
Signature: Date:	
e-mail address: Telephone:	
18.	
18.  OCD Approval: Permit Application (including closure plan)  Clusure Plan (only)  OCD Conditions (see attachment)	
18.  OCD Approval: Permit Application (including closure plan) Cludure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature:  Approval Date: 9/19/	
18.  OCD Approval: Permit Application (including closure plan)  Clusure Plan (only)  OCD Conditions (see attachment)	
18.  OCD Approval: Permit Application (including closure plan) Cludure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature:  Approval Date: 9/19/	the closure report.
OCD Approval: Permit Application (including closure plan) Cluding Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature:  OCD Permit Number:  OCD Permit Number:  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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date: 11/8/2013_  20.	the closure report.
OCD Approval: Permit Application (including closure plan) Clature Plan (only) OCD Conditions (see attachment)  OCD Representative Signature: Approval Date: 9/19/  Title: OCD Permit Number:  OCD Permit Number: 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date: 11/8/2013_	the closure report.

Form C-144 Oil Conservation Division Page 5 of 6

22. Operator Closure Certification:	
	with this closure report is true, accurate and complete to the best of my knowledge and closure requirements and conditions specified in the approved closure plan.
Name (Print):Jeff Peace	Title: Area Environmental Advisor
Signature: Jeff Passe	Date: _September 4, 2014
e-mail address:peace.jeffrey@bp.com	Telephone:(505) 326-9479

#### BP AMERICA PRODUCTION COMPANY

SAN JUAN BASIN, NORTHWEST NEW MEXICO

#### BELOW-GRADE TANK CLOSURE PLAN

# Gallegos Canyon Unit 218 API No. 3004511627 Unit Letter A, Section 22, T28N, R12W

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 approve 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.
  - No notice was sent due to misunderstanding of BGT closure notice requirements at that time.
- 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.
  - No notice was sent due to misunderstanding of BGT closure notice requirements at that time.
- 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 to a storage area for sale and re-use.

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	Release Verification	Sample
	95 bbl BGT	(mg/Kg)	results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	ND
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	ND
TPH	US EPA Method SW-846 418.1	100	4,200
Chlorides	US EPA Method 300.0 or 4500B	250 or background	73

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 and BTEX and chloride levels were below the stated limits. TPH was 4,200 ppm by Method 418.1 and 2,300 ppm by Method 8015D. Sampling data is 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 indicate a minor non-reportable release occurred. Less than one cubic yard of impacted material was mixed with native soil and used to backfill the BGT cellar, which is on top of sandstone bedrock. Due to depth to groundwater and distance to surface waters the closure standard is 5,000 ppm TPH.
- 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 with in the active process area

The area under the BGT was backfilled with clean soil and will be reclaimed with the rest of the site since the well has been plugged and abandoned.

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 over the will be reclaimed as part of final reclamation since 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 over the BGT will be reclaimed as part of final reclamation since 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 over the BGT will be reclaimed as part of final reclamation since 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.

BP will seed the area as part of final reclamation since 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 revegetation.

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.
- 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

