

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

15593  
Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

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

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

1.  
Operator: BP AMERICA PRODUCTION COMPANY OGRID #: 778  
Address: 200 Energy Court, Farmington, NM 87401  
Facility or well name: NEBU SIMS MESA SWD 001  
API Number: 3003924236 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr E Section 10.0 Township 30.0N Range 07W County: Rio Arriba County  
Center of Proposed Design: Latitude 36.830817 Longitude -107.564767 NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.  
☐ Pit: Subsection F or G of 19.15.17.11 NMAC *\* Release Confirmed Additional C-141 Required.*  
Temporary: ☐ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_  
**OIL CONS. DIV DIST. 3**  
**SEP 06 2016**

3.  
☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC  
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other \_\_\_\_\_  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_

4.  
☒ Below-grade tank: Subsection I of 19.15.17.11 NMAC Tank ID: A  
Volume: 60.0 bbl Type of fluid: Produced Water  
Tank Construction material: Fiberglass  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other SINGLE WALLED SINGLE BOTTOMED SIDEWALLS NOT VISIBLE  
Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

5.  
☐ Alternative Method:  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

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6.

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

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

7.

**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)

8.

**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

9.

**Administrative Approvals 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:**

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

10.

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

**Instructions:** The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
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).	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. ( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> )	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. ( <i>Applies to permanent pits</i> )	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- NM Office of the State Engineer - iWATERS database search; 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 adopted pursuant to NMSA 1978, Section 3-27-3, as amended.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within 500 feet of a wetland.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	
Within the area overlying a subsurface mine.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	
Within an unstable area.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	
Within a 100-year floodplain.	<input type="checkbox"/> Yes <input type="checkbox"/> No
- FEMA map	



11.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

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

12.

**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

☐ Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

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

14.

**Proposed Closure:** 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System

☐ 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

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

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC



16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

*Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

☐ 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 I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

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

*Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.*

Ground water is less than 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 between 50 and 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

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 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 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 private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

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

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

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

☐ Yes ☐ No

Within an unstable area.

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

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

18.

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

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC



19.

**Operator Application Certification:**

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

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

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

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

20.

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

OCD Representative Signature:  Approval Date: 10/5/16

Title: Environmental Spec OCD Permit Number: \_\_\_\_\_

21.

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

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

☒ Closure Completion Date: 08/30/2016

22.

**Closure Method:**

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

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

- ☐ Site Reclamation (Photo Documentation)  
☐ Soil Backfilling and Cover Installation  
☐ Re-vegetation Application Rates and Seeding Technique

24.

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

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

On-site Closure Location: Latitude 36.830817 Longitude -107.564767 NAD: ☐ 1927 ☒ 1983

25.

**Operator Closure Certification:**

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

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

Signature:  Date: 08/30/2016

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



**BP AMERICA PRODUCTION COMPANY**  
**SAN JUAN BASIN, NORTHWEST NEW MEXICO**

**BELOW-GRADE TANK CLOSURE PLAN**

**NEBU SIMS MESA SWD 001 – Tank ID: A**

**API #: 3003924236**

**Unit Letter E, Section 10, T30N, R7W**

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

**General Closure Plan**

1. BP shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.

**Notice is attached.**

2. BP shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice shall include the operator's name, and the location to be closed by unit letter, section, township and range. If the BGT closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

**Notice was provided and documented in the attached email.**

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/or sludge within 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 are still operational with newly installed BGT.**

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 (mg/Kg)	Sample Results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	<0.076
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	3.14
TPH	US EPA Method SW-846 418.1	100	20,000
Chlorides	US EPA Method 300.0 or 4500B	250 or background	150

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 beneath the BGT was sampled for TPH, BTEX, and chloride. Benzene, total BTEX, & chloride below the stated limits. TPH by Method 8015M/D also exceeded release verification. A field 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 revealed evidence of a release has occurred. BP will adhere to NMOCD's Spill & Release guidelines.**

