

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

14275

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

**RECEIVED**

By kcollins at 7:38 am, Mar 09, 2016

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

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

1.

Operator: Burlington Resources Oil & Gas Company, LP OGRID #: 14538

Address: PO BOX 4289, Farmington, NM 87499

Facility or well name: Nye SRC 14

API Number: 30-045-11663

OCD Permit Number: \_\_\_\_\_

U/L or Qtr/Qtr J Section 13 Township 30N Range 11W County: San Juan

Center of Proposed Design: Latitude 36.809433 °N Longitude -107.9838879 °W NAD: ☐ 1927 ☒ 1983

Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC

Temporary: ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no

☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

☐ String-Reinforced

Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

3.

☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC

Volume: 120 bbl Type of fluid: Produced Water

Tank Construction material: Metal

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☒ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_

Liner type: Thickness 45 mil ☐ HDPE ☐ PVC ☒ Other LLDPE

4.

☐ **Alternative Method:**

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

5.

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

☐ Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify \_\_\_\_\_

*dw*

6.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)☐ Screen ☐ Netting ☐ Other \_\_\_\_\_☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers☐ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

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

***Please check a box if one or more of the following is requested, if not leave blank:***☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*****General siting****Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells☐ Yes ☐ No  
☒ NA**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

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

☐ Yes ☐ No  
☒ NAWithin 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 ☐ NoWithin 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 ☐ NoWithin an unstable area. **(Does not apply to below grade tanks)**☐ Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map☐ Yes ☐ NoWithin 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 application.

☐ Visual inspection (certification) of the proposed site; Aerial photo; Satellite image☐ Yes ☐ No

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 300 feet 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

10.

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

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

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

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

11.

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

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

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

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



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

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

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

13. **Proposed Closure:** 19.15.17.13 NMAC

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

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit  
☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method

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

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

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

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

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



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

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

☐ Yes ☐ No

Within the area overlying a subsurface mine.

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

☐ Yes ☐ No

Within an unstable area.

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

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

16.

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

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

17.

**Operator Application Certification:**

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

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

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

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

18.

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

OCD Representative Signature: Vanessa R. Baker Approval Date: 04-05-2016

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

19.

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

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

☒ Closure Completion Date: 9/10/15

20.

**Closure Method:**

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

21.

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

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

On-site Closure Location: Latitude N Longitude W NAD: ☐ 1927 ☐ 1983

**Operator Closure Certification:**

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

Name (Print): Larissa Farrell Title: Regulatory Technician

Signature: *Larissa Farrell* Date: 2-5-16

e-mail address: Larissa.L.Farrell@cop.com Telephone: (505) 326-9504



**Burlington Resources Oil & Gas Company, LP**  
**San Juan Basin**  
**Below Grade Tank Closure Report**

**Lease Name: NYE SRC 14**  
**API No.: 30-045-11663**

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

General Plan:

1. BR shall close a below-grade tank within 60 days of cessation of operations per Subsection G.4 of 19.15.17.13 NMAC. This will include a) below-grade tanks that do 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, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, BR will file the C144 Closure Report as required.

**The below-grade tank referenced above was permitted and closed within 60 days of cessation of the below-grade tanks operation.**

2. BR shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005), JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B) and Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.

**All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B). The liner was cleaned per Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC was disposed of at the San Juan County Regional Landfill located on CR 3100.**

3. BR will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves.

**The below-grade tank was disposed of in a division-approved manner.**

4. If there is any on-site equipment associated with a below-grade tank, then BR shall remove the equipment, unless the equipment is required for some other purpose.

**All on-site equipment associated with the below-grade tank was removed.**

5. BR will test the soils beneath the below-grade tank to determine whether a release has occurred. BR shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyzed for the constituents listed in Table I of 19.15.17.13 NMAC. COPC shall notify the division of its results on form C-141.

A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b). (Sample results attached). Form C-141 is attached.

Components	Tests Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.0	250

6. If BR or the division determines that a release has occurred, then BR shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

**A release was determined for the above referenced well.**

7. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Table I of 19.15.17.13 NMAC, then BR shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.

**The below-grade tank area passed all requirements of Paragraph (4) of Subsection E of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material.**

8. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
- Operator's name
  - Location by Unit Letter, Section, Township, and Range. Well name and API number.

**Notification was not found.**

9. The surface owner shall be notified of BR's closing of the below-grade tank 72 hours, but not more than one week, prior to closure as per the approved closure plan via certified mail, return receipt requested.

**The closure process notification to the landowner was not found.**

10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The below-grade tank area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Re-shaping including drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final recontour has a uniform appearance with smooth surface, fitting the natural landscape.**

11. BR shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre- disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. COPC will repeat seeding or planting will be continued until successful vegetative growth occurs.



**Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.**

12. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material, with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

**The below-grade tank area was backfilled and more than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
  - Soil Backfilling and Cover Installation **(See Report)**
  - Re-vegetation application rates and seeding techniques **(See Report)**
  - Photo documentation of the site reclamation **(Included as an attachment)**
  - Confirmation Sampling Results **(Included as an attachment)**
  - Proof of closure notice **(Included as an attachment)**

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1625 N. French Dr., Hobbs, NM 88240  
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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 to  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company <b>Burlington Resources Oil &amp; Gas Company</b>	Contact <b>Crystal Tafoya</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 326-9837</b>
Facility Name: <b>Nye SRC 14</b>	Facility Type: <b>Gas Well</b>

Surface Owner	Mineral Owner <b>Federal (SF-078198)</b>	API No. <b>30-045-11663</b>
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**LOCATION OF RELEASE**

Unit Letter <b>J</b>	Section <b>13</b>	Township <b>30N</b>	Range <b>11W</b>	Feet from the <b>1780</b>	North/South Line <b>South</b>	Feet from the <b>1570</b>	East/West Line <b>East</b>	County <b>San Juan</b>
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Latitude **36.80949** Longitude **107.93913**

**NATURE OF RELEASE**

Type of Release <b>Produced Fluids</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>514 cu. yds.</b>
Source of Release <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>July 28, 2014</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.\*  
**N/A**

**OIL CONS. DIV DIST. 3**

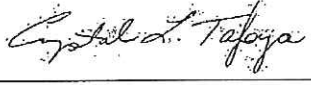
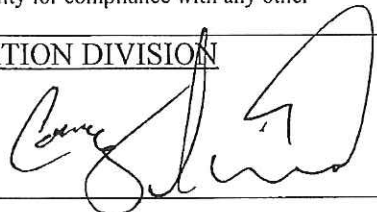
**NOV 18 2014**

Describe Cause of Problem and Remedial Action Taken.\*  
**Below Grade Tank Closure Activities**

Describe Area Affected and Cleanup Action Taken.\*

The below grade tank sample results were above regulatory standards by USEPA method 418.1 for TPH confirmation a release. The excavation was 31' X 28' X 16' and 514 cubic yards of soil was transported to a third party landfarm. Excavation and confirmation sampling occurred. Analytical results for TPH, BTEX and Chlorides were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases; therefore no further action is required. The final report is attached for review.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Crystal Tafoya</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>1/5/15</b>	Expiration Date:
E-mail Address: <b>crystal.tafoya@conocophillips.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>11/17/2014</b> Phone: <b>(505) 326-9837</b>		

\* Attach Additional Sheets If Necessary

**#1500529948**

**38**





November 7, 2014

Crystal Tafoya  
ConocoPhillips  
San Juan Business Unit  
Office 214-05  
5525 Hwy 64  
Farmington, New Mexico 87401

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Initial Release Assessment and Final Excavation Report  
Nye SRC #14  
San Juan County, New Mexico**

Dear Ms. Tafoya:

On July 28, August 11, and September 18, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Nye SRC #14, located in San Juan County, New Mexico. The release consisted of historic contamination associated with produced water and condensate discovered during plugging and abandonment activities at the location. The initial release assessment was completed by AES on August 11, 2014, and the final excavation was completed by CoP contractors while AES' was at the location on September 18, 2014.

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## 1.0 Site Information

### 1.1 Location

Site Name – Nye SRC #14

Location – NW¼ SE¼, Section 13, T30N, R11W, San Juan County, New Mexico

Well Head Latitude/Longitude – N36.80949 and W107.93913,  
respectively

Release Location Latitude/Longitude – N36.80944 and W107.93888,  
respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, July 2014

604 W. Piñon St.  
Farmington, NM 87401  
505-564-2281

1911 Main, Ste 280  
Durango, CO  
970-403-3084

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 20 based on the following factors:

- **Depth to Groundwater:** The New Mexico Office of the State Engineer (NMOSE) database was searched, and NMOSE well SJ01720, located approximately 1,550 feet to the northwest and 50 feet lower in elevation, reported the depth to groundwater at 90 feet below ground surface (bgs). Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be greater than 100 feet bgs. (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Hampton Arroyo is located approximately 70 feet south of the location and drains to the northwest into the Animas River. (20 points)

## 1.3 Assessment

AES was initially contacted by Travis Andrews, CoP representative, on July 28, 2014, and on the same day, Stephanie Hinds and Laura Lane of AES conducted the initial release assessment field work. The assessment included collection and field sampling of 12 soil samples from five assessment trenches in and around the release area. Trenches were terminated between 7 and 15 feet below grade.

On August 11, 2014, AES returned to the location to conduct further release assessment field work. This assessment included collection and field sampling of 10 soil samples from four soil borings around the release area. Based on the field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On September 18, 2014, AES returned to the location to collect confirmation soil samples of the excavation area. The field sampling activities included collection of five confirmation soil samples from the walls and base of the excavation. The area of the final excavation measured approximately 31 feet by 28 feet by 16 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

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## 2.0 Soil Sampling

A total of 22 soil samples from five assessment trenches (TH-1 through TH-5), four borings (SB-1 through SB-4) and five composite samples (SC-1 through SC-5) were collected during the assessments and excavation clearance work. All soil samples were field screened for



volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). One sample (TH-1) collected during the initial release assessment and five composite samples (SC-1 through SC-5) collected during the excavation clearance were submitted for confirmation laboratory analysis.

## 2.1 Field Sampling

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

## 2.3 Field and Laboratory Analytical Results

On July 28, 2014, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in TH-2 up to 1,117 ppm in TH-1. Field TPH concentrations ranged from 36.2 mg/kg in TH-5 up to greater than 2,500 mg/kg in TH-1.

On August 11, 2014, field screening results for VOCs via OVM showed concentrations ranging from 0.1 ppm in SB-1 and SB-4 up to 1.2 ppm in SB-2. Field TPH concentrations ranged from 22.6 mg/kg in SB-1 at 5 feet up to 48.9 mg/kg in SB-1 at 12.5 feet.