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rel	ease Notific	catio	n and Co	orrective A	ction	1			
						<b>OPERA</b>	ΓOR		Initial	al Report	$\boxtimes$	Final Repor
Name of Co						Contact: Jef						
		Court, Farmi		M 87401			No.: 505-326-94					
Facility Na	me: Galleg	gos Canyon U	Jnit 218			Facility Typ	e: Natural gas v	vell				
Surface Ow	ner: Triba	1		Mineral C	Owner:	Federal		-	API No	. 30045116	527	
				LOCA	ATIO	N OF RE	LEASE					
Unit Letter A	Section 22	Township 28N	Range 12W	Feet from the 830	North North	/South Line	Feet from the 865	East/V East	Vest Line	County: S	an Jua	n
		Latit	<b>ude_</b> _36	.652716		Longitud	<b>e</b> 108.092357_					
				NAT	TURE	OF REL	EASE					
Type of Rele							Release: unknow			Recovered: r		
		v grade tank –	95 bbl			unknown	Iour of Occurrenc	e:	Date and 12:30 PM		covery	v: 10/30/2013;
Was Immedi	ate Notice (		Yes [	No Not Re	equired	If YES, To	Whom?					
By Whom?						Date and F						
Was a Water	course Read		Yes 🗵	] No		If YES, Vo	olume Impacting t	he Wate	rcourse.			
If a Watercon	ırse was Im	pacted, Descr	ibe Fully.	<b>k</b>								
Describe Cau the BGT. So Analysis resu	il analysis r	esulted in BT.	dial Actio EX and ch	n Taken.* Sampli Iloride below stan	ng of th dards, b	ne soil beneath out TPH was 4	the BGT was don ,200 ppm by Met	ne durin hod 418	g removal (	to ensure no 00 ppm by N	soil ir Iethod	npacts from 8015D.
4,200 ppm T below grade. Impacted soi	PH by Meth Due to the (less than	nod 418.1 and sandstone become cubic yard	2,300 ppr drock, dep d) was mix	ten.* BGT was re in TPH by Methoc th to groundwater ted with native so has been plugged	d 8015D r and dis oil and u	<ol> <li>The BGT w stance to surfa sed to backfill</li> </ol>	as set in sandston	e, with oure stand	competent dard for thi	sandstone be s site is 5,00	edrock 0 ppm	at 5.5 feet TPH.
regulations a public health should their or or the environ	Il operators or the envi operations h nment. In a	are required to ronment. The lave failed to a	o report an acceptant adequately OCD accep	is true and comp ad/or file certain r ee of a C-141 repo investigate and r tance of a C-141	elease nort by the emediat	notifications and the NMOCD mate contaminati	nd perform correct arked as "Final Ro on that pose a thre	tive acti eport" d eat to gr	ons for rele oes not reli ound water	eases which leve the oper , surface wa	may e ator o ter, hu	ndanger f liability ıman health
	2 00 /	1					OIL CONS	SERV	ATION	DIVISIO	<u>N</u>	
Signature:	Jeff h	Osed .		<del></del>								
Printed Name	•					Approved by	Environmental S	pecialist	:			
Title: Area E	nvironment	al Advisor				Approval Dat	e:	I	Expiration 1	Date:		· · · · · · · · · · · · · · · · · · ·
E-mail Addre	ess: peace.jo	effrey@bp.cor	n			Conditions of	Approval:			Attached		
Date: Septer	nber 4, 201	4	Phor	ne: 505-326-9479								

