

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

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

Form C-144
Revised June 6, 2013

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

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

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

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

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

1.
Operator: Burlington Resources Oil & Gas Company, LP OGRID #: 14538
Address: PO BOX 4289, Farmington, NM 87499
Facility or well name: SAN JUAN 28-6 UNIT 155N
API Number: 30-039-27601 OCD Permit Number: _____
U/L or Qtr/Qtr E Section 28 Township 28N Range 6W County: Rio Arriba
Center of Proposed Design: Latitude 36.633196 °N Longitude -107.481343 °W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

OIL CONS. DIV DIST. 3

JAN 31 2017

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 _____ mil ☐ HDPE ☐ PVC ☒ Other UNSPECIFIED

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

5.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)
☐ Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☐ Alternate. Please specify _____

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

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

7. **Signs:** Subsection C of 19.15.17.11 NMAC

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

8. **Variances and Exceptions:**

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

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

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

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

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

General siting

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

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

☐ Yes ☐ No
☒ NA

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

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

☐ Yes ☐ No
☒ NA

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

- FEMA map

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).

☐ Yes ☒ No

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

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

☐ Yes ☒ No

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

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.)

☐ Yes ☐ No

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

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

☐ Yes ☐ No

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

☐ Yes ☐ No

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

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 H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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: _____ Approval Date: 2/2/2017

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: 8/17/2015

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) Crystal Walker Title: Regulatory Coordinator

Signature:  Date: 1/26/2017

e-mail address: crystal.walker@cop.com Telephone: (505) 326-9837

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

Lease Name: San Juan 28-6 Unit 155N
API No.: 30-039-27601

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 is attached.

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 sent via email. (See Attached) (Well located on Federal Land, certified mail is not required for Federal Land per BLM/OCD MOU.)

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 be 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)**

Walker, Crystal

From: White, Arleen R
Sent: Friday, August 14, 2015 8:01 AM
To: Cory Smith; Brandon Powell; 'Mark Kelly'
Cc: SJBW E-Team; GRP:SJBW Regulatory; Munkres, Travis W
Subject: SAN JUAN 28-6 UNIT 155N - 3003927601 - BGT CLOSURE 72 HR NOTIFICATION

Anticipated Start Date: 8/17/15

The subject well has a below-grade tank that will begin the closure process between 72 hours and one week from this notification. Please contact me at any time if you have any questions or concerns.

Well Name: San Juan 28-6 Unit 155N

API#: 30-039-27601

Location: UL E, Sec. 28, T28N, R06W

Footages: 2420 ' FNL & 80' FWL

Operator: BR **Surface Owner:** BLM



Arleen White
Staff Regulatory Technician
San Juan Business Unit
Ph: (505)326-9517
Cell: (505) 215-3985
arleen.r.white@conocophillips.com

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

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 Burlington Resources Oil & Gas Company	Contact Lisa Hunter	
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607	
Facility Name: San Juan 28-6 Unit 155N	Facility Type: Gas	
Surface Owner: BLM	Mineral Owner: SF-079050-C	API No. 3003927601

LOCATION OF RELEASE

Unit Letter E	Section 28	Township 28N	Range 06W	Feet from the 2420'	North/South Line FNL	Feet from the 80'	East/West Line FWL	County Rio Arriba
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Latitude 36.63311 Longitude -107.48151

NATURE OF RELEASE

Type of Release Hydrocarbon	Volume of Release 186 bbls	Volume Recovered 0
Source of Release corroded hole in production tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 1/27/2015 @ 10:15 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shari Ketcham(BLM) and Cory Smith (OCD) on 1/27/2015 @ 3:00pm	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

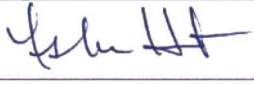

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* ☐ Weld on production tank was found leaking on the 2" plugged coupling located below load line. The drain line to pit was open to drain remaining fluid from tank. Well was shut in.

