

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 27-4 UNIT 82

API Number: 30-039-20823

OCD Permit Number: _____

U/L or Qtr/Qtr H Section 26 Township 27N Range 4W County: Rio Arriba

Center of Proposed Design: Latitude 36.54680 °N Longitude -107.21459 °W NAD: ☐ 1927 ☒ 1983

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

OIL CONS. DIV DIST. 3

DEC 14 2010

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)**

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

Within 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 ☐ No

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

- FEMA map

☐ Yes ☐ No

Below Grade Tanks

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

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

☐ Yes ☐ No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial 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 300feet of any other fresh water well or spring, in existence at the time of the initial application.

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

☐ Yes ☐ No

Within 100 feet of a wetland.

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

☐ Yes ☐ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

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

☐ Yes ☐ No

Within 300 feet of a wetland.

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

☐ Yes ☐ No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

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

☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

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

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

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

☐ Yes ☐ No

Within 500 feet of a wetland.

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

☐ Yes ☐ No

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: 12/28/2016

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: 8/17/2016

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: 12/16/16

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 27-4 UNIT 82

API No.: 30-039-20823

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: Emilee Skyles <eskyles@animasenvironmental.com>
Sent: Monday, April 25, 2016 3:53 PM
To: Walker, Crystal; Cory Smith; Fields, Vanessa, EMNRD; Flaniken, Mike (Mike_Flaniken@blm.gov); Katherina Diemer (kdiemer@blm.gov); Corwin Lameman
Cc: Farrell, Juanita R; GRP:SJBU Regulatory; Jones, Lisa; SJBU E-Team
Subject: [EXTERNAL]RE: BGT 72-Hour Notification for 4/26/2016

Good Afternoon Crystal,

I just noticed the arrival time set at 8 am for these locations, however, the first one is pretty far out so AES is set to arrive at the San Juan 27-4 Unit 82 at 10 am Tuesday morning. Sorry for the last minute change.

Kind regards,
Emilee

From: Walker, Crystal [mailto:Crystal.Walker@conocophillips.com]
Sent: Thursday, April 21, 2016 9:14 AM
To: Cory Smith <cory.smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Flaniken, Mike (Mike_Flaniken@blm.gov) <Mike_Flaniken@blm.gov>; Katherina Diemer (kdiemer@blm.gov) <kdiemer@blm.gov>
Cc: Emilee Skyles <eskyles@animasenvironmental.com>; Farrell, Juanita R <Juanita.R.Farrell@conocophillips.com>; GRP:SJBU Regulatory <SJBURegulatory@conocophillips.com>; Jones, Lisa <Lisabeth.S.Jones@conocophillips.com>; SJBU E-Team <SJBUE-Team@conocophillips.com>
Subject: BGT 72-Hour Notification for 4/26/2016

Good morning,

The following locations contained below-grade tanks that require re-sampling, which is scheduled for **Tuesday, April 26th** to begin at **8:00 AM** at the first location and continue to the next.

WELL NAME	BGT Latitude	BGT Longitude	Surface Owner
San Juan 27-4 Unit 82	36.5468	-107.214590	FEDERAL
San Juan 27-5 Unit 92R	36.525011	-107.306666	STATE
Huerfano Unit 170	36.454335	-107.844595	FEDERAL
Huerfanito Unit 19R	36.521135	-107.771165	FEDERAL

Please feel free to contact me at any time if you have any questions or concerns regarding this information.

Thank you,

Crystal Walker
Regulatory Coordinator
ConocoPhillips Lower 48

T: 505-326-9837 | F: 505-599-4086 | M: 505-215-4361 | crystal.walker@cop.com

Visit the new Lower 48 website:
www.conocophillipsuslower48.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 Co.	Contact	Bobby Spearman
Address	3401 East 30 th St, Farmington, NM	Telephone No.	(505)-320-3045
Facility Name	SJ 27-4 #82	Facility Type	Gas well

Surface Owner:	USFS	Mineral Owner:	FED	API	3003920823
----------------	------	----------------	-----	-----	------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	26	27N	4W	1800	North	800	East	Rio Arriba

Latitude 36.54680 Longitude -107.214590

NATURE OF RELEASE

Type of Release	Hydrocarbon	Volume of Release	Unknown	Volume Recovered	None
Source of Release	BGT	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	Unknown
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 type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Historic contamination was encountered after a soil sample was taken on 4-27-16

Describe Area Affected and Cleanup Action Taken.

Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 49'x 54' x 6.5' and 637 yds of soil was transported to Envirotech land farm and 637 yds. of clean soil was transported and placed in the excavation site. The soil sampling 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:	OIL CONSERVATION DIVISION		
Printed Name: Bobby Spearman	Approved by Environmental Specialist:		
Title: Field Environmental Specialist	Approval Date:	Expiration Date:	
E-mail Address: Robert.E.Spearman@conocophillips.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 12-6-16	Phone: (505) 320-3045		

* Attach Additional Sheets If Necessary

Animas Environmental Services, LLC



October 28, 2016

Lisa Hunter, Robert Spearman
ConocoPhillips
San Juan Business Unit
(505) 326-9786, (505) 320-3045

Via electronic mail to:

SJBUE-Team@ConocoPhillips.com

**RE: Below Grade Tank Closure, Release Assessment, and Excavation Report
San Juan 27-4 Unit 82
Rio Arriba County, New Mexico**

Dear Ms. Hunter and Mr. Spearman:

On April 26, May 24 and August 16 and 17, 2016, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (COPC) San Juan 27-4 Unit 82 located in Rio Arriba County, New Mexico. At the request of the New Mexico Oil Conservation Division (NMOCD), resampling of the location below the former BGT was necessary in order to meet all required closure criteria listed in New Mexico Administrative Code (NMAC) 19.15.17.13E. The historic release at the former BGT consisted of an unknown quantity of produced water and hydrocarbons. BGT closure sampling was conducted on April 26, 2016; an initial release assessment was completed on May 24, 2016; and the final excavation was completed by COPC contractors while AES was on location on August 17, 2016.