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 revealed evidence of a release has occurred. Impacted soils & bedrock were removed in July 2016. Upon receiving the preliminary lab results from the excavation, NMOCD granted approval to backfill with clean, earthen material. This area is within the active well pad will be reclaimed once the well is plugged & 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 BGT area has been backfilled and will be reclaimed once the well has been plugged & 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 BGT area has been backfilled and will be reclaimed once the well has been plugged & 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 BGT area has been backfilled and will be reclaimed once the well has been plugged & 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 BGT area has been backfilled and will be reclaimed once the well has been plugged & abandoned.**

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

**BP will notify NMOCD when re-vegetation is successfully completed.**

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 & contains a photo of the reclamation completion.**

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

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



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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company <b>BP America Production Company</b>	Contact <b>Steve Moskal</b>
Address <b>200 Energy Court, Farmington, NM 87401</b>	Telephone No. <b>(505) 326-9497</b>
Facility Name <b>NEBU SIMS MESA SWD 001</b>	Facility Type <b>Natural Gas Well</b>
Surface Owner <b>STATE</b>	Mineral Owner <b>STATE</b>
API No. <b>3003924236</b>	

### LOCATION OF RELEASE

Unit Letter <b>E</b>	Section <b>10</b>	Township <b>30N</b>	Range <b>7W</b>	Feet from the <b>1,450</b>	North/South Line <b>NORTH</b>	Feet from the <b>790</b>	East/West Line <b>WEST</b>	County <b>RIO ARRIBA</b>
-------------------------	----------------------	------------------------	--------------------	-------------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------------

Latitude **36.830817** Longitude **-107.564767**

### NATURE OF RELEASE

Type of Release <b>Exempt Waste from BGT (oil/condensate)</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>60 bbl BGT</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>7/11/2016 2:00 pm (during BGT removal).</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* **Nature of release from BGT only. Sampling beneath BGT was conducted immediately after removal. 5 point composite sample collected for laboratory analyses (TPH, BTEX, & chloride). Lab results for benzene, total BTEX, & chlorides were below the spill & release guideline closure standards. Field & laboratory analytical reports are attached.**

Describe Area Affected and Cleanup Action Taken.\* **Appears soil & bedrock hydrocarbon impacts were below & immediately adjacent to BGT foot print. Impacted soils & bedrock were excavated & removed in July 2016.**

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

### OIL CONSERVATION DIVISION

Signature: 

Printed Name: **Steve Moskal**

Title: **Environmental Field Coordinator**

E-mail Address: **steven.moskal@bp.com**

Date: **August 30, 2016**

Phone: **(505) 326.9497**

Approved by Environmental Specialist:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

\* Attach Additional Sheets If Necessary

#NCS 1627953913





BP America Production Company  
200 Energy Court  
Farmington, NM 87401

July 1, 2016

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

**VIA EMAIL**

Re: Notification of plans to close/remove a below grade tank  
Well Name: NEBU Simms SWD #1  
API #: 3003914236

Dear Mr Foley,

As part of the NM "Pit Rule": 19.15.17.13 Closure Requirements, Paragraph J. BP America Production Company (BP) is required to notify the surface owner of BP's plans to close/remove a below grade tank. BP wishes to inform you of our plans to close/remove the below grade tank on its well pad located on your surface. BP plans to commence this work on or about July 11, 2016. If there aren't any unforeseen problems, the work should be completed within 10 working days.

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

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:** Moskal, Steven  
**Sent:** Monday, July 11, 2016 7:34 AM  
**To:** Railsback, Farrah (CH2M HILL); Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us); Foley, Brandon M. (bfoley@slo.state.nm.us)  
**Cc:** jeffcblagg@aol.com; blagg\_njv@yahoo.com; Eickleberry, Jay T  
**Subject:** RE: BP Pit Close Notification - NEBU Simms SWD #1  
**Categories:** Action Needed

The BGT is scheduled to be removed at 8:30 AM this morning.