Describe Area Affected and Cleanup Action Taken.*

ConocoPhillips excavated an area 64 ft x 71 ft x 19 ft deep terminating at sandstone in January 2015. 2100 cy of impacted soil was removed for offsite disposal. Sidewall and bottom samples were laboratory analyzed for BTEX and TPH on February 17, 2015. Sidewall samples were below NMOCD screening levels (50 ppm BTEX/100ppm TPH), however the bottom sample was in excess of the standards for both BTEX and TPH. On April 30, 2015, a bottom 5-point composite resample was analyzed below the NMOCD standards. February 12, 2016, six discriminate base samples at a 6-8 inch depth were collected from the base per BLM request, with the highest lab results at 350ppm TPH and .31ppm BTEX. Additional site assessment was required by BLM, and in April 2016 six borings were cored into the sandstone from the bottom of the 19 ft deep excavation. The screening levels were achieved for total BTEX (<50 mg/kg) and total TPH (<100 mg/kg) in five of the six borings within 5 to 15 ft (24 to 39 ft below site grade). One boring achieved below standard concentrations at a total depth of 59 ft below site grade (40 ft from bottom of excavation). In May 2016, the excavation was backfilled and additional soil borings were advanced in the southwest corner of the former excavation to delineate lateral extent in the area of the deep core hole. In June 2016, five additional borings were drilled/cored to depths of from 32 to 42.5 feet below site grade. Bottom samples from these borings were laboratory analyzed for BTEX and TPH and all constituents were below NMOCD screening levels. Groundwater is estimated based on local well data to be in excess of 200 ft below site grade. COPC believes remediation has reached the maximum depth and horizontal extent practicable & any residual contaminates do not pose a present or foreseeable threat or an environmental risk to fresh water, humans or animals. No further action is recommended for the site.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date:	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 09/13/2016	Phone: (505) 258-1607	NCS150724975

* Attach Additional Sheets If Necessary



July 24, 2015

Lindsay Dumas
ConocoPhillips
San Juan Business Unit
(505) 599-4089

Via electronic mail to:
SJBUE-Team@ConocoPhillips.com

**RE: Final Excavation Report
San Juan 28-6 #155N
Rio Arriba County, New Mexico**

Dear Ms. Dumas:

On February 17 and April 30, 2015, Animas Environmental Services, LLC (AES) completed an environmental clearance of the final excavation limits at the ConocoPhillips (COPC) San Juan 28-6 #155N, located in Rio Arriba County, New Mexico. The 186 barrel (bbl) condensate release resulted from corrosion of the production tank. The final excavation was completed by COPC contractors prior to AES' arrival at the location on April 30, 2015.

1.0 Site Information

1.1 Location

Site Name – San Juan 30-6 #155N

Location – SW¼ NW¼, Section 28, T27N, R6W, Rio Arriba County, New Mexico

Well Head Latitude/Longitude – N36.63291 and W107.48120, respectively

Release Location Latitude/Longitude – N36.63311 and W107.48151, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, February 2015

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

1911 Main, Ste 280
Durango, CO 81301
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:** Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be greater than 100 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Approximately 110 feet to the north is an unnamed wash that drains into Encierro Canyon wash and ultimately to the San Juan River. (20 points)

1.3 Assessment

AES was initially contacted by Lindsay Dumas of COPC on January 27, 2015, and on February 17, 2015, Stephanie Hinds and Dylan Davis of AES completed excavation field work. 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 64 feet by 71 feet by 19 feet in depth. The depth of the excavation was limited due to a confining sandstone unit at 19 feet bgs. A final confirmation soil sample (SC-5 (2)) was collected from the base on April 30, 2015, following application of potassium permanganate. Sample locations and final excavation extents are presented on Figure 3.

2.0 Soil Sampling

A total of 6 composite samples (SC-1 through SC-5 and SC-5 (2)) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). All composite samples 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), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015D.

2.3 Field and Laboratory Analytical Results

On February 17, 2015, excavation field screening results for VOCs via OVM ranged from 2.5 ppm in SC-4 up to 2,536 ppm in SC-5. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-1 through SC-4 up to greater than 2,500 mg/kg in SC-5. On April 30, 2015, excavation field screening results from SC-5 (2) for VOCs via OVM were 38.5 ppm, and field TPH concentrations were 38.8 mg/kg. Results are included below in Table 1 and on Figure 3. The AES Field Sampling Reports are attached.

Table 1. Soil Field VOCs and TPH Results
San Juan 28-6 #155N Final Excavation, February and April 2015

<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>
SC-1	2/17/15	1 to 19	74.2	<20.0
SC-2	2/17/15	1 to 19	48.0	<20.0
SC-3	2/17/15	1 to 19	20.2	<20.0
SC-4	2/17/15	1 to 19	2.5	<20.0
SC-5	2/17/15	19	2,536	>2,500
SC-5 (2)	4/30/15	19	38.5	38.8

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

Laboratory analyses were used to confirm field sampling results from the final excavation extents. Benzene and total BTEX concentrations in all final samples were reported below laboratory detection limits. Final TPH concentrations as GRO/DRO/MRO were reported below laboratory detection limits in all samples, with the exception of SC-5 (2) which was reported at 20 mg/kg. Results are presented in Table 2 and on Figure 3. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
San Juan 28-6 #155N Final Excavation, February and April 2015