<sup>\*</sup> Attach Additional Sheets If Necessary

CLIENT: BP	P.O. BOX 87, BL	GINEERING, IN OOMFIELD, NN ) 632-1199		API#:3004 TANK ID (if applicble):	4511627 A
FIELD REPORT:	(circle one): BGT CONFIRMATION / F	RELEASE INVESTIGATION / O	THER:	PAGE#:	1 of 1
SITE INFORMATION	I: SITE NAME: GCU #2'	18		DATE STARTED:	10/30/13
QUAD/UNIT: A SEC: 22 TWP:	28N RNG: 12W PM:	NM CNTY: SJ	ST: NM	DATE FINISHED:	
1/4 -1/4/FOOTAGE: 830'N / 865'E	<b>NE/NE</b> LEASE TYP	PE: FEDERAL / STATE /	FFF / INDIAN		
LEASE #: <b>SF078828</b>	PROD. FORMATION: DK COM	CROSSFIF NTRACTOR: MBF - T. P	RE ETERSON	ENVIRONMENTAL SPECIALIST(S):	NJV
REFERENCE POINT	: WELL HEAD (W.H.) GPS C	coord.: 36.6527	0 X 108.09288	GL ELE	v.: <b>5,724'</b>
1) 95 BGT (DW/DB)	GPS COORD.:36.	<del>39162</del> X <u>108.05547</u>	DISTANCE/BE	ARING FROM W.H.:	169', N88E
2)	GPS COORD.: <b>36.6</b>	52716 X 108.092357	DISTANCE/BE	ARING FROM W.H.:	
3)	GPS COORD.:	(correction)	DISTANCE/BE/	ARING FROM W.H.:	
4)	GPS COORD.:		DISTANCE/BE	ARING FROM W.H.:	
SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # OR	LAB USED: HAL			OVM READING
1) SAMPLE ID:5 PC-TB @ 5' (95	) SAMPLE DATE 10/30/13		<del>-</del>	R015R/8021R/30/	(mqq)
2) SAMPLE ID:	•				, ,
3) SAMPLE ID:					
4) SAMPLE ID:					
SOIL DESCRIPTION	SOIL TYPE: SAND / SILTY S	SAND SILT / SILTY CLAY / C	CLAY / GRAVEL OT	HER BEDROCK	SANDSTONE)
SOIL COLOR:	OLIVE GRAY	@ 5.5 FT. (LIGHT TO			
COHESION (ALL OTHERS): NON COHESIVE SLIGHTL' CONSISTENCY (NON COHESIVE SOILS):		PLASTICITY (CLAYS): NON PL	•		
MOISTURE: DRY SLIGHTLY MOIST / MOIST W		DENSITY (COHESIVE C			
SAMPLE TYPE: GRAB COMPOSITE #		BEDROCK SURFAC		ANATION - DENEA	III DOLA W
DISCOLORATION/STAINING OBSERVED	: YES NO EXPLANATION - LIGHT	T TO MEDIUM GRAY @ BE	DROCK SURFACE.		
ANY AREAS DISPLAYING WETNESS: YES / NO		TO NO. EVELANATION.	LOT FOOTH COT II	ITEODITY OF DOT	-
APPARENT EVIDENCE OF A RELEASE OF ADDITIONAL COMMENTS: GAS WELL!					
FROM SOIL BENEATH BGT AND ABO		OHED IT WAY BEDITOOK TO	EKI TIAKB, OCIM E	TENTI OCCECTED	OOIL OANN EL
SOIL IMPACT DIMENSION ESTIMATION:		ft. X <u>NA</u> ft.	-	IMATION (Cubic Yar	, <u></u> ,
	IEAREST WATER SOURCE: >1,000'	NEAREST SURFACE WATER:	<u>&gt;1,000'</u> NMOC	D TPH CLOSURE STD:	
<del></del>	RMER	PLOT PLAN circ	le: attached 0VM	CALIB, READ. = NA	ppm   RF = 0.52
	ARATOR		<b>★</b> own	CALIB. GAS = NA	ppm   RF = 0.52
ļ	LOC.	-			ate: <b>NA</b>
	DED.	PBGTL	' <b>"</b>	MISCELL.	NOTES
<b>←</b> TΟ	BERM (x x x)	← T.B. ~ 5'	,,		
P&A		B.G.		<u>/O:                                    </u>	10
MARKER		soil & be	drock with	K: ZFEIRKO	IS.IS
				<u>n. Zi Liixiv.</u> J#:	,000
					11/30/09
	FORMER			· · · · · · · · · · · · · · · · · · ·	03/01/11
	PROD. TANK		Tar	nk OVM = Organic	Vapor Meter
	LOC.		Ā	The second	
		Y - 9	S.P.D.	BGT Sidewalls Visik	ole: Y / N
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION	ON DEPRESSION; B.G. = BELOW GRADE; B = BELO	· -	N.H. = WELL HEAD;	BGT Sidewalls Visit	
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BEL	OW-GRADE TANK LOCATION; SPD = SAMPLE POI	NT DESIGNATION; R.W. = RETAINING	WALL; NA - NOT	lagnetic declination	on: <b>10°</b> E
	E WALL; DW - DOUBLE WALL; SB - SINGLE BOTTO F FARTH IMAGERY DATE: 06/10	40101	LL	•	