**Steve Moskal**

*BP Lower 48 – San Juan – Farmington*

*Field Environmental Coordinator*

Office: (505) 326-9497

Cell: (505) 330-9179



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**From:** Railsback, Farrah (CH2M HILL)  
**Sent:** Wednesday, July 06, 2016 1:52 PM  
**To:** Smith, Cory, EMNRD; Fields, Vanessa, EMNRD ([Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us))  
**Cc:** [jeffcblagg@aol.com](mailto:jeffcblagg@aol.com); [blagg\\_njv@yahoo.com](mailto:blagg_njv@yahoo.com); Moskal, Steven  
**Subject:** BP Pit Close Notification - NEBU Simms SWD #1

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

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

July 6, 2016



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

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

NEBU Simms SWD #1  
API 30-039-24236  
Section 10 – T30N – R07W  
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 60 bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around July 11, 2016.

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

Sincerely,

Steven Moskal  
BP Field Environmental Coordinator

(505) 326-9497

***Farrah Railsback***

**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: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>3003924236</b> TANK ID (if applicable): <b>A</b>
<b>FIELD REPORT:</b> (circle one) <u>BGT CONFIRMATION</u> / RELEASE INVESTIGATION / OTHER:		PAGE #: <b>1</b> of <b>1</b>
<b>SITE INFORMATION:</b> SITE NAME: <b>NEBU SIMS MESA SWD # 1</b> QUAD/UNIT: <b>E</b> SEC: <b>10</b> TWP: <b>30N</b> RNG: <b>7W</b> PM: <b>NM</b> CNTY: <b>RA</b> ST: <b>NM</b> 1/4 - 1/4 FOOTAGE: <b>1,450'N / 790'W</b> <b>SW/NW</b> LEASE TYPE: <b>FEDERAL</b> <u>STATE</u> / FEE / INDIAN LEASE #: <b>-</b> PROD. FORMATION: <b>-</b> CONTRACTOR: <b>BP - J. LAUTEY</b>		DATE STARTED: <b>07/11/16</b> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST(S): <b>NJV</b>
<b>REFERENCE POINT:</b> WELL HEAD (W.H.) GPS COORD.: <b>36.830393 X 107.564706</b> GL ELEV.: <b>6,313'</b> 1) <b>60 BGT (SW/SB)</b> GPS COORD.: <b>36.830817 X 107.564767</b> DISTANCE/BEARING FROM W.H.: <b>148.5', N2W</b> 2) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____ 3) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____ 4) _____ GPS COORD.: _____ DISTANCE/BEARING FROM W.H.: _____		
<b>SAMPLING DATA:</b> CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <b>HALL</b> 1) SAMPLE ID: <b>5PC - EB @ 10'</b> SAMPLE DATE: <b>07/11/16</b> SAMPLE TIME: <b>1410</b> LAB ANALYSIS: <b>418.1/8015B/8021B/300.0 (CI)</b> OVM READING (ppm): <b>45.0</b> 2) SAMPLE ID: <b>4PC - SW @ 8' - 9'</b> SAMPLE DATE: <b>07/11/16</b> SAMPLE TIME: <b>1425</b> LAB ANALYSIS: <b>8015B/8021B/300.0 (CI)</b> OVM READING (ppm): <b>60.1</b> 3) SAMPLE ID: <b>4PC - SW @ 7'</b> SAMPLE DATE: <b>07/11/16</b> SAMPLE TIME: <b>1433</b> LAB ANALYSIS: <b>8015B/8021B/300.0 (CI)</b> OVM READING (ppm): <b>45.3</b> 4) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ OVM READING (ppm): _____		