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)
<i>NMOCD Action Level*</i>			10	50		100	
SC-1	2/17/15	1 to 19	<0.032	<0.160	<3.2	<10	<50
SC-2	2/17/15	1 to 19	<0.038	<0.190	<3.8	<10	<50
SC-3	2/17/15	1 to 19	<0.044	<0.220	<4.4	<10	<50
SC-4	2/17/15	1 to 19	<0.031	<0.155	<3.1	<10	<50
SC-5	2/17/15	19	7.6	434.6	3,800	640	<50
SC-5 (2)	4/30/15	19	<0.038	<0.190	<3.8	20	<49

*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 February 17 and April 30, 2015, AES completed final clearance of the excavation area associated with petroleum contaminated soils at the San Juan 28-6 #155N. 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.

On February 17, 2015, final excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC and TPH concentrations were below applicable NMOCD action levels for the final walls and base of the excavation, with the exception of SC-5 (base) which had a VOC concentration of 2,536 ppm and a TPH concentration greater than 2,500 mg/kg. Laboratory analytical results reported benzene, total BTEX, and TPH concentrations in SC-1 through SC-4 below

NMOCD action levels, while SC-5 remained above the applicable NMOCD action levels. An additional confirmation sample (SC-5 (2)) was collected on April 30, 2015. Field sampling and laboratory results for SC-5 (2) reported VOC, benzene, total BTEX and TPH concentrations below applicable NMOCD action levels for the base of the excavation.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-6 #155N, VOC, 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.

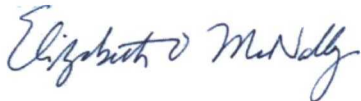
Sincerely,



David J. Reese
Environmental Scientist



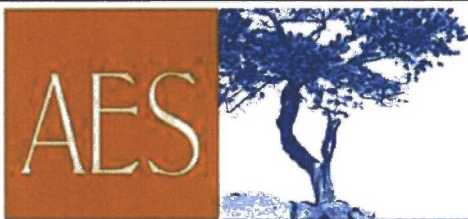
Emilee Skyles
Geologist/Project Lead



Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, February 2015
- Figure 3. Final Excavation Sample Locations and Results, February and April 2015
- AES Field Sampling Report 021715
- AES Field Sampling Report 043015
- Hall Laboratory Analytical Report 1502720
- Hall Laboratory Analytical Report 1505007



Animas Environmental Services, LLC

DRAWN BY:

S. Glasses

DATE DRAWN:

February 25, 2015

REVISIONS BY:

C. Lameman

DATE REVISED:

February 25, 2015

CHECKED BY:

E. Skyles

DATE CHECKED:

February 25, 2015

APPROVED BY:

E. McNally

DATE APPROVED:

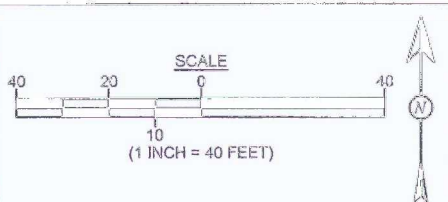
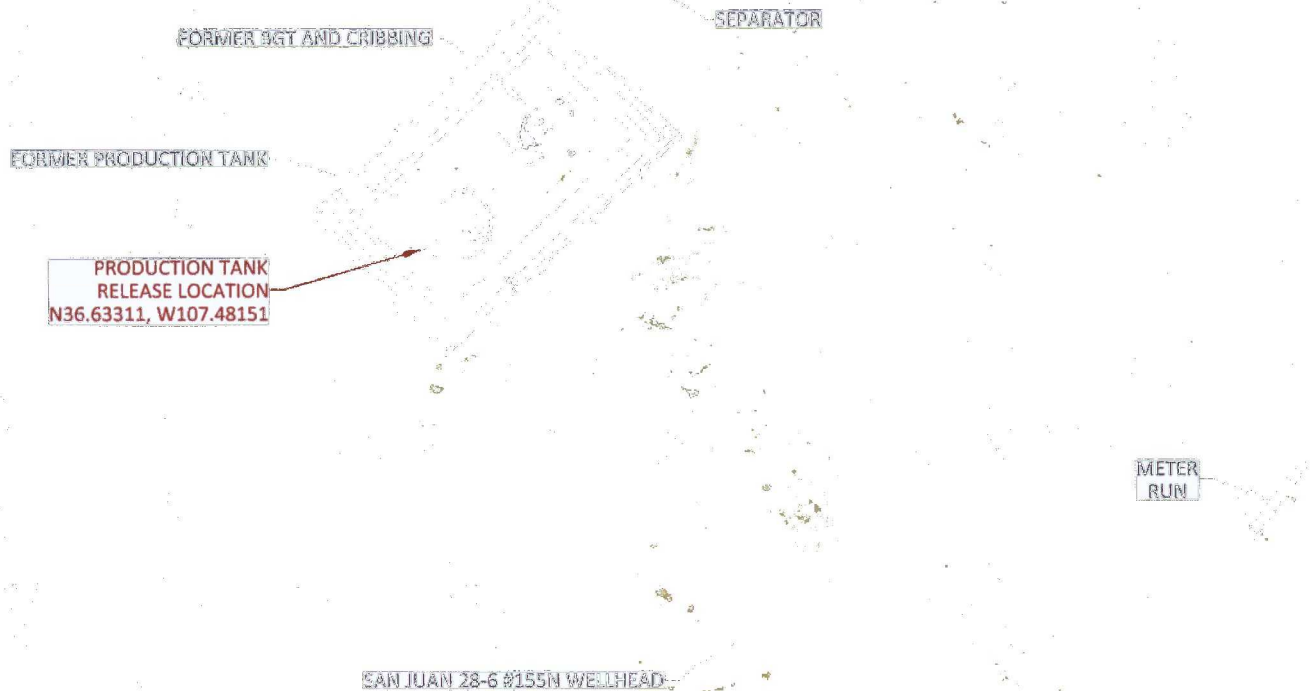
February 25, 2015

