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.

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.
Operator: BP America Production Company  Address:200 Energy Court, Farmington, NM 87401  Facility or well name:GALLEGOS CANYON UNIT 337  OGRID #:778  OIL CONS. DIV DIST. 3
Facility or well name: GALLEGOS CANYON UNIT 337  AUG 0 9 2017
API Number: 3004526136 OCD Permit Number:
Center of Proposed Design: Latitude         36.62906         Longitude         -108.07365         NAD: □1927 ⋈ 1983
Surface Owner: ⊠ Federal □ State □ Private □ Tribal Trust or Indian Allotment
Pit: Subsection F, G or J of 19.15.17.11 NMAC   Temporary:
3. Subsection I of 19.15.17.11 NMAC TANK A  Volume: 95 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 <u>Double wall/ Double bottom; no visible sidewalls</u>
Liner type: Thicknessmil

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.	
<u>Variances and Exceptions</u> : 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 acceptate are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable 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
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.	☐ Yes ☐ No ☐ NA
NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
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
<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 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

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	☐ Yes ☐ No
<ul> <li>application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	
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.  - 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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: 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 19.15.17.12 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	NMAC 15.17.9 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 doc 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. and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.10 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:	

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 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 <u>Instructions</u> : 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. F. 19.15.17.10 NMAC for guidance.	rce material are Please refer to
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 ☐ 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).  - 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	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No

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
<ul> <li>Within an unstable area.</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 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 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 19.15.17.13 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - 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 cannown 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	.11 NMAC .15.17.11 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 bel	ief.
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: OCD Permit Number:	1700)
2	
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 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.	t complete this

22.	
Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure repo belief. I also certify that the closure complies with all applicable closure requirement	
Name (Print): Steve Moskal	Title: Field Environmental Coordinator
Signature: Muse	Date:August 7, 2017
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

## GALLEGOS CANYON UNIT 337 API No. 3004526136 Unit Letter P, Section 26, 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.

  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 is attached.
- 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	Release Verification	Sample
	95 bbl BGT	(mg/Kg)	results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	< 0.016
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	< 0.064
TPH	US EPA Method SW-846 418.1 or 8015 extended	100	<48
Chlorides	US EPA Method 300.0 or 4500B	250 or background	1,100

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 near the BGT was sampled for TPH, BTEX and chloride. Chloride exceeded the BGT closure standard with all other concentrations below the stated limits. A record review has determined depth to groundwater is greater than 5 feet below ground surface. The GCU 265E has a piezometer with a depth of water of 40-41'. The elevation difference between the 337 and 265E are

## 5,907 and 5,869 respectively. 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 indicate a release had not occurred. Chloride exceeded the BGT closure standard with all other concentrations below the stated limits. There is no significant threat to groundwater, surface water or vegetation. Attached is a laboratory report and C-141.
- 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

  Sampling results indicate a release had not occurred. Chloride exceeded the BGT closure standard with all other concentrations below the stated limits. There is no significant threat to groundwater, surface water or vegetation. The location will be reclaimed once the well is 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 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 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 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

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.

Release Notificati	on and Corrective Action	on							
	<b>OPERATOR</b>	Initia	l Report 🛛	Final Report					
Name of Company: BP	Contact: Steve Moskal								
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497								
Facility Name: Gallegos Canyon Unit 337	Facility Type: Natural gas well								
Surface Owner: Federal Mineral Owner	er: Federal	API No.	. 3004526136						
LOCATI	ON OF RELEASE								
Unit Letter Section Township Range Feet from the P 26 28N 12W 965 Sou		st/West Line st	County: San Ju	an					
Latitude36.62906	<u>° Longitude −108.07365°</u>								
NATUR	E OF RELEASE								
Type of Release: produced water	Volume of Release: unknown		ecovered: N/A						
Source of Release: below grade tank – 95 bbl	Date and Hour of Occurrence:	Date and I	Hour of Discover	y: none					
Was Immediate Notice Given?	If YES, To Whom?								
☐ Yes ☐ No ☐ Not Requir	ed								
By Whom?	Date and Hour								
Was a Watercourse Reached?  ☐ Yes ☐ No	If YES, Volume Impacting the W	atercourse.							
If a Watercourse was Impacted, Describe Fully.*									
Describe Cause of Problem and Remedial Action Taken.* Sampling re standard with all other concentrations below the stated limits. There is				closure					
Describe Area Affected and Cleanup Action Taken.* Sampling results with all other concentrations below the stated limits. There is no significant requested.									
I hereby certify that the information given above is true and complete tregulations all operators are required to report and/or file certain releas public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remed or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	e notifications and perform corrective a the NMOCD marked as "Final Report liate contamination that pose a threat to	actions for rele does not relie ground water,	ases which may eve the operator of surface water, h	endanger of liability uman health					
Signature: Mus Mus	OIL CONSER	RVATION 1	DIVISION						
Printed Name: Steve Moskal Approved by Environmental Specialist:									
Title: Field Environmental Coordinator	Approval Date:	Expiration D	Date:						
E-mail Address: steven.moskal@bp.com	Conditions of Approval:								
Date: August 7, 2017 Phone: 505-326-9497									