#### **Analytical Report**

Lab Order 1310E89

Date Reported: 11/8/2013

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Blagg Engineering

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

Project: GCU #218

**Collection Date:** 10/30/2013 12:30:00 PM

Lab ID: 1310E89-001

Matrix: SOIL

Received Date: 10/31/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGI	ORGANICS					Analyst	BCN
Diesel Range Organics (DRO)	2300	100		mg/Kg	10	11/6/2013 1:27:03 PM	10142
Surr: DNOP	0	66-131	S	%REC	10	11/6/2013 1:27:03 PM	10142
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	97		mg/Kg	20	11/4/2013 3:49:08 PM	10143
Surr: BFB	114	74.5-129		%REC	20	11/4/2013 3:49:08 PM	10143
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.48		mg/Kg	20	11/4/2013 3:49:08 PM	10143
Toluene	ND	0.97		mg/Kg	20	11/4/2013 3:49:08 PM	10143
Ethylbenzene	ND	0.97		mg/Kg	20	11/4/2013 3:49:08 PM	10143
Xylenes, Total	ND	1.9		mg/Kg	20	11/4/2013 3:49:08 PM	10143
Surr: 4-Bromofluorobenzene	110	80-120		%REC	20	11/4/2013 3:49:08 PM	10143
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	73	15		mg/Kg	10	11/4/2013 4:05:00 PM	10169
EPA METHOD 418.1: TPH						Analyst	JME
Petroleum Hydrocarbons, TR	4200	200		mg/Kg	10	11/5/2013	10126

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 1 of 6
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1310E89

08-Nov-13

Client:

Blagg Engineering

Project:

GCU #218

Sample ID MB-10169

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: PBS

Batch ID: 10169

PQL

RunNo: 14556

Prep Date: 11/4/2013

Analysis Date: 11/4/2013

SegNo: 417936

Units: mg/Kg

Result

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-10169

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 10169

RunNo: 14556

%REC

Prep Date: 11/4/2013 Analysis Date: 11/4/2013

SeqNo: 417938

Units: mg/Kg

%RPD

Result

SPK value SPK Ref Val

HighLimit

**RPDLimit** 

PQL

Page 2 of 6

Chloride

110

Qual

14

Analyte

90.1 1.5 15.00 0 90

#### Qualifiers:

S

Value exceeds Maximum Contaminant Level.

Spike Recovery outside accepted recovery limits

- Ė Value above quantitation range
- Analyte detected below quantitation limits 1
- RSD is greater than RSDlimit 0 R RPD outside accepted recovery limits

- Holding times for preparation or analysis exceeded Н Not Detected at the Reporting Limit
- Reporting Detection Limit
- Analyte detected in the associated Method Blank
- Sample pH greater than 2 for VOA and TOC only. P

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1310E89

08-Nov-13

Client:

Blagg Engineering

Project

GCH #218

Project:	GCU #21	8									
Sample ID	MB-10126	SampTy	ре: <b>М</b> Е	BLK	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	PBS	Batch	ID: <b>10</b>	126	F	RunNo: 1	14575				
Prep Date:	10/31/2013	Analysis Da	ite: 1	1/5/2013	. 8	SeqNo: 4	118782	Units: mg/F	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	ND	20								
Sample ID	LCS-10126	SampTy	pe: LC	s	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	LCSS	Batch	ID: <b>10</b>	126	F	RunNo: 1	14575				
Prep Date:	10/31/2013	Analysis Da	ite: 11	1/5/2013	S	SeqNo: 4	118783	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydi	rocarbons, TR	95	20	100.0	0	95.1	80	120			
Sample ID	LCSD-10126	SampTy	pe: <b>LC</b>	SD	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch	ID: <b>10</b>	126	F	tunNo: 1	14575				
Prep Date:	10/31/2013	Analysis Da	ite: <b>1</b> 1	1/5/2013	5	SeqNo: 4	118784	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydr	rocarbons, TR	96	20	100.0	0	96.4	80	120	1.36	20	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2 for VOA and TOC only. P
- Reporting Detection Limit