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP FEBRUARY 2015

ConocoPhillips
SAN JUAN 28-6 #155N
SW¼ NW¼, SECTION 28, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.63291, W107.48120

LEGEND	
	SECONDARY CONTAINMENT
	BERM
	FENCE



AERIAL SOURCE: © 2014 GOOGLE EARTH PRO, AERIAL DATE: MAY 2, 2013

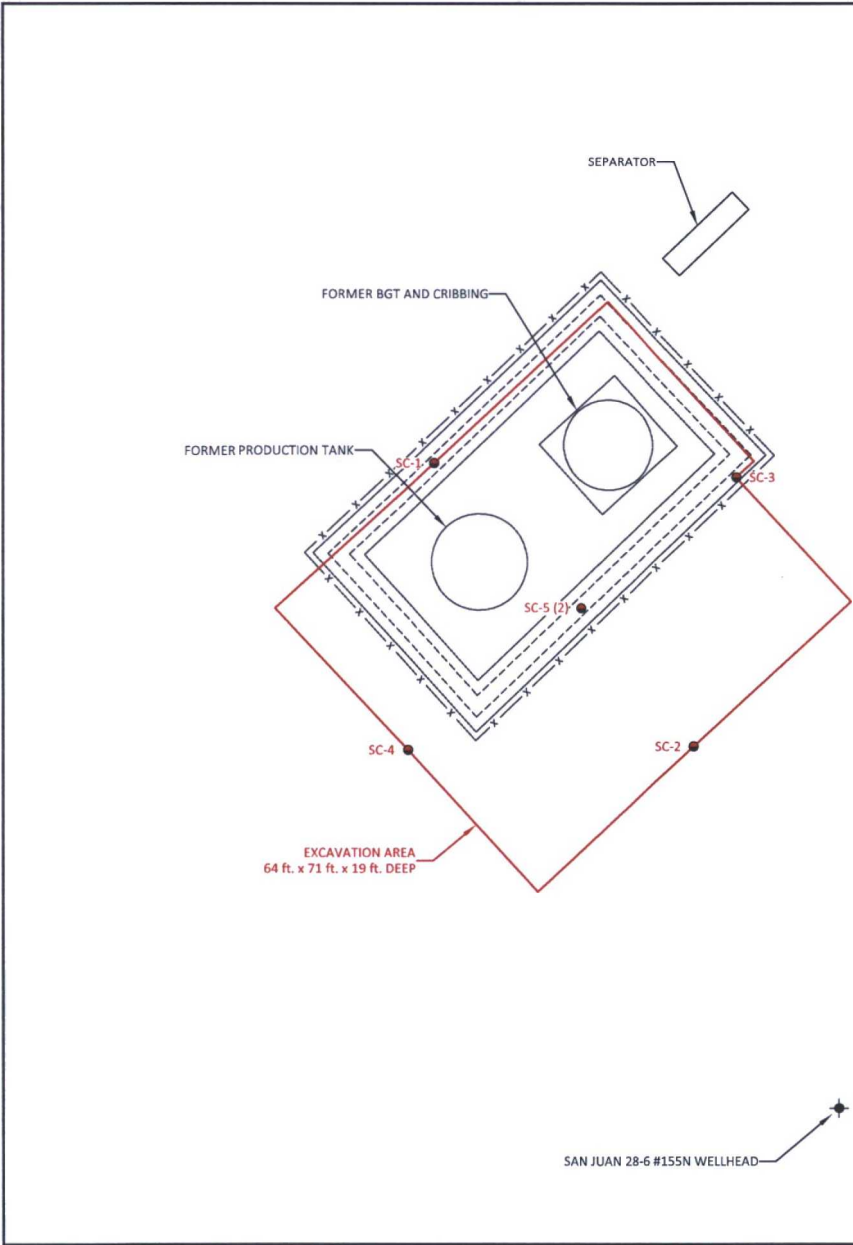


Animas Environmental Services, LLC

DRAWN BY: S. Glasses	DATE DRAWN: February 27, 2015
REVISIONS BY: C. Lameman	DATE REVISED: February 27, 2015
CHECKED BY: E. Skyles	DATE CHECKED: February 27, 2015
APPROVED BY: E. McNally	DATE APPROVED: February 27, 2015

FIGURE 2

AERIAL SITE MAP
FEBRUARY 2015
ConocoPhillips
SAN JUAN 28-6 #155N
SW¼ NW¼, SECTION 28, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.63291, W107.48120



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	2/17/15	1 to 19	74.2	<20.0
SC-2	2/17/15	1 to 19	48.0	<20.0
SC-3	2/17/15	1 to 19	20.2	<20.0
SC-4	2/17/15	1 to 19	2.5	<20.0
SC-5 (2)	4/30/15	19	38.5	38.8

ALL SAMPLES ARE COMPOSITE SAMPLES.

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100	
SC-1	2/17/15	1 to 19	<0.032	<0.160	<3.2	<10
SC-2	2/17/15	1 to 19	<0.038	<0.190	<3.8	<10
SC-3	2/17/15	1 to 19	<0.044	<0.220	<4.4	<10
SC-4	2/17/15	1 to 19	<0.031	<0.155	<3.1	<9.9
SC-5 (2)	4/30/15	19	<0.038	<0.190	<3.8	20

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.

FIGURE 3

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
FEBRUARY AND APRIL 2015
ConocoPhillips
SAN JUAN 28-6 #155N
SW¼ NW¼, SECTION 28, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.63291, W107.48120

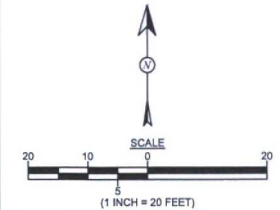


Animas Environmental Services, LLC

DRAWN BY: S. Glasses	DATE DRAWN: February 18, 2015
REVISIONS BY: C. Lameman	DATE REVISED: May 6, 2015
CHECKED BY: E. Skyles	DATE CHECKED: May 6, 2015
APPROVED BY: E. McNally	DATE APPROVED: May 6, 2015

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x — FENCE



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 28-6 #155N