On September 18, 2014, final excavation field screening results for VOCs via OVM ranged from 12.6 ppm in SC-3 up to 1,025 ppm in SC-5. Field TPH concentrations ranged from 32.8

mg/kg in SC-2 up to 103 mg/kg in SC-1. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Field Sampling VOCs and TPH Results  
Nye SRC #14 Initial Release Assessment and Final Excavation Clearance  
July, August, and September 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>100</i>
TH-1	7/28/14	4.5	23.4	<b>1,060</b>
		7	55.4	<b>&gt;2,500</b>
		15	<b>1,117</b>	<b>1,670</b>
TH-2	7/28/14	4.5	0.5	<b>1,480</b>
		7	0.0	<b>103</b>
TH-3	7/28/14	4.5	0.7	<b>522</b>
		7	0.1	81.0
TH-4	7/28/14	4.5	1.0	<b>174</b>
		7	21.6	<b>1,890</b>
		10	3.2	<b>1,130</b>
TH-5	7/28/14	4.5	1.1	<b>397</b>
		7	0.6	36.2
SB-1	8/11/14	5	0.2	22.6
		7	0.1	28.2
		12.5	0.7	48.9
SB-2	8/11/14	5	1.2	26.8
		7	0.7	37.9
SB-3	8/11/14	5	0.3	33.7
		7	0.2	NA
SB-4	8/11/14	5	0.1	NA
		7	0.3	26.8
		12.5	0.1	28.2
SC-1	9/18/14	1 to 16	<b>103</b>	<b>103</b>
SC-2	9/18/14	1 to 16	19.5	32.8
SC-3	9/18/14	1 to 16	12.6	55.1



<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	100
SC-4	9/18/14	1 to 16	34.8	44.0
SC-5	9/18/14	16	1,025	80.3

NA – not analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for TH-1 were used to confirm field sampling results of the initial release assessment. Benzene concentrations were reported below laboratory detection limits. Total BTEX concentrations were reported as 10 mg/kg. TPH concentrations (as GRO/DRO) were reported at 1,460 mg/kg.

Laboratory analyses for SC-1 through SC-5 were used to confirm field sampling results from the final excavation. Benzene concentrations in SC-1 through SC-5 were reported below laboratory detection limits. Total BTEX concentrations were below laboratory detection limits in SC-1 through SC-4 and were reported at 0.630 mg/kg in SC-5. TPH concentrations as GRO/DRO in SC-2 through SC-4 were reported below laboratory detection limits and were reported at 73 mg/kg in SC-1 and 71 mg/kg in SC-5. Results are presented in Table 2 and on Figure 4. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
Nye SRC #14 Initial Release Assessment and Final Excavation Clearance  
July, August, and September 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	100	
TH-1	7/28/14	15	<0.076	10	580	880
SC-1	9/18/14	1 to 16	<0.038	<0.191	<3.8	73
SC-2	9/18/14	1 to 16	<0.048	<0.24	<4.8	<10
SC-3	9/18/14	1 to 16	<0.049	<0.244	<4.9	<10
SC-4	9/18/14	1 to 16	<0.047	<0.235	<4.7	<10
SC-5	9/18/14	16	<0.036	0.630	29	42

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On July 28 and August 11, 2014, AES conducted an initial assessment of petroleum contaminated soils associated with a historic release of produced water and condensate at the Nye SRC #14. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 20.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in TH-1 through TH-5. The highest VOC concentration was reported in TH-1 with 1,117 ppm, and the highest TPH concentration was also reported in TH-1 with greater than 2,500 mg/kg.

Laboratory analyses for TH-1 were used to confirm field sampling results. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. TPH concentrations as GRO/DRO of 1,460 mg/kg exceeded the NMOCD action level of 100 mg/kg.

On September 18, 2014, final excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final walls of the excavation, except for SC-1 (north wall) which had a VOC concentration of 103 ppm. VOC concentrations also exceeded NMOCD action levels for the excavation base (SC-5), at 1,025 mg/kg. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation, with the exception of SC-1 (north wall) which had a TPH concentration of 103 mg/kg. However, laboratory analytical results reported benzene, total BTEX, and TPH concentrations (as GRO/DRO) below applicable NMOCD action levels in SC-1 through SC-5.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Nye SRC #14, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Emilee Skyles at (505) 564-2281.