<b>SOIL DESCRIPTION:</b> SOIL TYPE: SAND <u>SILTY SAND</u> SILT <u>SILTY CLAY</u> <u>CLAY</u> GRAVEL <u>OTHER</u> <b>BEDROCK (SANDSTONE)</b> SOIL COLOR: <b>MOSTLY DARK YELLOWISH ORANGE</b> PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC <u>COHESIVE</u> <u>MEDIUM PLASTIC</u> HIGHLY PLASTIC COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE <u>HIGHLY COHESIVE</u> DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM <u>STIFF</u> <u>VERY STIFF</u> HARD CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE <u>VERY DENSE</u> HC ODOR DETECTED: <u>YES</u> NO EXPLANATION - <b>DISCOLORED SOILS ONLY.</b> MOISTURE: <u>DRY</u> SLIGHTLY MOIST / MOIST <u>WET</u> SATURATED / SUPER SATURATED SAMPLE TYPE: GRAB <u>COMPOSITE</u> # OF PTS. <b>4 &amp; 5</b> ANY AREAS DISPLAYING WETNESS: <u>YES</u> / NO EXPLANATION - <b>BOTTOM OF EXCAVATION.</b> DISCOLORATION/STAINING OBSERVED: <u>YES</u> NO EXPLANATION - <b>IN BEDROCK STARTING @ 8 FT. BELOW GRADE (OLIVE GRAY TO BLACK).</b>		
<b>SITE OBSERVATIONS:</b> LOST INTEGRITY OF EQUIPMENT: <u>YES</u> NO EXPLANATION - <b>FLUID FLOWING FROM BGT BOTTOM CREASE.</b> APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> NO EXPLANATION: <b>FLUID IN EXCAVATION &amp; DISCOLORED SOILS.</b> EQUIPMENT SET OVER RECLAIMED AREA: YES <u>NO</u> EXPLANATION - <b>BETTER DESIGNED BGT TO BE INSTALLED.</b> OTHER: <b>NORTH &amp; EAST SIDEWALLS DISCOLORED FROM 7 - 10 FT. BELOW GRADE. SANDSTONE @ 9 - 10 FT. BELOW GRADE, MOSTLY DARK GRAY TO BLACK, VERY HARD, COMPETENT. NMOCD REP. PRESENT DURING SAMPLE COLLECTION.</b> SOIL IMPACT DIMENSION ESTIMATION: _____ ft. X _____ ft. X _____ ft. EXCAVATION ESTIMATION (Cubic Yards): _____ ? DEPTH TO GROUNDWATER: <b>&gt;100'</b> NEAREST WATER SOURCE: <b>&gt;1,000'</b> NEAREST SURFACE WATER: <b>&gt;1,000'</b> NMOCD TPH CLOSURE STD: <b>5,000</b> ppm		
<b>SITE SKETCH</b> BGT Located : off <u>on</u> site      PLOT PLAN circle: <u>attached</u> <b>FIGURE 3</b> <div style="text-align: center;"> </div>		
OVM CALIB. READ. = <b>54.8</b> ppm RF=0.52 OVM CALIB. GAS = <b>100</b> ppm TIME: <b>2:39</b> (am/pm) DATE: <b>07/11/16</b>		<b>MISCELL. NOTES</b> WO: _____ REF #: _____ VID: _____ PJ #: _____ Permit date(s): <b>10/02/08</b> OCD Appr. date(s): <b>03/20/12</b> Tank ID: <b>A</b> OVM = Organic Vapor Meter ppm = parts per million BGT Sidewalls Visible: Y / <u>(N)</u> BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N Magnetic declination: <b>10° E</b>
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGT. = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM. NOTES: <b>GOOGLE EARTH IMAGERY DATE: 3/16/2016.</b> ONSITE: <b>07/11/16</b>		