Date: 2/17/2015

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	2/17/2015	14:10	North Wall	74.2	0.00	14:30	20.0	1	SAH
SC-2	2/17/2015	12:30	South Wall	48.0	0.00	13:27	20.0	1	SAH
SC-3	2/17/2015	12:35	East Wall	20.2	0.00	13:31	20.0	1	SAH
SC-4	2/17/2015	14:00	West Wall	2.5	0.00	14:22	20.0	1	SAH
SC-5	2/17/2015	12:45	Base	2,536	>2,500	13:14	20.0	1	SAH

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

**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: San Juan 28-6 #155N

Date: 4/30/2015

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-5 (2)	4/30/2015	9:20	Base	38.5	38.8	9:55	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



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

February 20, 2015

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COP SJ 28-6 #155N

OrderNo.: 1502720

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/18/2015 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 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", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

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

Lab Order 1502720

Date Reported: 2/20/2015

CLIENT: Animas Environmental**Client Sample ID:** SC-1**Project:** COP SJ 28-6 #155N**Collection Date:** 2/17/2015 2:10:00 PM**Lab ID:** 1502720-001**Matrix:** MEOH (SOIL)**Received Date:** 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 10:22:52 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 10:22:52 AM	17795
Surr: DNOP	99.8	63.5-128		%REC	1	2/18/2015 10:22:52 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Surr: BFB	99.3	80-120		%REC	1	2/18/2015 10:19:26 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Toluene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Ethylbenzene	ND	0.032		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Xylenes, Total	ND	0.064		mg/Kg	1	2/18/2015 10:19:26 AM	R24377
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	2/18/2015 10:19:26 AM	R24377