Sincerely,



David J. Reese



Environmental Scientist



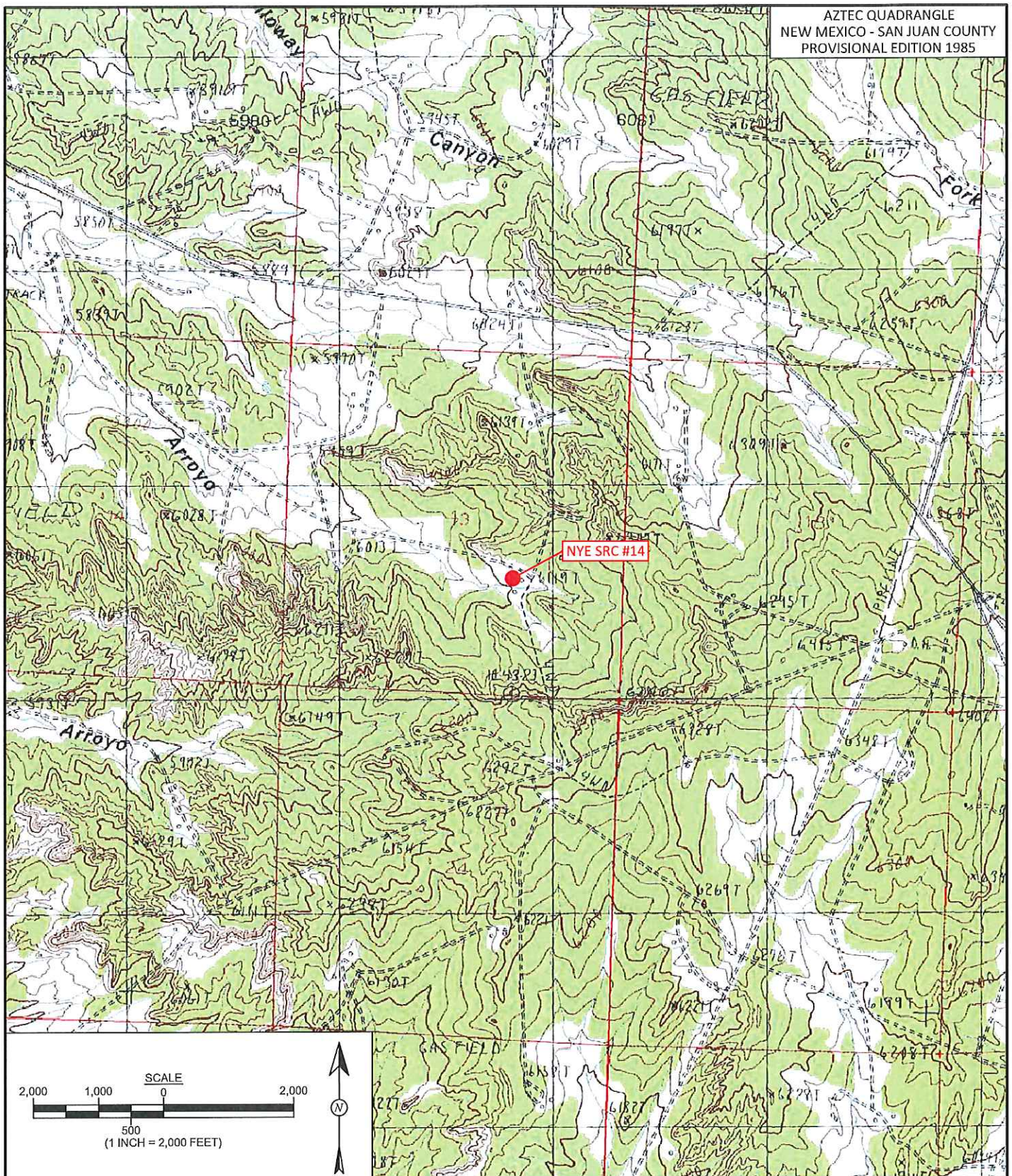
Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, July 2014
- Figure 3. Release Assessment Sample Locations and Results, July and August 2014
- Figure 4. Final Excavation Sample Locations and Results, September 2014
- AES Field Sampling Report 072814
- AES Field Sampling Report 081114
- AES Field Sampling Report 091814
- Hall Laboratory Analytical Report 1407D67
- Hall Laboratory Analytical Report 1409946

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Projects\ConocoPhillips\Nye SRC #14\Nye SRC #14 Release and Final Excavation Report 110714.docx





DRAWN BY: S. Glasses	DATE DRAWN: July 29, 2014
REVISIONS BY: C. Lameman	DATE REVISED: July 29, 2014
CHECKED BY: E. Skyles	DATE CHECKED: July 29, 2014
APPROVED BY: E. McNally	DATE APPROVED: July 29, 2014

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
NYE SRC #14  
NW¼ SE¼, SECTION 13, T30N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.80949, W107.93913