1.0 Site Information

1.1 Location

Site Name – San Juan 27-4 Unit 82

Location – SE¼ NE¼, Sect. 26, T27N, R4W,
Rio Arriba County, New Mexico

Well Head Latitude/Longitude – N36.54674, W107.21461

BGT/Release Latitude/Longitude – N36.54680, W107.21459,

Land Jurisdiction – Bureau of Land Management

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, May 2016

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

1911 Main, Ste 206
Durango, CO 81301
970-403-3084

www.animasenvironmental.com

1.2 NMOCD Ranking

In accordance with 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:** A cathodic report dated February 1997 from San Juan 27-4 Unit 29, located 1,000 feet north of the location and 100 feet lower in elevation, reported the depth to groundwater at 100 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:** The Ahogadero Canyon is located approximately 140 feet northeast of the BGT site. (20 points)

1.3 Assessment

AES was initially contacted by Robert Spearman, COPC representative, on April 12, 2016. At the request of the NMOCD, sampling of the location below the former BGT was required in order to meet required closure criteria listed in NMAC 19.15.17.13E. On April 26, 2016, Corwin Lameman and Delilah Dougi of AES traveled to the location. Soil sampling consisted of collection of one discrete soil sample from below the former BGT liner.

On May 24, 2016, AES personnel completed the release assessment field work. The assessment included collection and field sampling of 37 soil samples from 11 soil borings (SB-1 through SB-11). Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On August 16 and 17, 2016, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of eight confirmation soil samples (SC-1 through SC-8) from the walls and base of the excavation. The area of the final excavation measured approximately 49 feet by 54 feet by 6.5 feet in depth on sandstone. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 37 soil samples (SB-1 through SB-11) and 9 composite samples (BGT SC-1 and SC-1 through SC-8) were collected during the assessments. All soil samples, except for BGT SC-1, were field screened for volatile organic compounds (VOCs), and selected samples were analyzed for total petroleum hydrocarbon (TPH). All composite samples (BGT SC-1 and SC-1 through SC-8) collected 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

Soil samples were also analyzed in the field for TPH 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 sample chain of custody records. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico.

Composite soil sample BGT SC-1 was laboratory analyzed for:

- TPH per USEPA Method 418.1;
- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- Chlorides per USEPA Method 300.0.

In addition, confirmation composite soil samples SC-1 through SC-8 were laboratory analyzed for:

- BTEX per USEPA Method 8021B; and
- TPH as Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Motor Oil Range Organics (MRO) per method 8015.

2.3 Field and Laboratory Analytical Results

On May 24, 2016, initial assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in SB-1 through SB-11 up to 3,858 ppm in SB-8. Field TPH concentrations ranged from less than 20 mg/kg in SB-5, SB-6 and SB-7 up to 5,220 mg/kg in SB-4.

Final excavation field screening results for VOCs via OVM ranged from 2.2 ppm in SC-4 and SC-6 up to 1,866 ppm in SC-8. Field TPH concentrations ranged from 42.7 mg/kg in SC-6 up to 1,540 mg/kg in SC-8. Field screening VOC and TPH results are summarized in Table 1 and on Figures 3 and 4. The AES field sampling reports are attached.

Table 1. Soil Field VOCs and TPH Results
San Juan 27-4 #82 BGT Closure, Release Assessment and Final Excavation
April, May and August 2016

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCD Action Level*			NE/100	100/100
BGT SC-1	04/26/16	NA	NA	NA
SB-1	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	34.5
		5	2,475	NA
		6	2,810	2,110
SB-2	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	36.2
		4.5	18.9	79.7
SB-3	05/24/16	0.5	0.0	NA
		2	0.0	NA
		4	90.1	76.4
SB-4	05/24/16	0.5	0.0	NA
		2	0.0	NA
SB-4	05/24/16	3.5	2,274	NA
		4	2,329	5,220

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCD Action Level*			NE/100	100/100
SB-5	05/24/16	0.5	0.9	NA
		2	0.0	NA
		4	0.0	<20.0
SB-6	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	1.1	NA
		5	0.0	<20.0
SB-7	05/24/16	0.5	0.0	NA
		2	0.0	NA
		4	0.0	<20.0
SB-8	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	3,858	805
SB-9	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	24.4
SB-10	05/24/16	0.5	0.0	NA
		2	0.0	21.1
SB-11	05/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	22.8
SC-1	08/16/16	0 to 6.5	9.0	93.3
SC-2	08/17/16	0 to 6.5	5.0	47.3
SC-3	08/16/16	0 to 6.5	291	68.8
SC-4	08/17/16	0 to 6.5	2.2	68.8
SC-5	08/17/16	6.5	974	665
SC-6	08/17/16	0 to 6.5	2.2	42.7
SC-7	08/17/16	0 to 6.5	221	47.3
SC-8	08/17/16	6.5	1,866	1,540

NA – not analyzed

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and *NMAC 19.15.17.13E*.

Laboratory analysis of sample BGT SC-1 was used to determine benzene, total BTEX, total TPH, and chloride concentrations for BGT closure sampling results. Laboratory analytical results reported benzene concentration at less than 0.024 mg/kg; total BTEX at 6.0 mg/kg; total TPH at 3,100 mg/kg; and chloride concentration as less than 30 mg/kg.

Laboratory analyses for SC-1 through SC-8 were used to confirm field sampling results from the final excavation extents. Benzene concentrations were reported below laboratory detection limits in all samples. Total BTEX concentrations ranged from 0.171 mg/kg in SC-7 up to 1.5 mg/kg in SC-8. Total TPH concentrations ranged from below laboratory detection limits in SC-2, SC-6 and SC-7 up to 386 mg/kg in SC-8. Results are summarized in Table 2 and included on Figures 3 and 4. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
Benzene, Total BTEX, Total TPH (418.1), TPH (8015), and Chlorides
San Juan 27-4 Unit 82 BGT Closure, Release Assessment, and Final Excavation
April and August 2016

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	Total TPH (418.1) (mg/kg)	TPH GRO (8015) (mg/kg)	TPH DRO (8015) (mg/kg)	TPH MRO (8015) (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level*			0.2/10*	50	100/100*		100/100*		250/NE*
BGT SC-1	04/26/16	5.5	<0.024	6.0	3,100	NA	NA	NA	<30
SC-1	08/16/16	0 to 6.5	<0.025	<0.225	NA	<5.0	19	<50	NA
SC-2	08/17/16	0 to 6.5	<0.025	<0.221	NA	<4.9	<9.9	<50	NA
SC-3	08/16/16	0 to 6.5	<0.017	0.091	NA	9.2	15	<50	NA
SC-4	08/17/16	0 to 6.5	<0.023	<0.211	NA	<4.7	13	<50	NA
SC-5	08/17/16	6.5	<0.036	0.560	NA	76	110	120	NA
SC-6	08/17/16	0 to 6.5	<0.024	<0.215	NA	<4.8	<9.7	<48	NA
SC-7	08/17/16	0 to 6.5	<0.019	<0.171	NA	<3.8	<9.2	<46	NA
SC-8	08/17/16	6.5	<0.093	1.5	NA	150	140	96	NA

NA – not analyzed

*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) and *NMAC 19.15.17.13E*.