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 Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1502720**Date Reported: **2/20/2015****CLIENT:** Animas Environmental**Client Sample ID:** SC-2**Project:** COP SJ 28-6 #155N**Collection Date:** 2/17/2015 12:30:00 PM**Lab ID:** 1502720-002**Matrix:** MEOH (SOIL)**Received Date:** 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 10:49:56 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 10:49:56 AM	17795
Surr: DNOP	103	63.5-128		%REC	1	2/18/2015 10:49:56 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Surr: BFB	94.2	80-120		%REC	1	2/18/2015 10:48:11 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Toluene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Ethylbenzene	ND	0.038		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Xylenes, Total	ND	0.076		mg/Kg	1	2/18/2015 10:48:11 AM	R24377
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	2/18/2015 10:48:11 AM	R24377

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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1502720**Date Reported: **2/20/2015****CLIENT:** Animas Environmental**Client Sample ID:** SC-3**Project:** COP SJ 28-6 #155N**Collection Date:** 2/17/2015 12:35:00 PM**Lab ID:** 1502720-003**Matrix:** MEOH (SOIL)**Received Date:** 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/18/2015 11:16:47 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 11:16:47 AM	17795
Surr: DNOP	105	63.5-128		%REC	1	2/18/2015 11:16:47 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Surr: BFB	91.9	80-120		%REC	1	2/18/2015 11:16:53 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Toluene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Ethylbenzene	ND	0.044		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Xylenes, Total	ND	0.088		mg/Kg	1	2/18/2015 11:16:53 AM	R24377
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	2/18/2015 11:16:53 AM	R24377

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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 2:00:00 PM

Lab ID: 1502720-004

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/18/2015 11:43:46 AM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 11:43:46 AM	17795
Surr: DNOP	110	63.5-128		%REC	1	2/18/2015 11:43:46 AM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Surr: BFB	93.0	80-120		%REC	1	2/18/2015 11:45:37 AM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Toluene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Ethylbenzene	ND	0.031		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Xylenes, Total	ND	0.062		mg/Kg	1	2/18/2015 11:45:37 AM	R24377
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	2/18/2015 11:45:37 AM	R24377

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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1502720

Date Reported: 2/20/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: COP SJ 28-6 #155N

Collection Date: 2/17/2015 12:45:00 PM

Lab ID: 1502720-005

Matrix: MEOH (SOIL)

Received Date: 2/18/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	640	10		mg/Kg	1	2/18/2015 12:11:05 PM	17795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/18/2015 12:11:05 PM	17795
Surr: DNOP	110	63.5-128		%REC	1	2/18/2015 12:11:05 PM	17795
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3800	390		mg/Kg	100	2/18/2015 12:14:25 PM	R24377
Surr: BFB	163	80-120	S	%REC	100	2/18/2015 12:14:25 PM	R24377
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	7.6	0.39		mg/Kg	10	2/18/2015 9:50:38 AM	R24377
Toluene	130	3.9		mg/Kg	100	2/19/2015 7:28:20 PM	17797
Ethylbenzene	27	0.39		mg/Kg	10	2/18/2015 9:50:38 AM	R24377
Xylenes, Total	270	7.8		mg/Kg	100	2/18/2015 12:14:25 PM	R24377
Surr: 4-Bromofluorobenzene	213	80-120	S	%REC	10	2/18/2015 9:50:38 AM	R24377

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 Not In Range
	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#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	MB-17795		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 17795		RunNo: 24371					
Prep Date:	2/18/2015		Analysis Date: 2/18/2015		SeqNo: 718279		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.1	63.5	128			

Sample ID	LCS-17795		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 17795		RunNo: 24371					
Prep Date:	2/18/2015		Analysis Date: 2/18/2015		SeqNo: 718280		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	96.5	67.8	130			
Surr: DNOP	4.6		5.000		91.0	63.5	128			

Sample ID	1502720-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1		Batch ID: 17795		RunNo: 24371					
Prep Date:	2/18/2015		Analysis Date: 2/18/2015		SeqNo: 718410		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.9	49.70	0	118	29.2	176			
Surr: DNOP	5.5		4.970		110	63.5	128			

Sample ID	1502720-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1		Batch ID: 17795		RunNo: 24371					
Prep Date:	2/18/2015		Analysis Date: 2/18/2015		SeqNo: 718411		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	9.8	49.16	0	118	29.2	176	0.697	23	
Surr: DNOP	5.6		4.916		115	63.5	128	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 Not In Range |
| 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#: 1502720

20-Feb-15

Client: Animas Environmental
Project: COP SJ 28-6 #155N

Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: R24377	RunNo: 24377								
Prep Date:	Analysis Date: 2/18/2015	SeqNo: 718563	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	910		1000		91.1	80	120			