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

## bp



BP America Production Company 200 Energy Court Farmington, NM 87401

May 16, 2017

The Navajo Nation PO Box 663 Window Rock, AZ 86515

#### VIA EMAIL

Re: Notification of plans to close/remove a below grade tank Well Name: GALLEGOS CANYON UNIT 337

To Who it May Concern,

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 May 19, 2017. 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.

If witnessing of the tank removal is required please contact me for a specific time (505)-326-9497.

Sincerely,

Steven Moskal

BP America Production Company

## bp



BP America Production Company 200 Energy Court Farmington, NM 87401

May 16, 2017

Federal Indian Minerals Office Attn: Christine Bitsoi 6251 College Blvd, Suite B Farmington, NM 87402

#### VIA EMAIL

Re: Notification of plans to close/remove a below grade tank Well Name: GALLEGOS CANYON UNIT 337 API #: 3004526136

Dear Mrs. Bitsoi,

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 May 19, 2017. 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.

If witnessing of the tank removal is required please contact me for a specific time (505)-326-9497.

Sincerely,

Steven Moskal

**BP** America Production Company

#### Moskal, Steven

From:

Beebe, Sabre

Sent:

Thursday, May 18, 2017 11:35 AM

To:

Fields, Vanessa, EMNRD; Moskal, Steven; Smith, Cory, EMNRD

Cc:

jeffcblagg@aol.com; blagg\_njv@yahoo.com

Subject:

RE: BP Pit Close Notification - GALLEGOS CANYON UNIT 337

FYI all due to scheduling conflicts we have had to move this from 8 am tomorrow to 12 o clock tomorrow. Sorry for any inconvenience.

#### Sabre Beebe

L48 Compliance Specialist – San Juan Basin Asset 970-375-7530 970-779-9398

This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.

From: Fields, Vanessa, EMNRD [mailto:Vanessa.Fields@state.nm.us]

**Sent:** Wednesday, May 17, 2017 7:32 AM **To:** Moskal, Steven; Smith, Cory, EMNRD

Cc: jeffcblagg@aol.com; blagg\_njv@yahoo.com; Beebe, Sabre

Subject: RE: BP Pit Close Notification - GALLEGOS CANYON UNIT 337

Good morning Steve,

After a review I find the BGT permit was entered into our internal database, though it is not available on line.

Please proceed with removing the BGT as requested.

Include this email in your closure packet please.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463

vanessa.fields@state.nm.us

From: Moskal, Steven [mailto:Steven.Moskal@bp.com]

Sent: Wednesday, May 17, 2017 7:14 AM

To: Smith, Cory, EMNRD < Cory. Smith@state.nm.us>; Fields, Vanessa, EMNRD < Vanessa. Fields@state.nm.us>

Cc: jeffcblagg@aol.com; blagg njv@yahoo.com; Beebe, Sabre <Sabre.Beebe@bp.com>

Subject: RE: BP Pit Close Notification - GALLEGOS CANYON UNIT 337

Cory and Vanessa,

The BGT permit was requested for approval of closure on 1/24/17. That same day, Karen indicated the permit was approved. However, the permit is not available online for viewing and I am wondering if it may have been filed incorrectly online. I have not received a response back from Karen.