FIGURE 3

BGT POSITION

**BP - NEBU Sims Mesa SWD 001**

(E) Sec. 10, T30N, R7W  
API #: 3003924236

Imagery date: 3/16/2016

Google earth

© SPOT IMAGE  
© 2016 Google

WH



100 ft



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**Lab Order **1607485**Date Reported: **7/13/2016****CLIENT:** Blagg Engineering**Client Sample ID:** 5PC-EB @ 10'**Project:** NEBU SIMS MESA SWD #1**Collection Date:** 7/11/2016 2:10:00 PM**Lab ID:** 1607485-001**Matrix:** SOIL**Received Date:** 7/12/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>TOM</b>
Petroleum Hydrocarbons, TR	20000	2000		mg/Kg	100	7/12/2016 12:00:00 PM	26343
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	150	30		mg/Kg	20	7/12/2016 11:02:55 AM	26348
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	4000	1000		mg/Kg	100	7/12/2016 11:40:52 AM	26339
Motor Oil Range Organics (MRO)	10000	5000		mg/Kg	100	7/12/2016 11:40:52 AM	26339
Surr: DNOP	0	70-130	S	%Rec	100	7/12/2016 11:40:52 AM	26339
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	32	15		mg/Kg	5	7/12/2016 9:36:18 AM	26325
Surr: BFB	139	80-120	S	%Rec	5	7/12/2016 9:36:18 AM	26325
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.076		mg/Kg	5	7/12/2016 9:36:18 AM	26325
Toluene	0.68	0.15		mg/Kg	5	7/12/2016 9:36:18 AM	26325
Ethylbenzene	0.16	0.15		mg/Kg	5	7/12/2016 9:36:18 AM	26325
Xylenes, Total	2.3	0.30		mg/Kg	5	7/12/2016 9:36:18 AM	26325
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	5	7/12/2016 9:36:18 AM	26325

**Totals for 5 pt. composite of excavation base (sandstone)****TPH (8015M/D) = 14.032 mg/Kg****Total BTEX = 3.14 mg/Kg**

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

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

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

Lab Order 1607488

Date Reported: 7/13/2016

**CLIENT:** Blagg Engineering**Client Sample ID:** 4 PC-SW @ 8'-9'**Project:** NEBU SIMS MESA SWD #1**Collection Date:** 7/11/2016 2:25:00 PM**Lab ID:** 1607488-001**Matrix:** SOIL**Received Date:** 7/12/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	200	30		mg/Kg	20	7/12/2016 11:40:09 AM	26348
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	3100	93		mg/Kg	10	7/12/2016 10:47:58 AM	26339
Motor Oil Range Organics (MRO)	9200	460		mg/Kg	10	7/12/2016 10:47:58 AM	26339
Surr: DNOP	0	70-130	S	%Rec	10	7/12/2016 10:47:58 AM	26339
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	9.9	6.7		mg/Kg	2	7/12/2016 10:29:21 AM	A35621
Surr: BFB	114	80-120		%Rec	2	7/12/2016 10:29:21 AM	A35621
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.033		mg/Kg	2	7/12/2016 10:29:21 AM	B35621
Toluene	0.15	0.067		mg/Kg	2	7/12/2016 10:29:21 AM	B35621
Ethylbenzene	ND	0.067		mg/Kg	2	7/12/2016 10:29:21 AM	B35621
Xylenes, Total	0.51	0.13		mg/Kg	2	7/12/2016 10:29:21 AM	B35621
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	2	7/12/2016 10:29:21 AM	B35621

**Totals for sidewall 4 pt. composite near excavation base****TPH (8015M/D) = 12,309.9 mg/Kg    Total BTEX = 0.66 mg/Kg**

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

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



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

Lab Order 1607488

Date Reported: 7/13/2016

**CLIENT:** Blagg Engineering**Client Sample ID:** 4 PC-SW @ 7'**Project:** NEBU SIMS MESA SWD #1**Collection Date:** 7/11/2016 2:33:00 PM**Lab ID:** 1607488-002**Matrix:** SOIL**Received Date:** 7/12/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	160	30		mg/Kg	20	7/12/2016 11:52:33 AM	26348
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	7/12/2016 11:40:18 AM	26339
Motor Oil Range Organics (MRO)	4000	500		mg/Kg	10	7/12/2016 11:40:18 AM	26339
Surr: DNOP	0	70-130	S	%Rec	10	7/12/2016 11:40:18 AM	26339
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	7/12/2016 10:05:03 AM	A35621
Surr: BFB	91.7	80-120		%Rec	1	7/12/2016 10:05:03 AM	A35621
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	7/12/2016 10:05:03 AM	B35621
Toluene	ND	0.038		mg/Kg	1	7/12/2016 10:05:03 AM	B35621
Ethylbenzene	ND	0.038		mg/Kg	1	7/12/2016 10:05:03 AM	B35621
Xylenes, Total	ND	0.076		mg/Kg	1	7/12/2016 10:05:03 AM	B35621
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	7/12/2016 10:05:03 AM	B35621