Sample ID 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: R24377	RunNo: 24377								
Prep Date:	Analysis Date: 2/18/2015	SeqNo: 718564	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	64	130			
Surr: BFB	1000		1000		101	80	120			

Sample ID 1502720-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SC-1	Batch ID: R24377	RunNo: 24377								
Prep Date:	Analysis Date: 2/18/2015	SeqNo: 718567	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.2	15.94	2.794	91.5	47.9	144			
Surr: BFB	630		637.8		98.7	80	120			

Sample ID 1502720-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SC-1	Batch ID: R24377	RunNo: 24377								
Prep Date:	Analysis Date: 2/18/2015	SeqNo: 718568	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.2	15.94	2.794	92.1	47.9	144	0.512	29.9	
Surr: BFB	640		637.8		100	80	120	0	0	

Sample ID MB-17797	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 17797	RunNo: 24415								
Prep Date: 2/18/2015	Analysis Date: 2/19/2015	SeqNo: 719115	Units: %REC							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.3	80	120			

Sample ID LCS-17797	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 17797	RunNo: 24415								
Prep Date: 2/18/2015	Analysis Date: 2/19/2015	SeqNo: 719116	Units: %REC							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	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 Not In Range |
| 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#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718586	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		100	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718587	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	1.2	0.050	1.000	0	116	80	120			
Toluene	1.2	0.050	1.000	0	121	80	120			S
Ethylbenzene	1.2	0.050	1.000	0	116	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	1502720-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-2	Batch ID:	R24377	RunNo:	24377					
Prep Date:		Analysis Date:	2/18/2015	SeqNo:	718591	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	0.90	0.038	0.7599	0.01053	117	69.2	126			
Toluene	0.90	0.038	0.7599	0.03245	114	65.6	128			
Ethylbenzene	0.87	0.038	0.7599	0.009005	114	65.5	138			
Xylenes, Total	2.6	0.076	2.280	0.05980	111	63	139			
Surr: 4-Bromofluorobenzene	0.81		0.7599		107	80	120			

Sample ID	1502720-002AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-2		Batch ID:	R24377		RunNo:	24377				
Prep Date:			Analysis Date:	2/18/2015		SeqNo:	718592		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	0.84	0.038	0.7599	0.01053	109	69.2	126	6.99	18.5	
Toluene	0.83	0.038	0.7599	0.03245	105	65.6	128	7.60	20.6	
Ethylbenzene	0.84	0.038	0.7599	0.009005	109	65.5	138	4.37	20.1	
Xylenes, Total	2.5	0.076	2.280	0.05980	106	63	139	4.12	21.1	
Surr: 4-Bromofluorobenzene	0.81		0.7599		107	80	120	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 Not In Range |
| 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#: 1502720

20-Feb-15

Client: Animas Environmental

Project: COP SJ 28-6 #155N

Sample ID	MB-17797	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	17797		RunNo:	24415				
Prep Date:	2/18/2015	Analysis Date:	2/19/2015		SeqNo:	719143	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	0.050								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID	LCS-17797		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 17797		RunNo: 24415					
Prep Date:	2/18/2015		Analysis Date: 2/19/2015		SeqNo: 719144		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1.0	0.050	1.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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 Not In Range |
| 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: 1502720

RcptNo: 1

Received by/date:

km

02/15/15

Logged By: Ashley Gallegos

2/18/2015 8:00:00 AM

Ag

Completed By: Ashley Gallegos

2/18/2015 8:17:11 AM

Ag

Reviewed By:

CS

02/18/15

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°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental Services</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> <u>Rush same day</u>
Mailing Address: <u>604 W. Pimon</u>	Project Name: <u>CoP SJ 28-6 # 155-M-N</u>	
<u>Farmington, NM 87401</u>	Project #: <u>Per Stephanie Hinds</u>	
Phone #: <u>(505) 564-2281</u>	Project Manager: <u>E. Skyles</u>	
email or Fax#: <u>cSkyles@animasenvironmental.com</u>	Sampler: <u>S. Hinds</u>	
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____	Sample Temperature: <u>1.7</u>	
<input type="checkbox"/> EDD (Type) _____		

☐ Standard ☒ Rush same day

CoP SJ 28-6 # 155-A-N mg 02/18/15

Per Stephanie
Hinds

E. Skyles

On Ice: ☒ Yes ☐ No


Sample Temperature: 1.7

[illegible]

Date:	Time:	Relinquished by:
1/17/15	1644	Stephenie Alarido

Date:	Time:	Relinquished by:
2/17/15	1750	Christa Walz

Received by:	Date	Time
Christie White	2/17/15	1644

Received by:	Date	Time
	02/18/15	0800

Remarks: Bill to Conoco Phillips.