Given the circumstances, I am requesting approval to remove this tank at 8:00 AM on Friday, 5/19/17. Please let me know if we can proceed.

Thank you,

#### Steve Moskal

BP Lower 48 – San Juan – Farmington Field Environmental Coordinator Office: (505) 326-9497 Cell: (505) 330-9179



This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.

From: Buckley, Farrah (CH2M HILL) Sent: Tuesday, May 16, 2017 11:16 AM

**To:** Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (<u>Vanessa.Fields@state.nm.us</u>) **Cc:** <u>jeffcblagg@aol.com</u>; <u>blagg\_njv@yahoo.com</u>; Moskal, Steven; Beebe, Sabre

Subject: BP Pit Close Notification - GALLEGOS CANYON UNIT 337

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

SENT VIA E-MAIL TO: CORY.SMITH@STATE.NM.US; VANESSA.FIELDS@STATE.NM.US

May 16, 2017

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

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

GALLEGOS CANYON UNIT 337 API 30-045-26136 (P) Section 26 – T28N – R12W 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 95bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around May 19, 2017.

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

Farrah Buckley
BGT Project Support
970-946-9199 -cell

This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.

CLIENT: BP	P.O. BOX 87, B	NGINEERING, IN BLOOMFIELD, NI		API #: 30045	_
	(50	05) 632-1199		(if applicble):	Α
FIELD REPORT:	(circle one): BGT CONFIRMATION	/ RELEASE INVESTIGATION / (	OTHER:	PAGE#: <b>1</b>	of <b>1</b>
SITE INFORMATION	I: SITE NAME: GCU #	337		DATE STARTED: 0	5/19/17
QUAD/UNIT: P SEC: 26 TWP:	28N RNG: 12W PM:	NM CNTY: SJ	ST: NM	DATE FINISHED:	
1/4 -1/4/FOOTAGE: 965'S / 675'I	E SE/SE LEASE	TYPE: FEDERAL STATE	/ FEE / INDIAN	ENVIRONMENTAL	
LEASE #: <b>SF078904</b>	PROD. FORMATION: PC C	STRIKE ONTRACTOR: MBF - R. I	POWELL	SPECIALIST(S):	NJV
REFERENCE POINT	: WELL HEAD (W.H.) GPS	36.6292	20 X 108.07383	GL ELEV.:	5,907'
1) 95 BGT (DW/DB)	GPS COORD.: 36	5.62906 X 108.07365	DISTANCE/BEA	RING FROM WH.: 63.5',	S34.5E
2)	GPS COORD.:		DISTANCE/BEA	RING FROM W.H.:	
3)	GPS COORD.:		DISTANCE/BEA	RING FROM W.H.:	
4)	GPS COORD.:		DISTANCE/BEA	RING FROM W.H.:	
SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # 0	OR LAB USED: HALL			OVM READING (ppm)
1) SAMPLE ID: 5PC - TB @ 5'	(95) SAMPLE DATE: 05/19	/17 SAMPLE TIME:1312	LAB ANALYSIS: 801	5B/8021B/300.0 (CI)	
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:		
SOIL DESCRIPTION	SOIL TYPE: SAND SILTY SAND	SILT / SILTY CLAY / CLAY / GRAVE	EL / OTHER		
SOIL COLOR: DARK YELLOV	VISH ORANGE	PLASTICITY (CLAYS): NON PLASTI		OHESIVE / MEDIUM PLASTIC / F	IGHLY PLASTIC
COHESION (ALL OTHERS): NON COHESIVE SLIGHTL					
CONSISTENCY (NON COHESIVE SOILS): LC MOISTURE: DRY/SLIGHTLY MOIST/MOIST/W		HC ODOR DETECTED: YES NO	EXPLANATION -		
SAMPLE TYPE: GRAB (COMPOSITE) #		ANY AREAS DISPLAYING WETNE	SS: YES NO EXPLAN	NATION -	
DISCOLORATION/STAINING OBSERVED: YES		'			
SITE OBSERVATION					
APPARENT EVIDENCE OF A RELEASE OBSERVE EQUIPMENT SET OVER RECLAIMED AREA:		ANATION:			
OTHER: GAS WELL RECENTLY PLUGGE		CD OR BLM REPS. NOT PRE	SENT TO WITNESS	CONFIRMATION SAMP	LING.
SOIL IMPACT DIMENSION ESTIMATION:	NA ft. X NA	ft. X NA ft.	EXCAVATION EST	TIMATION (Cubic Yards) :	NA
	IEAREST WATER SOURCE: >1,000		1 0001	D TPH CLOSURE STD:	100 ppm
SITE SKETCH	BGT Located: off on sit	e PLOT PLAN circ	cle: attached OVM	CALIB. READ. = NA	
	$\oplus$	12011241	A	CALIB. GAS = NA	_ppm   RF = 0.52
	P&A MARKER		N TIME		NA
			11	MISCELL. NO	TES
	BERM			o: <b>430078816</b>	
	*		_	FE #: X7-006Q9-	
		PBGTL		ID:	
COMPRESSO	DR XXX	T.B. ~ 5'		J #:	
JOHN NESSE		B.G.	Pe	ermit date(s): 06	/14/10
SEP	ARATOR				/24/17
	FENCI	Ε	Tar ID	ppm = parts per millio	on
			A		
			( - S.P.D.	BGT Sidewalls Visible: Y	-
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION T.B. = TANK BOTTOM; PBGTL = PREVIOUS BEL			TOTAL NA MOT	BGT Sidewalls Visible: Y	10°E
APPLICABLE OR NOT AVAILABLE; SW - SINGLE	E WALL; DW - DOUBLE WALL; SB - SINGLE BOT		N. T. C. L., T. C. T. C.	lagnetic declination:	IU E
NOTES: GOOGLE EARTH IMAGI	ERY DATE: 3/15/2015.	ONSITE: 05/19/	17		