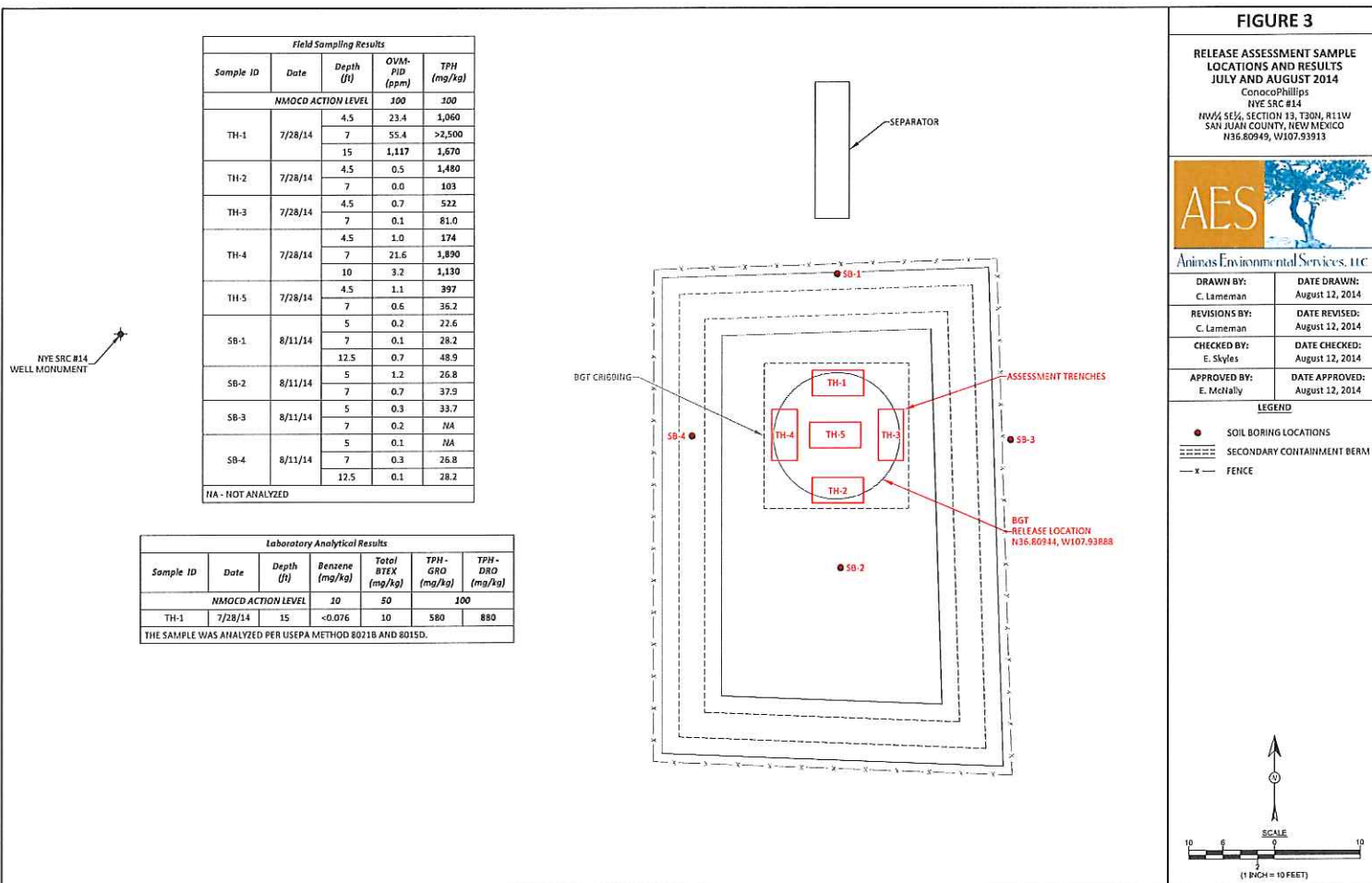


<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> July 29, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 29, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> July 29, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 29, 2014

**FIGURE 2**

**AERIAL SITE MAP  
JULY 2014**

ConocoPhillips  
NYE SRC #14  
NW¼ SE¼, SECTION 13, T30N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.80949, W107.93913





Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOC ACTION LEVEL			100	100
SC-1	9/18/14	1 to 16	103	103
SC-2	9/18/14	1 to 16	19.5	32.8
SC-3	9/18/14	1 to 16	12.6	55.1
SC-4	9/18/14	1 to 16	34.8	44.0
SC-5	9/18/14	16	1,025	80.3
ALL SAMPLES ARE COMPOSITE SAMPLES.				

NYE SRC #14  
WELL MONUMENT

Laboratory Analytical Results					
Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOC ACTION LEVEL		10	50	100	
SC-1	9/18/14	<0.038	<0.191	<3.8	73
SC-2	9/18/14	<0.048	<0.24	<4.8	<10
SC-3	9/18/14	<0.049	<0.244	<4.9	<10
SC-4	9/18/14	<0.047	<0.235	<4.7	<10
SC-5	9/18/14	<0.036	0.630	29	42
ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D. ALL SAMPLES ARE COMPOSITE SAMPLES.					

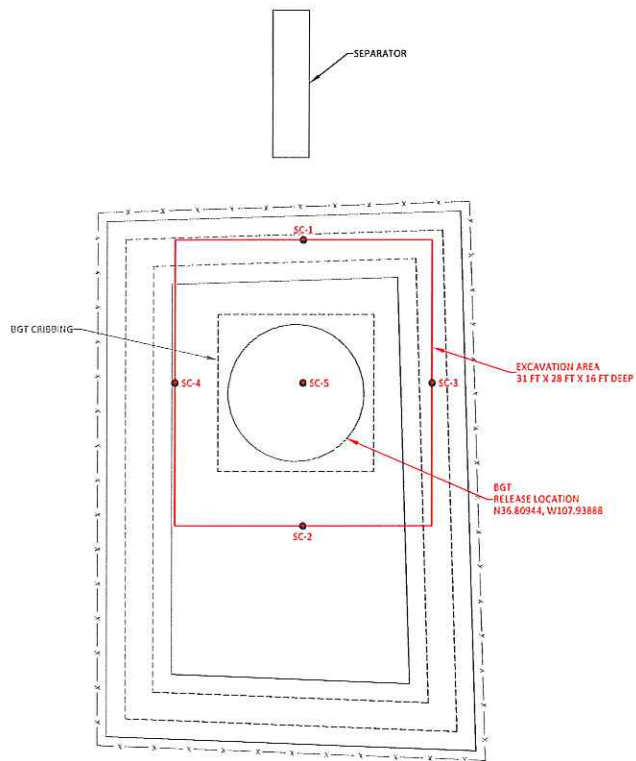


FIGURE 4

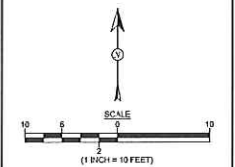
FINAL EXCAVATION SAMPLE  
LOCATIONS AND RESULTS  
SEPTEMBER 2014  
ConocoPhillips  
NYE SRC #14  
N36.80944, W107.93888  
SAN JUAN COUNTY, NEW MEXICO  
N36.80949, W107.93913