3.0 Conclusions and Recommendations

On April 26, May 24 and August 16 and 17, 2016, AES conducted a BGT closure and assessment of petroleum contaminated soils from an historic release at the San Juan 27-4 Unit 82. NMOCD action levels for BGT closures are specified in NMAC 19.15.17.13E. 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.

Laboratory BGT closure sampling TPH results in May 2016 were above the NMOCD action level of 100 mg/kg, with BGT SC-1 at 3,100 mg/kg TPH. Laboratory results for chloride concentrations in BGT SC-1 were reported below the NMOCD action level of 250 mg/kg. Based on laboratory results, a release was confirmed.

In May 2016, release assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in SB-1, SB-4 and SB-8. The highest VOC concentration was reported in SB-8 with 3,858 ppm, and the highest TPH concentration was reported in SB-4 with 5,220 mg/kg. Excavation of the release area was recommended.

On August 16 and 17, 2016, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for three of the final walls of the excavation. However, samples SC-3 (northeast wall), SC-5 (north half base), SC-7 (southeast wall) and SC-8 (south half base) reported VOC concentrations above the NMOCD action level with 291 ppm, 974 ppm, 221 ppm and 1,866 ppm, respectively. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls of the excavation, with the exceptions of the north half base sample SC-5 and south half base sample SC-8. Laboratory analytical results reported all benzene and total BTEX concentrations in SC-1 through SC-8 below NMOCD action levels. TPH concentrations as GRO/DRO/MRO were also reported below the applicable NMOCD action level in all samples except SC-5 and SC-8, which had a TPH concentrations of 306 mg/kg and 386 mg/kg, respectively.

Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 27-4 Unit 82, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final sidewalls of the excavation. However, the base of the excavation exceeded applicable NMOCD action levels for total TPH (GRO/DRO/MRO). In email correspondence dated August 19, 2016, COPC received approval from Cory Smith, NMOCD representative, for

alternative closure standards and permission to backfill 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 or Elizabeth McNally at (505) 564-2281.

Sincerely,



Victoria Giannola
Project Manager



Emilee Skyles
Geologist/Project Lead



Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, May 2016
- Figure 3. Release Assessment Sample Locations and Results, May 2016
- Figure 4. Final Excavation Sample Locations and Results, August 2016
- AES Field Sampling Report 052416
- AES Field Sampling Report 081616
- Hall Laboratory Analytical Report 1604B64
- Hall Laboratory Analytical Report 1608A52
- Hall Laboratory Analytical Report 1608A55

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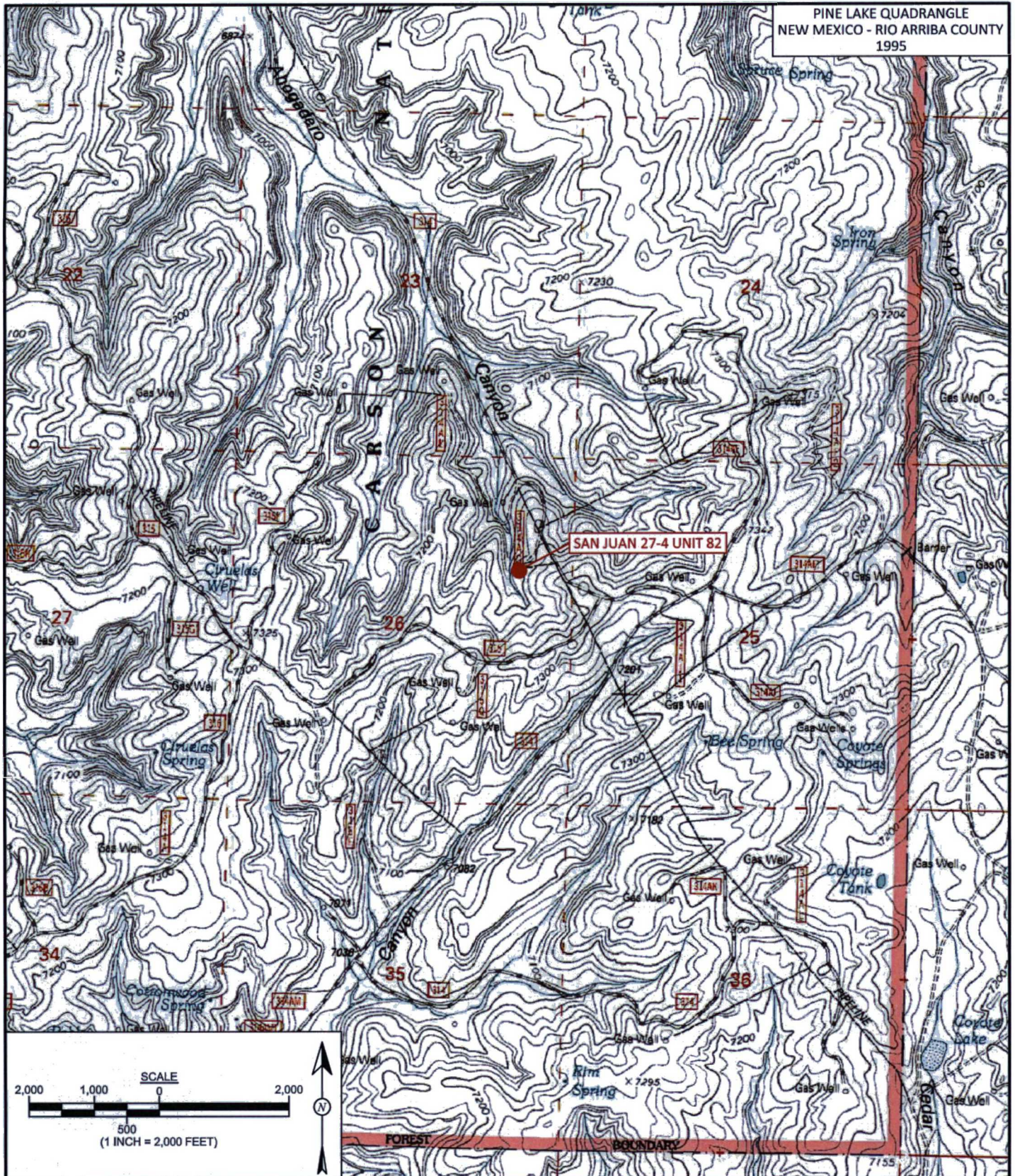


FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 27-4 UNIT 82
SE¼ NE¼, SECTION 26, T27N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.54674, W107.21461



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services**
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DRAWN BY:
D. Dougi

DATE DRAWN:
May 16, 2016

REVISIONS BY:
S. Glasses




DATE REVISED:
May 17, 2016

CHECKED BY:
E. Skyles

DATE CHECKED:
May 17, 2016

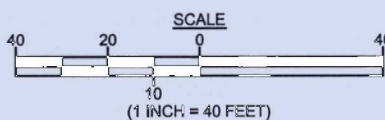
APPROVED BY:
E. McNally

DATE APPROVED:
May 17, 2016

LEGEND	
	SECONDARY CONTAINMENT
	BERM
	FENCE

BGT - N36.546800,
W107.214590

SAN JUAN 27-4 UNIT 82 WELL MOUNTED



AERIAL SOURCE: © 2016 GOOGLE EARTH PRO, AERIAL DATE: MARCH 16, 2016



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DRAWN BY:
D. Dougi

DATE DRAWN:
May 16, 2016

REVISIONS BY:
S. Glasses

DATE REVISED:
May 17, 2016

CHECKED BY:
E. Skyles

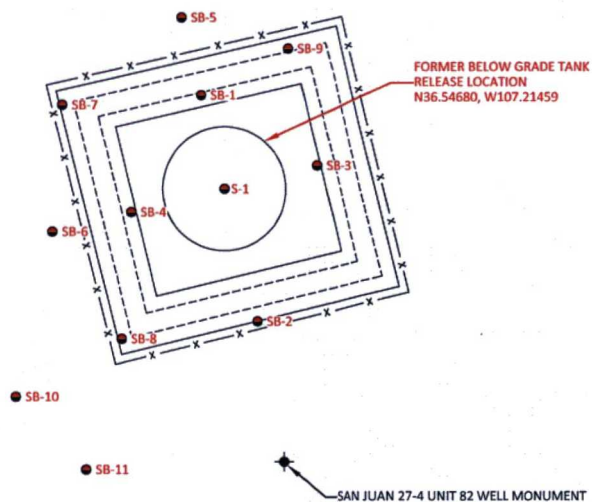
DATE CHECKED:
May 17, 2016

APPROVED BY:
E. McNally

DATE APPROVED:
May 17, 2016

FIGURE 2

AERIAL SITE MAP
MAY 2016
ConocoPhillips
SAN JUAN 27-4 UNIT 82
SE¼ NE¼, SECTION 26, T27N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.54674, W107.21461



Field Screening Results				
Sample ID	Date	Depth (ft)	OV/M-PID (ppm)	TPH (mg/kg)
		NMOC ACTION LEVEL		100
SB-1	5/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	34.5
		5	2,475	NA
		6	2,810	2,110
SB-2	5/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	0.0	36.2
		4.5	18.9	79.7
		0.5	0.0	NA
SB-3	5/24/16	2	0.0	NA
		4	90.1	76.4
		0.5	0.0	NA
		2	0.0	NA
		3.5	2,274	NA
SB-4	5/24/16	4	2,329	5,220
		0.5	0.9	NA
		2	0.0	NA
		4	0.0	<20.0
		0.5	0.0	NA
SB-6	5/24/16	2	0.0	NA
		3.5	1.1	NA
		5	0.0	<20.0
		0.5	0.0	NA
		4.0	0.0	<20.0
SB-8	5/24/16	0.5	0.0	NA
		2	0.0	NA
		3.5	3,858	805
		0.5	0.0	NA
		2	0.0	NA
SB-9	5/24/16	3.5	0.0	24.4
		0.5	0.0	NA
		2	0.0	21.1
		0.5	0.0	NA
		2	0.0	NA
SB-11	5/24/16	3.5	0.0	22.8
		0.5	0.0	NA
		2	0.0	NA
		0.5	0.0	NA
		2	0.0	NA

NA - NOT ANALYZED

FIGURE 3

RELEASE ASSESSMENT SAMPLE
LOCATIONS, AND RESULTS
MAY 2016
ConocoPhillips
SAN JUAN 27-4 UNIT 82
SE¼, NE¼, SECTION 26, T27N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.54674, W107.21461



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animasenvironmental.com

DRAWN BY:
S. Glasses

DATE DRAWN:
May 25, 2016

REVISIONS BY:
S. Glasses

DATE REVISED:
October 26, 2016

CHECKED BY:
E. Skyles

DATE CHECKED:
October 26, 2016

APPROVED BY:
E. McNally

DATE APPROVED:
October 26, 2016

LEGEND

- SOIL BORING LOCATION
- FORMER SECONDARY CONTAINMENT BERM
- x— FENCE

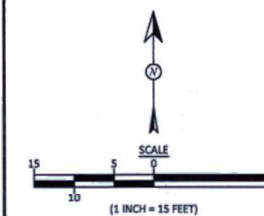


FIGURE 4

**FINAL EXCAVATION SAMPLE
LOCATIONS AND RESULTS
AUGUST 2016**
ConocoPhillips
SAN JUAN 27-4 UNIT 82
SE¼ NE¼, SECTION 26, T27N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.54674, W107.21461