#### **Analytical Report**

Lab Order 1705B24

Date Reported: 5/23/2017

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Blagg Engineering

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

GCU #337 Project:

Collection Date: 5/19/2017 1:12:00 PM

Lab ID: 1705B24-001 Matrix: SOIL

Received Date: 5/20/2017 11:15:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	LGT
Chloride	1100	30	mg/Kg	20	5/22/2017 10:31:35 AM	31886
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst:	RAA
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	5/22/2017 12:33:24 PM	R42963
Surr: BFB	92.3	70-130	%Rec	1	5/22/2017 12:33:24 PM	R42963
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	1			Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/22/2017 9:25:04 AM	31865
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/22/2017 9:25:04 AM	31865
Surr: DNOP	96.2	70-130	%Rec	1	5/22/2017 9:25:04 AM	31865
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst:	RAA
Benzene	ND	0.016	mg/Kg	1	5/22/2017 12:33:24 PM	SL42963
Toluene	ND	0.032	mg/Kg	1	5/22/2017 12:33:24 PM	SL42963
Ethylbenzene	ND	0.032	mg/Kg	1	5/22/2017 12:33:24 PM	SL42963
Xylenes, Total	ND	0.064	mg/Kg	1	5/22/2017 12:33:24 PM	SL42963
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	5/22/2017 12:33:24 PM	SL42963
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	5/22/2017 12:33:24 PM	SL42963
Surr: Dibromofluoromethane	119	70-130	%Rec	1	5/22/2017 12:33:24 PM	SL42963
Surr: Toluene-d8	108	70-130	%Rec	1	5/22/2017 12:33:24 PM	SL42963