WD: 20605998

Activity Code: D15D

Supervisor: Mike Smith

user ID: KGARCIA

ordered by: Lindsay Pumas

Area : 24



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

July 14, 2015

Emilee Skyles
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: CoP San Juan 28-6 # 155N

OrderNo.: 1505007

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/1/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 04, 2015.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

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 1505007

Date Reported: 7/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5 (2)

Project: CoP San Juan 28-6 # 155N

Collection Date: 4/30/2015 9:20:00 AM

Lab ID: 1505007-001

Matrix: MEOH (SOIL)

Received Date: 5/1/2015 5:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2015 10:09:37 AM	19002
Surr: DNOP	85.3	57.9-140		%REC	1	5/1/2015 10:09:37 AM	19002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: BFB	95.0	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Toluene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Ethylbenzene	ND	0.038		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Xylenes, Total	ND	0.076		mg/Kg	1	5/1/2015 10:14:22 AM	R25904
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/1/2015 10:14:22 AM	R25904

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 Not In Range
	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#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	MB-19002	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	19002	RunNo	25902					
Prep Date	5/1/2015	Analysis Date	5/1/2015	SeqNo	767806	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.8	57.9	140			

Sample ID	LCS-19002	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	19002	RunNo	25902					
Prep Date	5/1/2015	Analysis Date	5/1/2015	SeqNo	767807	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.8	67.8	130			
Surr: DNOP	5.2		5.000		105	57.9	140			

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 Not In Range |
| 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#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768086	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	900		1000		90.3	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768087	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	64	130			
Surr: BFB	980		1000		98.2	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505007

14-Jul-15

Client: Animas Environmental
Project: CoP San Juan 28-6 # 155N

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R25904			RunNo: 25904					
Prep Date:		Analysis Date: 5/1/2015			SeqNo: 768099		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: R25904			RunNo: 25904					
Prep Date:		Analysis Date: 5/1/2015			SeqNo: 768100		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	111	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1505007-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768101	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.038	0.7645	0	113	69.2	126			
Toluene	0.87	0.038	0.7645	0	113	65.6	128			
Ethylbenzene	0.88	0.038	0.7645	0.006215	114	65.5	138			
Xylenes, Total	2.6	0.076	2.294	0	114	63	139			
Surr: 4-Bromofluorobenzene	0.86		0.7645		113	80	120			

Sample ID	1505007-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-5 (2)	Batch ID:	R25904	RunNo:	25904					
Prep Date:		Analysis Date:	5/1/2015	SeqNo:	768103	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.038	0.7645	0	109	69.2	126	3.91	18.5	
Toluene	0.83	0.038	0.7645	0	108	65.6	128	4.33	20.6	
Ethylbenzene	0.85	0.038	0.7645	0.006215	111	65.5	138	2.55	20.1	
Xylenes, Total	2.5	0.076	2.294	0	111	63	139	2.95	21.1	
Surr: 4-Bromofluorobenzene	0.83		0.7645		109	80	120	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 Not In Range |
| 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: 1505007

RcptNo: 1

Received by/date:

[Signature]

05/01/15

Logged By: Lindsay Mangin

5/1/2015 5:50:00 AM

[Signature]

Completed By: Lindsay Mangin

5/1/2015 7:19:02 AM

[Signature]

Reviewed By:

AT 05/01/15

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°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	3.1	Good	Yes			

Client: Animas Environmental Services

Mailing Address: 604 W. Pinen St.
Farmington NM 87401

Phone #: 505-564-2281

email or Fax#: eskyles@annasenvironmental.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____☐ EDD (Type)

☒ Standard ☒ Rush Same Day

Project Name:

COP San Juan 28-6 # 155N

Project #:

Project Manager:

Sampler: C. Lameman

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.1

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

08/01/15
Container
Type and #
12004 Kt

Preservative
Type

HEAL No.

4-30-15	0920	Sc 1	Sc-5
---------	------	------	------

2-402 jar

Cool

1505207
-001

Date:	Time:	Relinquished by:
-------	-------	------------------

Received by:

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

Remarks: Bill to ConocoPhillips

30/1x	1722	Carin Cur
-------	------	-----------

Christa Walter 4/30/15 1722

Wot#: 20605998

Area: 24

Date:	Time:	Relinquished by:
-------	-------	------------------

Received by:

Date | Time

Guest: Mike Smith

Act 12. D150

4/30/1819 Anneke Walke

~~05/01/15 2550~~

user: KGARCIA

Ordered by: Lindsay Dumas

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