**Totals for sidewall 4 pt. composite mid section of BGT****TPH (8015M/D) = 5.000 mg/Kg****Total BTEX = ND**

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

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

Turn-Around Time: **JAMIE**  
**DRY**

Client: BLAGE ENGR. / BP AMERICA

Mailing Address: P.O. Box 87

Project Name: NEBU SIMS MESA SWD #1

B.F.O. NM 87413

Project #:

Phone #: 505. 320. 3489

Project Manager: / JV

nail or Fax#:

**A/QC Package:**

☐ Standard ☐ Level 4 (Full Validation)

Sampler: NELSON VELEZ

ccreditation

☒ NELAP      ☐ Other \_\_\_\_\_On Ice ☒ Yes ☐ No

EDD (Type) \_\_\_\_\_

Sample Temperature: 2.1

[illegible]

Analysis Request	
✓	BTEX + <del>WDE</del> <del>THM's</del> (8021B)
	BTEX + MTBE + TPH (Gas only)
✓	TPH 8015B (GRO / DRO <del>THM's</del> )
✓	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
✓	<del>CHLORIDE</del> (300.0)
✓	5PT. COMPOSITE
	Air Bubbles (Y or N)

ate:	Time:	Relinquished by:
11/16	1745	<i>[Signature]</i>

Received by: *[Signature]* Date: 02/12/16 Time: 07:50

ate:	Time:	Relinquished by: <i>U</i>
------	-------	---------------------------

Received by:	Date	Time

Remarks: CONTACT BP (STEVE MOSKAL)  
FOR INVOICE INFORMATION.



SAME  
DAY

☐ Standard ☒ Rush

NEBU SIMS MESA SWD # (

Project #:

**Project Manager:**

Project Manager: NELSON VELEZ


Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature 2.

August 16		
-----------	--	--

Analysis Request									
✓	✓	BTEX <del>THM's</del> THM's (80216)							
		BTEX + MTBE + TPH (Gas only)							
	✓	TPH 8015B (GRO / DRO <del>THM's</del> )							
		TPH (Method 418.1)							
		EDB (Method 504.1)							
		PAH's (8310 or 8270 SIMS)							
		RCRA 8 Metals							
		Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )							
		8081 Pesticides / 8082 PCB's							
		8260B (VOA)							
		8270 (Semi-VOA)							
	✓	CHLORIDE (300.0)							
	✓	4 pt. Composite							
		Air Bubbles (Y or N)							

Received by: 	Date	Time
Received by:	Date	Time

Remarks: CONTACT BP (STEVE MOSKAL)  
FOR INVOICE INFORMATION.

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607485

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	MB-26348	SampType:	mbk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	26348		RunNo:	35639				
Prep Date:	7/12/2016	Analysis Date:	7/12/2016		SeqNo:	1102701	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-26348	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	26348	RunNo:	35639					
Prep Date:	7/12/2016	Analysis Date:	7/12/2016	SeqNo:	1102702	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607485

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	MB-26343	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	26343	RunNo:	35622					
Prep Date:	7/12/2016	Analysis Date:	7/12/2016	SeqNo:	1102250	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-26343	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	26343	RunNo:	35622					
Prep Date:	7/12/2016	Analysis Date:	7/12/2016	SeqNo:	1102252	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	93	20	100.0	0	92.9	80.7	121			

Sample ID	LCSD-26343	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	26343	RunNo:	35622					
Prep Date:	7/12/2016	Analysis Date:	7/12/2016	SeqNo:	1102253	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	94	20	100.0	0	94.2	80.7	121	1.37	20	

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607485

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	LCS-26339		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 26339		RunNo: 35609					
Prep Date:	7/12/2016		Analysis Date: 7/12/2016		SeqNo: 1102200		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	62.6	124			
Surr: DNOP	4.0		5.000		79.6	70	130			