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 5 j
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Ch	nain-c	of-Cus	stody Record	Tum-Around	Time:	SAME				Н	IAI		FN	VI	D	) NI	ME	NT	CAL	ı	
Client:	BLAG	G ENGR.	/ BP AMERICA	☐ Standard	Rush _	DAY	) [											ATC			
				Project Name		The state of the s			200							al.co		711	,,,,		
Mailing A	ddress:	P.O. BO	X 87		GCU # 33	37		40	01 L							, NM		10			*
			FIELD, NM 87413	Project #:			1			)5-34						5-410		3			
Phone #:		(505) 63							21. 30	J3-34	3-33		alys			_		F.		E.	
email or F	ax#:	(000) 00		Project Mana	ger:			N INC.									1				
QA/QC Pa	_		Level 4 (Full Validation)		NELSON V	ELEZ	(8021B)	(duo	/ MRO)			(S)	3	04,304	202		ter - 300.1)			d)	
Accreditat			, , , , , , , , , , , , , , , , , , , ,	Sampler:	NELSON VI	ELEZ n	N 20 €	(Gas	RO /	1	=	SIM		0000	700		/ wa			du	
□ NELAP		□ Other		On Ice	刘 Yes / /			TPH	0/0	118.	204	8270SIMS)	.		2	(A)	0.00			e sa	N
□ EDD (T	ype)				eminire i	7.2	4	3E +	(GR(	pol	po	or or	etals	2000	D D	. S	- Ji		e e	osit	30
Date	Time	Matrix	Sample Request ID	Type and #	Preservative Type	HEAL No.	BTEX +	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions (r,ci,rvO <sub>3</sub> ,	8260R (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water-		rab	5 pt. composite sample	Air Bubbles (Y or N)
SPAIN	1312	SOIL	5PC - TB @ 💍 ' (95)	4 oz 1	Cool	20			٧								٧		$\overline{}$	V	
							+				$\neg$	$\top$	$\top$	$\top$	$\top$	$\top$			$\top$	$\top$	
							1				$\neg$	$\top$	$\top$	$\top$	$\top$	1			$\top$	$\top$	$\neg$
							$\top$				$\dashv$	$\top$	$\top$	+	+	$\top$		$\Box$	+	+	$\neg$
							+	1			$\dashv$	+	+	+	+				$\top$	$\top$	$\dashv$
							+			$\vdash$	_	+	+	+	+	+		$\forall$	+	+	$\dashv$
							+	$\vdash$			+	+	+	+	+	+		$\vdash$	+	+	$\dashv$
							+	-	-		$\dashv$	+	+	+	+	+-	-	$\vdash$	+	+	$\dashv$
				1			+				$\dashv$	+	+	+	+	+	-	$\vdash$	+	+	$\dashv$
							+	-		$\vdash$	+	+	+	+	+-	+-			+	+	$\dashv$
			,	<u> </u>			+	-	_		$\dashv$	+	+	+	+	+		$\vdash$	+	+	$\dashv$
							+	-		$\vdash$	+	+	+	+	+	+-		$\vdash$	+	+	-
Date:	Time:	Relinquishe	ad Mr.	Received by:	h /-	Date Time	Ren	nark	5:	BILLE	IRECT	OTYL	RP US	NG T	IE COI	VTACT	MITH (	CORRES	PONE	NO.	VID
5/19/17	1650	7	lm VI	/	hu T	05/20/	1			& REF	ERENC	CE#W	HEN A	PPLIC	ABLE;	L			. 0110	1110	100
Date:	Time:	Relinquishe	ed by:	Received by:		Date Time			VID:	ZBE											
			mitted to Hall Environmental may be su	contracted to attend	accornilised laborated	This seems and	(1)-1-		FE #			06Q9			loort	andrete d	an tha	anal di	1		

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1705B24

23-May-17

Client:

Blagg Engineering

Project:

GCU #337

Sample ID MB-31886

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 31886

RunNo: 42957

Prep Date:

Sample ID LCS-31886

5/22/2017

Analysis Date: 5/22/2017

SeqNo: 1352553

Units: mg/Kg

Analyte

Result

SPK value SPK Ref Val %REC PQL

LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

ND

1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

RunNo: 42957

Client ID: Prep Date:

LCSS 5/22/2017 Batch ID: 31886

Analysis Date: 5/22/2017

SeqNo: 1352554

Units: mg/Kg

%RPD **RPDLimit** 

Qual

Analyte

Result

PQL SPK value SPK Ref Val %REC

15.00

95.5

HighLimit

Chloride

14

1.5

#### Qualifiers:

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

Value above quantitation range

Page 2 of 5

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1705B24

23-May-17

Client:

Blagg Engineering

**Project:** 

GCU #337

Sample ID LCS-31865	SampTy	pe: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 31865 RunNo: 42945									
Prep Date: 5/22/2017	Analysis Da	ite: 5/	22/2017	7 SeqNo: 1351371 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.5	73.2	114			
Surr: DNOP	4.8		5.000		96.8	70	130			