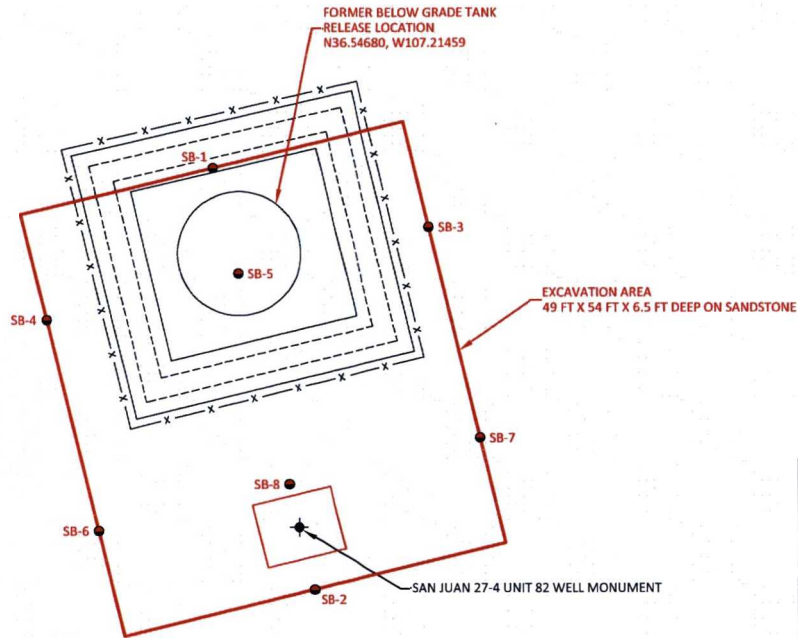


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DRAWN BY: C. Lameman	DATE DRAWN: August 19, 2016
REVISIONS BY: C. Lameman	DATE REVISED: August 24, 2016
CHECKED BY: E. Skyles	DATE CHECKED: August 24, 2016
APPROVED BY: E. McNally	DATE APPROVED: August 24, 2016

LEGEND

- SAMPLE LOCATION
- ===== FORMER SECONDARY CONTAINMENT BERM
- x — FENCE

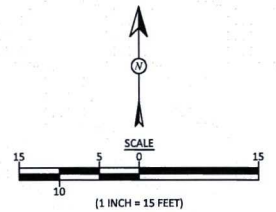


Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	8/16/16	0 to 6.5	9.0	93.3
SC-2	8/17/16	0 to 6.5	5.0	47.3
SC-3	8/16/16	0 to 6.5	291	68.8
SC-4	8/17/16	0 to 6.5	2.2	68.8
SC-5	8/17/16	6.5	974	665
SC-6	8/17/16	0 to 6.5	2.2	42.7
SC-7	8/17/16	0 to 6.5	221	47.3
SC-8	8/17/16	6.5	1,886	1,540

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	8/16/16	0 to 6.5	<0.025	<0.225	<5.0	<50
SC-2	8/17/16	0 to 6.5	<0.025	<0.221	<4.9	<50
SC-3	8/16/16	0 to 6.5	<0.017	0.091	9.2	<50
SC-4	8/17/16	0 to 6.5	<0.023	<0.211	<4.7	<50
SC-5	8/17/16	6.5	<0.036	0.56	76	120
SC-6	8/17/16	0 to 6.5	<0.024	<0.215	<4.8	<48
SC-7	8/17/16	0 to 6.5	<0.019	<0.171	<3.8	<46
SC-8	8/17/16	6.5	<0.093	1.5	150	96

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



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 27-4 Unit 82

Date: 5/25/2016

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
SB-1 @ 0.5'	9/12/2015	10:30	20.3	Not Analyzed for TPH				
SB-1 @ 2.0'	9/12/2015	10:32	4,553	Not Analyzed for TPH				
SB-1 @ 3.5'	9/12/2015	10:34	20.3	Not Analyzed for TPH				
SB-1 @ 5.0'	9/12/2015	10:46	20.3	>2,500	11:40	20.0	1	EMS
SB-1 @ 6.0'	9/12/2015	10:59	4,250	Not Analyzed for TPH				
SB-2 @ 0.5'	9/12/2015	11:01	20.3	Not Analyzed for TPH				
SB-2 @ 2.0'	9/12/2015	11:04	5,069	Not Analyzed for TPH				
SB-2 @ 3.5'	9/12/2015	11:08	20.3	Not Analyzed for TPH				
SB-2 @ 4.5'	9/12/2015	11:12	2,049	1,440	12:49	20.0	1	EMS
SB-3 @ 0.5'	9/12/2015	11:20	20.3	Not Analyzed for TPH				
SB-3 @ 2.0'	9/12/2015	11:24	4,250	74.3	12:53	20.0	1	EMS
SB-3 @ 4.0'	9/12/2015	11:28	20.3	Not Analyzed for TPH				
SB-4 @ 0.5'	9/12/2015	11:37	4,250	4,250	12:57	20.0	1	EMS

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-4 @ 2.0'	9/12/2015	11:40	20.3	Not Analyzed for TPH				
SB-4 @ 3.5'	9/12/2015	11:54	4,250	Not Analyzed for TPH				
SB-5 @ 0.5'	9/12/2015	11:57	20.3	Not Analyzed for TPH				
SB-5 @ 2.0'	9/12/2015	12:00	4,250	Not Analyzed for TPH				
SB-5 @ 4.0'	9/12/2015	12:17	20.3	Not Analyzed for TPH				
TH-6 @ 12'	9/12/2015	12:23	20.3	74.3	13:35	20.0	1	EMS
TH-7 @ 3'	9/12/2015	12:32	4,250	Not Analyzed for TPH				
TH-7 @ 8'	9/12/2015	12:36	20.3	Not Analyzed for TPH				
TH-7 @ 12'	9/12/2015	12:40	4,250	4,250	13:39	20.0	1	EMS
TH-8 @ 3'	9/12/2015	12:50	4,791	Not Analyzed for TPH				

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

AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 27-4 Unit 82

Date: 8/16/16 and 8/17/16

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	8/16/2016	9:46	North Wall	9.0	93.3	10:36	20.0	1	CL
SC-2	8/17/2016	9:10	South Wall	5.0	49.3	10:12	20.0	1	CL
SC-3	8/16/2016	9:52	NE Wall	291	68.8	10:51	20.0	1	CL
SC-4	8/17/2016	9:12	NW Wall	2.2	68.8	10:17	20.0	1	CL
SC-5	8/17/2016	10:45	North Base	974	665	10:58	20.0	1	CL
SC-6	8/17/2016	10:40	SW Wall	2.2	42.7	11:01	20.0	1	CL
SC-7	8/17/2016	9:21	SE Wall	221	49.3	10:26	20.0	1	CL
SC-8	8/17/2016	9:25	South Base	1,886	1,540	10:29	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

May 04, 2016

Emilee Skyles

Animas Environmental
604 Pinon Street

Farmington, NM 87401

TEL: (505) 564-2281

FAX

RE: COPC SJ 27-4 Unit 82

OrderNo.: 1604B64

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/27/2016 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1604B64