DRAWN BY: S. Glasses	DATE DRAWN: September 18, 2014
REVISIONS BY: C. Lameman	DATE REVISED: September 18, 2014
CHECKED BY: E. Skyles	DATE CHECKED: September 18, 2014
APPROVED BY: E. McNally	DATE APPROVED: September 18, 2014

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- X— FENCE



## AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Nye SRC #14

Date: 7/28/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 4.5'	7/28/2014	14:20	23.4	1,058	15:19	20.0	1	SAH
TH-1 @ 7'	7/28/2014	16:20	55.4	>2,500	16:47	20.0	1	SAH
TH-1 @ 15'	7/28/2014	17:35	1,117	1,673	17:58	20.0	1	SAH
TH-2 @ 4.5'	7/28/2014	14:22	0.5	1,481	15:22	20.0	1	SAH
TH-2 @ 7'	7/28/2014	16:00	0.0	103	16:15	20.0	1	SAH
TH-3 @ 4.5'	7/28/2014	14:24	0.7	522	15:25	20.0	1	SAH
TH-3 @ 7'	7/28/2014	16:22	0.1	81.0	16:50	20.0	1	SAH
TH-4 @ 4.5'	7/28/2014	14:26	1.0	174	15:27	20.0	1	SAH
TH-4 @ 7'	7/28/2014	16:24	21.6	1,891	16:53	20.0	1	SAH
TH-4 @ 10'	7/28/2014	17:30	3.2	1,127	17:55	20.0	1	SAH
TH-5 @ 4.5'	7/28/2014	14:28	1.1	397	15:30	20.0	1	SAH
TH-5 @ 7'	7/28/2014	16:26	0.6	36.2	16:56	20.0	1	SAH



Sample ID	Collection Date	Collection Time	OVN (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
-----------	-----------------	-----------------	-----------	--------------------	-------------------------	-----------------	----	-----------------------

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Stephanie A. Hinds*

# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Nye SRC #14

Date: 8/11/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVN (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 5'	8/11/2014	9:41	0.2	22.6	10:20	20.0	1	EMS
SB-1 @ 7'	8/11/2014	9:45	0.1	28.2	10:23	20.0	1	EMS
SB-1 @ 12.5'	8/11/2014	11:14	0.7	48.9	11:22	20.0	1	EMS
SB-2 @ 5'	8/11/2014	10:23	1.2	26.8	10:48	20.0	1	EMS
SB-2 @ 7'	8/11/2014	10:30	0.7	37.9	10:51	20.0	1	EMS
SB-3 @ 5'	8/11/2014	10:05	0.3	33.7	10:53	20.0	1	EMS
SB-3 @ 7'	8/11/2014	10:10	0.2	Not Analyzed for TPH				
SB-4 @ 5'	8/11/2014	9:52	0.1	Not Analyzed for TPH				
SB-4 @ 7'	8/11/2014	9:57	0.3	26.8	10:26	20.0	1	EMS
SB-4 @ 12.5'	8/11/2014	11:38	0.1	28.2	11:55	20.0	1	EMS

DF Dilution Factor  
 NA Not Analyzed  
 PQL Practical Quantitation Limit

Total Petroleum Hydrocarbons - USEPA 418.1



Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
-----------	-----------------	-----------------	-----------	--------------------	-------------------------	-----------------	----	-----------------------

\*Field TPH concentrations recorded may be below PQL.

Analyst:

*Enik Sh L*

## AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Nye SRC #14

Date: 9/18/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	9/18/2014	10:50	103	103	11:23	20.0	1	EMS
SC-2	9/18/2014	9:27	19.5	32.8	10:35	20.0	1	EMS
SC-3	9/18/2014	10:55	12.6	55.1	11:25	20.0	1	EMS
SC-4	9/18/2014	9:35	34.8	44.0	10:37	20.0	1	EMS
SC-5	9/18/2014	9:29	1,025	80.3	10:33	20.0	1	EMS

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Emil SkL*





*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

July 31, 2014

Debbie Watson

Animas Environmental  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: CoP Nye SRC #14

OrderNo.: 1407D67

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/30/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1407D67

Date Reported: 7/31/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: TH-1 @ 15'

Project: CoP Nye SRC #14

Collection Date: 7/28/2014 5:35:00 PM

Lab ID: 1407D67-001

Matrix: MEOH (SOIL)

Received Date: 7/30/2014 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	880	100		mg/Kg	10	7/30/2014 1:35:02 PM	14492
Surr: DNOP	0	57.9-140	S	%REC	10	7/30/2014 1:35:02 PM	14492
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	580	15		mg/Kg	5	7/30/2014 2:07:54 PM	R20250
Surr: BFB	1700	80-120	S	%REC	5	7/30/2014 2:07:54 PM	R20250
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.076		mg/Kg	5	7/30/2014 2:07:54 PM	R20250
Toluene	ND	0.15		mg/Kg	5	7/30/2014 2:07:54 PM	R20250
Ethylbenzene	ND	0.15		mg/Kg	5	7/30/2014 2:07:54 PM	R20250
Xylenes, Total	10	0.30		mg/Kg	5	7/30/2014 2:07:54 PM	R20250
Surr: 4-Bromofluorobenzene	248	80-120	S	%REC	5	7/30/2014 2:07:54 PM	R20250