Sample ID	MB-26339		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	26339		RunNo:	35609				
Prep Date:	7/12/2016		Analysis Date:	7/12/2016		SeqNo:	1102201		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.8		10.00		88.1	70	130				

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607485

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	MB-26325	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	26325	RunNo:	35619					
Prep Date:	7/11/2016	Analysis Date:	7/12/2016	SeqNo:	1102390	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.7	80	120			

Sample ID	LCS-26325	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	26325	RunNo:	35619					
Prep Date:	7/11/2016	Analysis Date:	7/12/2016	SeqNo:	1102391	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	1000		1000		105	80	120			

## Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607485

13-Jul-16

Client: Blagg Engineering

Project: NEBU SIMS MESA SWD #1

Sample ID	MB-26325		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	26325		RunNo:	35619			
Prep Date:	7/11/2016		Analysis Date:	7/12/2016		SeqNo:	1102416		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.2	80	120			

Sample ID	LCS-26325		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	26325		RunNo:	35619			
Prep Date:	7/11/2016		Analysis Date:	7/12/2016		SeqNo:	1102417		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	75.3	123			
Toluene	0.95	0.050	1.000	0	95.5	80	124			
Ethylbenzene	0.99	0.050	1.000	0	99.3	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	99.1	83.9	122			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

## Qualifiers:

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





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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1607485

RcptNo: 1

Received by/date: AS 07/21/16

Logged By: Anne Thorne 7/12/2016 7:50:00 AM

Completed By: Anne Thorne 7/12/2016

Reviewed By: Ja 07/12/16

*Anne Thorne*

*Anne Thorne*

### Chain of Custody

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

### Log In

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

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

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

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

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

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607488

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	MB-26348	SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	26348		RunNo:	35639				
Prep Date:	7/12/2016	Analysis Date:	7/12/2016		SeqNo:	1102701	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-26348		SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	26348		RunNo:	35639				
Prep Date:	7/12/2016		Analysis Date:	7/12/2016		SeqNo:	1102702		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.5	90	110				

## Qualifiers:

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607488

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	LCS-26339		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 26339		RunNo: 35609					
Prep Date:	7/12/2016		Analysis Date: 7/12/2016		SeqNo: 1102200		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	62.6	124			
Surr: DNOP	4.0		5.000		79.6	70	130			

Sample ID	MB-26339		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	26339		RunNo:	35609				
Prep Date:	7/12/2016		Analysis Date:	7/12/2016		SeqNo:	1102201		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.8		10.00		88.1	70	130				

## Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607488

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A35621	RunNo:	35621					
Prep Date:		Analysis Date:	7/12/2016	SeqNo:	1102260	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	770		1000		77.0	80	120			S

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A35621	RunNo:	35621					
Prep Date:		Analysis Date:	7/12/2016	SeqNo:	1102261	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	80	120			
Surr: BFB	910		1000		91.1	80	120			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607488

13-Jul-16

Client: Blagg Engineering  
Project: NEBU SIMS MESA SWD #1

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B35621	RunNo:	35621					
Prep Date:		Analysis Date:	7/12/2016	SeqNo:	1102264	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.80		1.000		80.2	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B35621	RunNo:	35621					
Prep Date:		Analysis Date:	7/12/2016	SeqNo:	1102265	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.9	75.3	123			
Toluene	0.90	0.050	1.000	0	89.5	80	124			
Ethylbenzene	0.90	0.050	1.000	0	89.9	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	90.6	83.9	122			
Surr: 4-Bromofluorobenzene	0.83		1.000		82.7	80	120			

## Qualifiers:

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

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



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

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1607488

RcptNo: 1

Received by/date: AT 07/12/16

Logged By: Anne Thorne

7/12/2016 7:50:00 AM

*Anne Thorne*

Completed By: Anne Thorne

7/12/2016

*Anne Thorne*

Reviewed By: *AT*

07/12/16

### Chain of Custody

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

### Log In

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

# of preserved bottles checked for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

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

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

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

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			