Page 3 of 6

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1310E89

08-Nov-13

Client:

Blagg Engineering

Project:

GCU #218

Sample ID LCS-10142	Sampī	ype: LC	S	TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: LCSS	Batch	n ID: <b>10</b>	142	7	RunNo: 14	1536				
Prep Date: 11/1/2013	Analysis D	)ate: 11	1/4/2013	SeqNo: 417961			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.0	77.1	128			
Surr: DNOP	4.5		5.000		90.7	66	131			
Sample ID MB-10142	SamnT	уре: МЕ	21.1/	Т						
	Gampi	) po. 1111	いして	res	tCode: El	A Method	8015D: Diese	el Range (	Organics	
Client ID: PBS	•	1D: <b>10</b>			tCode: Ef RunNo: 14		8015D: Dies	el Range (	Organics	
Client ID: <b>PBS</b> Prep Date: <b>11/1/2013</b>	•	n ID: <b>10</b>		F		<b>1</b> 536	8015D: Diese Units: mg/K	3	Organics	
	Batch	n ID: <b>10</b>	142 1/4/2013	F	RunNo: 14	<b>1</b> 536		3	Organics RPDLimit	Qual
Prep Date: 11/1/2013	Batch Analysis D	n ID: 10 Date: 1	142 1/4/2013	F	RunNo: 14 GeqNo: 4	1536 18362	Units: mg/k	g		Qual

#### Qualifiers:

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

Page 4 of 6

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1310E89

08-Nov-13

Client:

Blagg Engineering

Project:

GCU #218

Sample ID MB-10143	TestCode: EPA Method 8015D: Gasoline Range													
Client ID: PBS	Batc	h ID: <b>10</b>	143	F	RunNo: 1	4567								
Prep Date: 11/1/2013	Analysis [	Date: 1	1/4/2013	SeqNo: 418282			Units: mg/h							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GRO)	ND	5.0												
Surr: BFB	900	_	1000		89.7	74.5	129							
Sample ID LCS-10143	Samp	Гуре: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	е					
Client ID: LCSS	Batc	Batch ID: 10143 RunNo: 14567												
Prep Date: 11/1/2013	11/1/2013 Analysis Date: 11/4/2013 SeqNo: 418283		18283	Units: mg/k	(g									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.5	126							
Surr: BFB	970		1000		97.3	74.5	129							

#### Qualifiers:

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

Page 5 of 6

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1310E89

08-Nov-13

Client:

Blagg Engineering

Project:

GCU #218

	218															
Sample ID MB-10143	Samp1	ype: ME	BLK	. TestCode: EPA Method 8021B: Volatiles												
Client ID: PBS	Batcl	n ID: <b>10</b>	143	F	RunNo: 1	4567	•									
Prep Date: 11/1/2013	Analysis D	)ate: <b>1</b> 1	te: 11/4/2013 SeqNo: 418316		Units: mg/K	(g										
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		107	80	120									
Sample ID LCS-10143	s	TestCode: EPA Method 8021B: Volatiles														
Client ID: LCSS	Batch ID: 10143			F	4567											
Prep Date: 11/1/2013	11/1/2013 Analysis Date: 11/4/2013 SeqNo: 418318						Units: mg/K									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual						
Benzene	1.0	0.050	1.000	0	101	80	120									
Toluene	1.0	0.050	1.000	0	104	80	120			•						
Ethylbenzene	1.0	0.050	1.000	0	104	80	120									
Xylenes, Total	3.2	0.10	3.000	0	106	80	120									