Sample ID MB-31865	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 318	865	F	RunNo: 4	2945				
Prep Date: 5/22/2017	Analysis Da	ate: 5/	22/2017	S	SeqNo: 1	351372	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		97.8	70	130			

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 3 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1705B24

23-May-17

Client:

Blagg Engineering

Project:

GCU #337

		<del></del>	<del></del>							
Sample ID 100ng lcs2	Samp	Type: LC	s	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: LCSS	Batch ID: SL42963			RunNo: 42963						
Prep Date:	Analysis [	Date: <b>5/</b>	22/2017	SeqNo: 1351926		Units: mg/h	<b>(</b> g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	70	130			
Toluene	1.0	0.050	1.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr. Toluene-d8	0.47		0.5000		93.5	70	130			
Sample ID rb	SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: PBS	Batc	h ID: SL	42963	RunNo: 42963						
Prep Date:	Analysis D	)ate: 5/	22/2017	S	SeqNo: 1	351933	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.5000		111	70	130			
Surr: Dibromofluoromethane	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.49		0.5000		98.1	70	130			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

Page 4 of 5

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1705B24

23-May-17

Client:

Blagg Engineering

Project:

GCU #337

Sample ID	rb			
Client ID:	PBS			

SampType: MBLK

TestCode: EPA Method 8015D Mod: Gasoline Range

Prep Date:

Batch ID: R42963 Analysis Date: 5/22/2017

PQL

5.0

RunNo: 42963 SeqNo: 1351944

Units: mg/Kg

Analyte

Result ND

SPK value SPK Ref Val

%REC LowLimit HighLimit %RPD

**RPDLimit** 

Qual

Gasoline Range Organics (GRO) Surr: BFB

500

500.0

99.5

70

130

Sample ID 2.5ug gro lcs

SampType: LCS

RunNo: 42963

TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Prep Date:

Batch ID: R42963

SeqNo: 1352515

Units: mg/Kg

Analyte

Analysis Date: 5/22/2017

SPK value SPK Ref Val

%REC LowLimit

**HighLimit** 70

%RPD

Qual

Gasoline Range Organics (GRO) Surr: BFB

25 500

Result

25.00 500.0

100

70

130

**RPDLimit** 

5.0

PQL

#### **Oualifiers:**

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

Page 5 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com

Client Name:	BLAGG	Work Order Numb	er: 1705B24		RcptNo:	1
Received By:	Anne Thome	5/20/2017 11:15:00	AM	am Shan		
Completed By:	Anne Thome	5/22/2017 7:38:20 A	M	an Im		
Reviewed By:	1-6	5/24/7				
Chain of Cus	tody					
1. Custody sea	als intact on sample botti	es?	Yes	No 🗆	Not Present ✓	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
	empt made to cool the sa	imples?	Yes 🗹	No 🗆	NA 🗆	
5. Were all san	nples received at a temp	perature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) in	n proper container(s)?	*	Yes 🗸	No 🗆		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
7. Sufficient sa	mple volume for indicate	ed test(s)?	Yes 🗹	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?			Yes 🗹	No 🗆		
<ol><li>Was preserv</li></ol>	vative added to bottles?		Yes	No 🗹	NA 🗆	
10. VOA vials ha	ave zero headspace?		Yes	No 🗌	No VOA Vials ✓	
	ample containers receive	ed broken?	Yes	No 🗹		•
					# of preserved bottles checked	
	work match bottle labels		Yes 🗹	No 🗆	for pH:	
	pancies on chain of cust		Yes 🗸	No 🗆	(<2 o	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?			Yes 🗹	No 🗆	_	
14. Is it clear what analyses were requested?  15. Were all holding times able to be met?			Yes 🗹	No 🗆	Checked by:	
	customer for authorization		103			
Special Hand	ling (if applicable)					
16. Was client n	otified of all discrepancie	es with this order?	Yes .	No 🗆	NA 🗹	
Person	Notified:	Date		THE RESERVE OF THE PERSON OF T		
By Wh	om:	Via:	eMail F	Phone Fax	☐ In Person	
Regard	ding:					
Client I	nstructions:					
17. Additional re	emarks:				-	
18. Cooler Info	rmation					
Cooler No	Temp °C Condition		Seal Date	Signed By		
[1	4.2 Good	Yes				