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1407D67

31-Jul-14

Client: Animas Environmental

Project: CoP Nye SRC #14

Sample ID	MB-14492	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	14492	RunNo:	20232					
Prep Date:	7/30/2014	Analysis Date:	7/30/2014	SeqNo:	588345	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		102	57.9	140			

Sample ID	LCS-14492	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	14492	RunNo:	20232					
Prep Date:	7/30/2014	Analysis Date:	7/30/2014	SeqNo:	588346	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.1	68.6	130			
Surr: DNOP	4.7		5.000		94.8	57.9	140			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1407D67

31-Jul-14

Client: Animas Environmental

Project: CoP Nye SRC #14

Sample ID	MB-14473	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	14473	RunNo:	20250					
Prep Date:	7/29/2014	Analysis Date:	7/30/2014	SeqNo:	588715	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.0	80	120			

Sample ID	LCS-14473	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	14473	RunNo:	20250					
Prep Date:	7/29/2014	Analysis Date:	7/30/2014	SeqNo:	588716	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		97.8	80	120			

Sample ID	MB-14473 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R20250	RunNo:	20250					
Prep Date:		Analysis Date:	7/30/2014	SeqNo:	588721	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.0	80	120			

Sample ID	LCS-14473 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R20250	RunNo:	20250					
Prep Date:		Analysis Date:	7/30/2014	SeqNo:	588722	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.0	71.7	134			
Surr: BFB	980		1000		97.8	80	120			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1407D67

31-Jul-14

Client: Animas Environmental

Project: CoP Nye SRC #14

Sample ID	MB-14473 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R20250		RunNo:	20250			
Prep Date:			Analysis Date:	7/30/2014		SeqNo:	588740		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-14473 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R20250		RunNo:	20250			
Prep Date:			Analysis Date:	7/30/2014		SeqNo:	588741		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.050	1.000	0	86.8	80	120			
Toluene	0.86	0.050	1.000	0	86.1	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

### Qualifiers:

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| 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               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



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: Animas Environmental

Work Order Number: 1407D67

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/30/2014 6:45:00 AM

Completed By: Lindsay Mangin

7/30/2014 7:35:41 AM

Reviewed By:

At 07/30/14

### 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 ☐ # of preserved bottles checked for pH: ( $<2$  or  $>12$  unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			







*Hall Environmental Analysis Laboratory*  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 25, 2014

Emilee Skyles

Animas Environmental

624 East Comanche

Farmington, NM 87401

TEL: (505) 564-2281

FAX

RE: CoP NYE SRC #14

OrderNo.: 1409946

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/19/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 1409946

Date Reported: 9/25/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: CoP NYE SRC #14

Collection Date: 9/18/2014 10:50:00 AM

Lab ID: 1409946-001

Matrix: SOIL

Received Date: 9/19/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	73	10		mg/Kg	1	9/19/2014 12:10:58 PM	15397
Surr: DNOP	89.1	57.9-140		%REC	1	9/19/2014 12:10:58 PM	15397
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/19/2014 11:16:33 AM	R21331
Surr: BFB	130	80-120	S	%REC	1	9/19/2014 11:16:33 AM	R21331
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.038		mg/Kg	1	9/19/2014 11:16:33 AM	R21331
Toluene	ND	0.038		mg/Kg	1	9/19/2014 11:16:33 AM	R21331
Ethylbenzene	ND	0.038		mg/Kg	1	9/19/2014 11:16:33 AM	R21331
Xylenes, Total	ND	0.077		mg/Kg	1	9/19/2014 11:16:33 AM	R21331
Surr: 4-Bromofluorobenzene	98.5	80-120		%REC	1	9/19/2014 11:16:33 AM	R21331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 11
	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	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			



## Analytical Report

Lab Order 1409946

Date Reported: 9/25/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: CoP NYE SRC #14

Collection Date: 9/18/2014 9:27:00 AM

Lab ID: 1409946-002

Matrix: SOIL

Received Date: 9/19/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/23/2014 2:33:06 PM	15397
Surr: DNOP	100	57.9-140		%REC	1	9/23/2014 2:33:06 PM	15397
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/23/2014 9:40:51 PM	15402
Surr: BFB	94.5	80-120		%REC	1	9/23/2014 9:40:51 PM	15402
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	9/23/2014 9:40:51 PM	15402
Toluene	ND	0.048		mg/Kg	1	9/23/2014 9:40:51 PM	15402
Ethylbenzene	ND	0.048		mg/Kg	1	9/23/2014 9:40:51 PM	15402
Xylenes, Total	ND	0.096		mg/Kg	1	9/23/2014 9:40:51 PM	15402
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	9/23/2014 9:40:51 PM	15402

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

## Analytical Report

Lab Order 1409946

Date Reported: 9/25/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: CoP NYE SRC #14

Collection Date: 9/18/2014 10:55:00 AM

Lab ID: 1409946-003

Matrix: SOIL

Received Date: 9/19/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/23/2014 3:03:07 PM	15397
Surr: DNOP	99.9	57.9-140		%REC	1	9/23/2014 3:03:07 PM	15397
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/23/2014 10:09:29 PM	15402
Surr: BFB	95.6	80-120		%REC	1	9/23/2014 10:09:29 PM	15402
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	9/23/2014 10:09:29 PM	15402
Toluene	ND	0.049		mg/Kg	1	9/23/2014 10:09:29 PM	15402
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2014 10:09:29 PM	15402
Xylenes, Total	ND	0.097		mg/Kg	1	9/23/2014 10:09:29 PM	15402
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	9/23/2014 10:09:29 PM	15402