#### Qualifiers:

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

Page 6 of 6



tiali Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1310E89 RcptNo: 1 Received by/date Logged By: **Ashley Gallegos** 10/31/2013 10:00:00 AM Completed By: Ashley Gallegos 10/31/2013 3:22:19 PM Reviewed By: Chain of Custody 1. Custody seals intact on sample bottles? Yes 🗌 No 🗌 Not Present 🗹 Yes 🗸 No 🗌 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 🗌 4. Was an attempt made to cool the samples? Yes 🗹 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 No l NA 🗌 No [ 6. Sample(s) in proper container(s)? Yes 🗹 Yes 🗹 No 🗆 7. Sufficient sample volume for indicated test(s)? No 🗆 8. Are samples (except VOA and ONG) properly preserved? Yes 🔽 No 🗹 NA 🗆 Yes 🗌 9. Was preservative added to bottles? Yes No  $\square$ No VOA Vials 10.VOA vials have zero headspace? Yes 🗌 No 🔽 11. Were any sample containers received broken? # of preserved bottles checked for pH: No 🗌 12. Does paperwork match bottle labels? Yes 🔽 (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? No 🔲 Yes 🔽 13. Are matrices correctly Identified on Chain of Custody? Yes 🛂 No 🗌 14. Is it clear what analyses were requested? No 🗌 Checked by: Yes 🗹 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes NA 🗹 No 🗆 16. Was client notified of all discrepancies with this order? Person Notified: Date: By Whom: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C | Condition | Seal Intact | Seal No Seal Date 2.6 Good

Chain-of-Custody Record						LLL HALL ENVIRONMENTAL															
Client:	Client: BLAGG ENGR. / BP AMERICA		/ BP AMERICA	☑ Standard ☐ Rush				23.0	_									R/			
			Project Name																		
Mailing Address: P.O. BOX 87 BLOOMFIELD, NM 87413		GCU # 218				www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109															
		Project #:				Tel. 505-345-3975 Fax 505-345-4107															
		†			Page .			) 	7J-J			773 '98			s(	* * * ***					
Phone #: (505) 632-1199 email or Fax#:		Project Manag	ier:		* * .	4 P. C	(Ta)		and i	وَّ مَا يُعِيرِ عِادٍ . في	ii.	*)				3 - 2 - 2	1 Post 1	3° :	Service Services		
				1			_		1					504	S <sub>1</sub> S			300.1)	l		
QA/QC Package:  Standard Level 4 (Full Validation)		NELSON VELEZ			<b>₹</b> (\$021B)	only	1			S)		Q \$	PCB's						ارم		
Accreditation:		Sampler: NELSON VELEZ ON			*	Gas	2	(1)	1)	NS.		O <sub>2,F</sub>	8082			/water			헽		
□ NELAP □ Other		Ontice: ne Yes □ No			1	PH	/ DRO	118.	504.	270	İ	N,sC	_		র	0.0	1		Sal		
□ EDD (T	ype)			Sample Temperature:			E	E+1	GR.	7 po	po	or 8	tals	N,	ide	ৰ	ا-۲٥	- 30		<u>o</u>	sit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNO. 1310E87	BTEX + MITE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0		Grab sample	5 pt. composite sample
10/30/13	1230	SOIL	5PC - TB @ 5' (95)	4 oz 1	Cool	-001	V		<b>v</b>	٧					-	<u> </u>		V	$\neg$	_	7
									Ť									Ħ	$\dashv$	$\dashv$	1
	- <del></del>								$\dashv$								$\vdash\vdash$	$\overline{}$	-	$\dashv$	
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	If necess	ary, <b>t</b> amples s	ubmitted to Hall Environmental may be s	subcontracted to other	accredited laboratorie	s. This serves as notice of	this p	ossibili	ty. An	y sub	-contra	acted	data v	ili be	clearly	/ notat	ed on f	the and	alvtica	l repor	t.