Date Reported: 5/4/2016

CLIENT: Animas Environmental

Client Sample ID: S-1

Project: COPC SJ 27-4 Unit 82

Collection Date: 4/26/2016 10:50:00 AM

Lab ID: 1604B64-001

Matrix: SOIL

Received Date: 4/27/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: TOM
Petroleum Hydrocarbons, TR	3100	190		mg/Kg	10	5/3/2016	25029
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/2/2016 3:37:31 PM	25106
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/28/2016 10:40:47 PM	25034
Toluene	ND	0.047		mg/Kg	1	4/28/2016 10:40:47 PM	25034
Ethylbenzene	2.2	0.047		mg/Kg	1	4/28/2016 10:40:47 PM	25034
Xylenes, Total	3.8	0.094		mg/Kg	1	4/28/2016 10:40:47 PM	25034
Surr: 4-Bromofluorobenzene	466	80-120	S	%Rec	1	4/28/2016 10:40:47 PM	25034

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B64

04-May-16

Client: Animas Environmental

Project: COPC SJ 27-4 Unit 82

Sample ID	MB-25106	SampType	mbk	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	25106	RunNo	33940					
Prep Date	5/2/2016	Analysis Date	5/2/2016	SeqNo	1045729	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25106	SampType	lcs	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	25106	RunNo	33940					
Prep Date	5/2/2016	Analysis Date	5/2/2016	SeqNo	1045730	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B64

04-May-16

Client: Animas Environmental

Project: COPC SJ 27-4 Unit 82

Sample ID	MB-25029	SampType	MBLK	TestCode	EPA Method 418.1: TPH					
Client ID	PBS	Batch ID	25029	RunNo	33951					
Prep Date	4/27/2016	Analysis Date	5/3/2016	SeqNo	1045945	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-25029	SampType	LCS	TestCode	EPA Method 418.1: TPH					
Client ID	LCSS	Batch ID	25029	RunNo	33951					
Prep Date	4/27/2016	Analysis Date	5/3/2016	SeqNo	1045946	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	109	83.4	127			

Sample ID	LCSD-25029	SampType	LCSD	TestCode	EPA Method 418.1: TPH					
Client ID	LCSS02	Batch ID	25029	RunNo	33951					
Prep Date	4/27/2016	Analysis Date	5/3/2016	SeqNo	1045947	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	110	83.4	127	1.24	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1604B64

04-May-16

Client: Animas Environmental

Project: COPC SJ 27-4 Unit 82

Sample ID	MB-25034		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	25034		RunNo:	33850				
Prep Date:	4/27/2016		Analysis Date:	4/28/2016		SeqNo:	1043171		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.99		1.000		99.1	80	120				

Sample ID	LCS-25034		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 25034		RunNo: 33850					
Prep Date:	4/27/2016		Analysis Date: 4/28/2016		SeqNo: 1043173		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	75.3	123			
Toluene	0.98	0.050	1.000	0	98.4	80	124			
Ethylbenzene	0.92	0.050	1.000	0	92.1	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	91.7	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1604B64

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

4/27/2016 7:15:00 AM

Completed By: Ashley Gallegos

4/27/2016 10:35:04 AM

Reviewed By:

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	1.3	Good	Not Present			

ש. שו"ת מו"ט א-ז וז.

☒ **Standard** ☐ **Rush**

Project Name: COPC SJ 27-4 UNIT 82

Project #:

Project Manager:
E. Skyles

2A/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

Sampler: CL/DTD

☒ NELAP ☐ Other _____

EDD (Type)


[illegible]

late:	Time:	Relinquished by:
10/16	1737	Helical Wong

Received by:	Date	Time
Christine Walter	4/26/16	1:37

Remarks: Bill to Conoco Phillips
WO # 21340555
Supervisor: Nelson
USERID: KAITLW
Area: 9
Ordered by: Bobby Spearman

Date:	Time:	Relinquished by:
4/11/90	1900	Christie Wheeler

Received by:  Date 04/27/16 Time 0715



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

October 24, 2016

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

RE: COPC San Juan 27-4 Unit 82

OrderNo.: 1608A52

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/18/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 19, 2016.

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 1608A52

Date Reported: 10/24/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SC-3**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/16/2016 9:52:00 AM**Lab ID:** 1608A52-001**Matrix:** MEOH (SOIL)**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	15	10		mg/Kg	1	8/18/2016 11:46:31 AM	27048
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/18/2016 11:46:31 AM	27048
Surr: DNOP	85.4	70-130		%Rec	1	8/18/2016 11:46:31 AM	27048
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.2	3.4		mg/Kg	1	8/18/2016 10:08:21 AM	A36601
Surr: BFB	161	68.3-144	S	%Rec	1	8/18/2016 10:08:21 AM	A36601
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	8/18/2016 10:08:21 AM	B36601
Toluene	ND	0.034		mg/Kg	1	8/18/2016 10:08:21 AM	B36601
Ethylbenzene	ND	0.034		mg/Kg	1	8/18/2016 10:08:21 AM	B36601
Xylenes, Total	0.091	0.069		mg/Kg	1	8/18/2016 10:08:21 AM	B36601
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	8/18/2016 10:08:21 AM	B36601

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

Analytical Report

Lab Order 1608A52

Date Reported: 10/24/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SC-5**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/17/2016 10:45:00 AM**Lab ID:** 1608A52-002**Matrix:** MEOH (SOIL)**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	110	9.4		mg/Kg	1	8/18/2016 12:08:27 PM	27048
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	8/18/2016 12:08:27 PM	27048
Surr: DNOP	83.9	70-130		%Rec	1	8/18/2016 12:08:27 PM	27048
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	76	7.2		mg/Kg	2	8/18/2016 10:31:44 AM	A36601
Surr: BFB	302	68.3-144	S	%Rec	2	8/18/2016 10:31:44 AM	A36601
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	2	8/18/2016 10:31:44 AM	B36601
Toluene	ND	0.072		mg/Kg	2	8/18/2016 10:31:44 AM	B36601
Ethylbenzene	ND	0.072		mg/Kg	2	8/18/2016 10:31:44 AM	B36601
Xylenes, Total	0.56	0.14		mg/Kg	2	8/18/2016 10:31:44 AM	B36601
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	2	8/18/2016 10:31:44 AM	B36601

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

Analytical Report

Lab Order 1608A52

Date Reported: 10/24/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SC-7**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/17/2016 9:21:00 AM**Lab ID:** 1608A52-003**Matrix:** MEOH (SOIL)**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/18/2016 12:30:19 PM	27048
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/18/2016 12:30:19 PM	27048
Surr: DNOP	86.9	70-130		%Rec	1	8/18/2016 12:30:19 PM	27048
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	8/18/2016 10:55:15 AM	A36601
Surr: BFB	90.5	68.3-144		%Rec	1	8/18/2016 10:55:15 AM	A36601
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	8/18/2016 10:55:15 AM	B36601
Toluene	ND	0.038		mg/Kg	1	8/18/2016 10:55:15 AM	B36601
Ethylbenzene	ND	0.038		mg/Kg	1	8/18/2016 10:55:15 AM	B36601
Xylenes, Total	ND	0.076		mg/Kg	1	8/18/2016 10:55:15 AM	B36601
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/18/2016 10:55:15 AM	B36601

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

Analytical Report

Lab Order 1608A52

Date Reported: 10/24/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-8

Project: COPC San Juan 27-4 Unit 82

Collection Date: 8/17/2016 9:25:00 AM

Lab ID: 1608A52-004

Matrix: MEOH (SOIL)

Received Date: 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	140	9.8		mg/Kg	1	8/18/2016 12:52:19 PM	27048
Motor Oil Range Organics (MRO)	96	49		mg/Kg	1	8/18/2016 12:52:19 PM	27048
Surr: DNOP	85.8	70-130		%Rec	1	8/18/2016 12:52:19 PM	27048
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	150	19		mg/Kg	5	8/18/2016 11:18:47 AM	A36601
Surr: BFB	241	68.3-144	S	%Rec	5	8/18/2016 11:18:47 AM	A36601
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.093		mg/Kg	5	8/18/2016 11:18:47 AM	B36601
Toluene	ND	0.19		mg/Kg	5	8/18/2016 11:18:47 AM	B36601
Ethylbenzene	ND	0.19		mg/Kg	5	8/18/2016 11:18:47 AM	B36601
Xylenes, Total	1.5	0.37		mg/Kg	5	8/18/2016 11:18:47 AM	B36601
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	5	8/18/2016 11:18:47 AM	B36601

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A52

24-Oct-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	MB-27048	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	27048	RunNo	36594					
Prep Date	8/18/2016	Analysis Date	8/18/2016	SeqNo	1133354	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.0		10.00		80.0	70	130			

Sample ID	LCS-27048	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	27048	RunNo	36594					
Prep Date	8/18/2016	Analysis Date	8/18/2016	SeqNo	1133371	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.8	62.6	124			
Surr: DNOP	3.9		5.000		77.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A52

24-Oct-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	5ML RB	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	A36601	RunNo	36601					
Prep Date:		Analysis Date	8/18/2016	SeqNo	1134203	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	850		1000		84.7	68.3	144			

Sample ID	2.5UG GRO LCS	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	A36601	RunNo	36601					
Prep Date:		Analysis Date	8/18/2016	SeqNo	1134204	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	99.9	80	120			
Surr: BFB	940		1000		94.3	68.3	144			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A52

24-Oct-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134227	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134228	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.0	75.3	123			
Toluene	0.97	0.050	1.000	0	97.2	80	124			
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	100	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	1608A52-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-3	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134229	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.017	0.6868	0	100	71.5	122			
Toluene	0.72	0.034	0.6868	0.01986	102	71.2	123			
Ethylbenzene	0.76	0.034	0.6868	0.02812	106	75.2	130			
Xylenes, Total	2.3	0.069	2.060	0.09082	109	72.4	131			
Surr: 4-Bromofluorobenzene	0.76		0.6868		111	80	120			

Sample ID	1608A52-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-3	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134230	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.61	0.017	0.6868	0	89.4	71.5	122	11.3	20	
Toluene	0.62	0.034	0.6868	0.01986	87.6	71.2	123	14.4	20	
Ethylbenzene	0.63	0.034	0.6868	0.02812	87.8	75.2	130	18.4	20	
Xylenes, Total	2.0	0.069	2.060	0.09082	91.0	72.4	131	17.4	20	
Surr: 4-Bromofluorobenzene	0.74		0.6868		108	80	120	0	0	

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1608A52

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

Completed By: Ashley Gallegos

Reviewed By:

08/18/16
8/18/2016 7:30:00 AM

8/18/2016 8:34:13 AM

08/18/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°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	1.0	Good	Yes			



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

August 23, 2016

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

RE: COPC San Juan 27-4 Unit 82

OrderNo.: 1608A55

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/18/2016 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 1608A55

Date Reported: 8/23/2016

CLIENT: Animas Environmental**Client Sample ID:** SC-1**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/16/2016 9:46:00 AM**Lab ID:** 1608A55-001**Matrix:** SOIL**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	19	10		mg/Kg	1	8/22/2016 10:23:16 AM	27076
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/22/2016 10:23:16 AM	27076
Surr: DNOP	90.0	70-130		%Rec	1	8/22/2016 10:23:16 AM	27076
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2016 6:46:15 PM	27059
Surr: BFB	83.5	68.3-144		%Rec	1	8/19/2016 6:46:15 PM	27059
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/19/2016 6:46:15 PM	27059
Toluene	ND	0.050		mg/Kg	1	8/19/2016 6:46:15 PM	27059
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2016 6:46:15 PM	27059
Xylenes, Total	ND	0.10		mg/Kg	1	8/19/2016 6:46:15 PM	27059
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	8/19/2016 6:46:15 PM	27059

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

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

Lab Order 1608A55

Date Reported: 8/23/2016

CLIENT: Animas Environmental**Client Sample ID:** SC-2**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/17/2016 9:10:00 AM**Lab ID:** 1608A55-002**Matrix:** SOIL**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/22/2016 10:50:49 AM	27076
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/22/2016 10:50:49 AM	27076
Surr: DNOP	89.7	70-130		%Rec	1	8/22/2016 10:50:49 AM	27076
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/19/2016 7:09:42 PM	27059
Surr: BFB	83.9	68.3-144		%Rec	1	8/19/2016 7:09:42 PM	27059
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/19/2016 7:09:42 PM	27059
Toluene	ND	0.049		mg/Kg	1	8/19/2016 7:09:42 PM	27059
Ethylbenzene	ND	0.049		mg/Kg	1	8/19/2016 7:09:42 PM	27059
Xylenes, Total	ND	0.098		mg/Kg	1	8/19/2016 7:09:42 PM	27059
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	8/19/2016 7:09:42 PM	27059

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

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

Lab Order 1608A55

Date Reported: 8/23/2016

CLIENT: Animas Environmental**Client Sample ID:** SC-4**Project:** COPC San Juan 27-4 Unit 82**Collection Date:** 8/17/2016 9:12:00 AM**Lab ID:** 1608A55-003**Matrix:** SOIL**Received Date:** 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	13	10		mg/Kg	1	8/22/2016 11:18:33 AM	27076
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/22/2016 11:18:33 AM	27076
Surr: DNOP	89.0	70-130		%Rec	1	8/22/2016 11:18:33 AM	27076
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/19/2016 7:33:03 PM	27059
Surr: BFB	86.5	68.3-144		%Rec	1	8/19/2016 7:33:03 PM	27059
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/19/2016 7:33:03 PM	27059
Toluene	ND	0.047		mg/Kg	1	8/19/2016 7:33:03 PM	27059
Ethylbenzene	ND	0.047		mg/Kg	1	8/19/2016 7:33:03 PM	27059
Xylenes, Total	ND	0.094		mg/Kg	1	8/19/2016 7:33:03 PM	27059
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	8/19/2016 7:33:03 PM	27059

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1608A55

Date Reported: 8/23/2016

CLIENT: Animas Environmental

Client Sample ID: SC-6

Project: COPC San Juan 27-4 Unit 82

Collection Date: 8/17/2016 9:18:00 AM

Lab ID: 1608A55-004

Matrix: SOIL

Received Date: 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/22/2016 11:48:10 AM	27076
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/22/2016 11:48:10 AM	27076
Surr: DNOP	85.9	70-130		%Rec	1	8/22/2016 11:48:10 AM	27076
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/19/2016 7:56:24 PM	27059
Surr: BFB	84.9	68.3-144		%Rec	1	8/19/2016 7:56:24 PM	27059
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	8/19/2016 7:56:24 PM	27059
Toluene	ND	0.048		mg/Kg	1	8/19/2016 7:56:24 PM	27059
Ethylbenzene	ND	0.048		mg/Kg	1	8/19/2016 7:56:24 PM	27059
Xylenes, Total	ND	0.095		mg/Kg	1	8/19/2016 7:56:24 PM	27059
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	8/19/2016 7:56:24 PM	27059

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A55

23-Aug-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	LCS-27076		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	27076		RunNo:	36661				
Prep Date:	8/19/2016		Analysis Date:	8/22/2016		SeqNo:	1135679		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	95.1	62.6	124				
Surr: DNOP	4.3		5.000		85.2	70	130				

Sample ID	MB-27076		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	27076		RunNo:	36661				
Prep Date:	8/19/2016		Analysis Date:	8/22/2016		SeqNo:	1135680		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.8		10.00		87.9	70	130				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A55

23-Aug-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	MB-27059		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	27059		RunNo:	36640				
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135123		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	840		1000		84.2	68.3	144				

Sample ID	LCS-27059		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	27059		RunNo:	36640				
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135124		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	80	120				
Surr: BFB	930		1000		93.3	68.3	144				

Sample ID	1608A55-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SC-1		Batch ID:	27059		RunNo:	36640				
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135127		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	28	4.7	23.65	0	117	59.3	143				
Surr: BFB	900		946.1		95.2	68.3	144				

Sample ID	1608A55-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SC-1		Batch ID:	27059		RunNo:	36640				
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135128		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	25	4.7	23.45	0	109	59.3	143	8.12	20		
Surr: BFB	880		938.1		94.3	68.3	144	0	0		

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A55

23-Aug-16

Client: Animas Environmental
Project: COPC San Juan 27-4 Unit 82

Sample ID	MB-27059		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	27059		RunNo:	36640			
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135145		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID	LCS-27059		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	27059		RunNo:	36640			
Prep Date:	8/18/2016		Analysis Date:	8/19/2016		SeqNo:	1135146		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	1.0	0.050	1.000	0	103	82.8	121			
Xylenes, Total	3.1	0.10	3.000	0	103	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1608A55

RcptNo: 1

Received by/date:	<u>mg</u>	<u>08/18/16</u>
Logged By:	Michelle Garcia	8/18/2016 7:30:00 AM
Completed By:	Michelle Garcia	8/18/2016 8:59:22 AM
Reviewed By:	<u>AG</u>	<u>08/18/16</u>

Chain of Custody

- | | | | |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 2. Is Chain of Custody complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 3. How was the sample delivered? | Courier | | |

Log In

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

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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client:	Animas Environmental Services, LLC	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush_3-DAY TURNAROUND
Mailing Address:	604 W Pinon St. Farmington, NM 87401	Project Name: COPC San Juan 27-4 Unit 82
Phone #:	505-564-2281	Project #:
Email or Fax#:	eskyles@animasenvironmental.com	Project Manager: E. Skyles
QA/QC Package:	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	

☐ Standard ☒ Rush 3-DAY TURNAROUND

COPC San Juan 27-4 Unit 82

Project #:

Project Manager:

E. Skyles

Accreditation:

☐ NELAP

☐ Other☐ EDD (Type)

Sampler: CL

On Ice:

☒ Yes☐ No

Sample Temperature:

15

[illegible]

Remarks: Bill to Conoco Phillips
WO # 21340555
Supervisor: Nelson
USERID: KAITLW
Area: 9
Ordered by: Bobby Spearman

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.



Photo #1	
Client: ConocoPhillips	
Project Name: San Juan 27-4 Unit 82 Rio Arriba County, NM	
Date Photo Taken: April 26, 2016	
BGT GPS and Location: 36.5468, -107.21459 SE¼ NE¼, Section 26, T27N, R4W	
Taken by: Delilah Dougi, AES	
Subject: BGT sampling, April 2016	
Description: Facing N, overview of entire location.	

Photo #2	
Client: ConocoPhillips	
Project Name: San Juan 27-4 Unit 82 Rio Arriba County, NM	
Date Photo Taken: April 26, 2016	
BGT GPS and Location: 36.5468, -107.21459 SE¼ NE¼, Section 26, T27N, R4W	
Taken by: Delilah Dougi, AES	
Subject: BGT sampling, April 2016	
Description: Facing S, sample location.	