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 11
	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	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

## Analytical Report

Lab Order 1409946

Date Reported: 9/25/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: CoP NYE SRC #14

Collection Date: 9/18/2014 9:35:00 AM

Lab ID: 1409946-004

Matrix: SOIL

Received Date: 9/19/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/23/2014 3:33:22 PM	15397
Surr: DNOP	95.2	57.9-140		%REC	1	9/23/2014 3:33:22 PM	15397
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/23/2014 10:38:07 PM	15402
Surr: BFB	94.7	80-120		%REC	1	9/23/2014 10:38:07 PM	15402
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	9/23/2014 10:38:07 PM	15402
Toluene	ND	0.047		mg/Kg	1	9/23/2014 10:38:07 PM	15402
Ethylbenzene	ND	0.047		mg/Kg	1	9/23/2014 10:38:07 PM	15402
Xylenes, Total	ND	0.094		mg/Kg	1	9/23/2014 10:38:07 PM	15402
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	9/23/2014 10:38:07 PM	15402

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



## Analytical Report

Lab Order 1409946

Date Reported: 9/25/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: CoP NYE SRC #14

Collection Date: 9/18/2014 9:29:00 AM

Lab ID: 1409946-005

Matrix: SOIL

Received Date: 9/19/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	42	10		mg/Kg	1	9/19/2014 12:32:37 PM	15397
Surr: DNOP	95.0	57.9-140		%REC	1	9/19/2014 12:32:37 PM	15397
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	29	3.6		mg/Kg	1	9/19/2014 11:45:08 AM	R21331
Surr: BFB	431	80-120	S	%REC	1	9/19/2014 11:45:08 AM	R21331
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.036		mg/Kg	1	9/19/2014 11:45:08 AM	R21331
Toluene	0.060	0.036		mg/Kg	1	9/19/2014 11:45:08 AM	R21331
Ethylbenzene	ND	0.036		mg/Kg	1	9/19/2014 11:45:08 AM	R21331
Xylenes, Total	0.57	0.072		mg/Kg	1	9/19/2014 11:45:08 AM	R21331
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	9/19/2014 11:45:08 AM	R21331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409946

25-Sep-14

Client: Animas Environmental

Project: CoP NYE SRC #14

Sample ID	MB-15363	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15363	RunNo:	21269					
Prep Date:	9/18/2014	Analysis Date:	9/18/2014	SeqNo:	620601	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		100	57.9	140			

Sample ID	LCS-15363	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15363	RunNo:	21269					
Prep Date:	9/18/2014	Analysis Date:	9/18/2014	SeqNo:	620602	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		104	57.9	140			

Sample ID	MB-15397	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15397	RunNo:	21309					
Prep Date:	9/19/2014	Analysis Date:	9/19/2014	SeqNo:	622102	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.2	57.9	140			

Sample ID	LCS-15397	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15397	RunNo:	21309					
Prep Date:	9/19/2014	Analysis Date:	9/19/2014	SeqNo:	622103	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.9	68.6	130			
Surr: DNOP	4.3		5.000		85.6	57.9	140			

Sample ID	LCS-15369	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15369	RunNo:	21309					
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo:	622110	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	57.9	140			

Sample ID	MB-15369	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15369	RunNo:	21309					
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo:	622115	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.3	57.9	140			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409946

25-Sep-14

Client: Animas Environmental

Project: CoP NYE SRC #14

Sample ID	1409878-002AMS	SampType: MS	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	BatchQC	Batch ID:	15369	RunNo: 21309						
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo: 623164		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		4.975		103	57.9	140			

Sample ID	1409878-002AMSD	SampType: MSD	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	BatchQC	Batch ID:	15369	RunNo: 21309						
Prep Date:	9/18/2014	Analysis Date:	9/19/2014	SeqNo: 623165		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.1		4.955		143	57.9	140	0	0	S

Sample ID	1409854-001AMS	SampType: MS	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	BatchQC	Batch ID:	15363	RunNo: 21369						
Prep Date:	9/18/2014	Analysis Date:	9/22/2014	SeqNo: 624223			Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		4.931		90.7	57.9	140			

Sample ID	1409854-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	BatchQC	Batch ID:	15363	RunNo: 21369						
Prep Date:	9/18/2014	Analysis Date:	9/22/2014	SeqNo: 624224		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		4.970		96.5	57.9	140	0	0	

Sample ID	1409946-002AMS	SampType: MS	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	SC-2	Batch ID:	15397	RunNo: 21369						
Prep Date:	9/19/2014	Analysis Date:	9/23/2014	SeqNo: 624251		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.9	49.65	0	115	40.1	152			
Surr: DNOP	5.0		4.965		99.8	57.9	140			

Sample ID	1409946-002AMSD	SampType: MSD	TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID:	SC-2	Batch ID:	15397	RunNo: 21369						
Prep Date:	9/19/2014	Analysis Date:	9/23/2014	SeqNo: 624424		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.9	49.70	0	109	40.1	152	4.80	32.1	
Surr: DNOP	4.8		4.970		97.5	57.9	140	0	0	

### Qualifiers:

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| 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               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |