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

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.

1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87505	to the appropriate NMOCD District Office.
12625 45-28850 <u>Proposed Alterna</u>	Pit, Below-Grade Tank, or ative Method Permit or Closure	RECEIVED By OCD at 11:44 am, Jan 27, 2015 Plan Application
☐ Permit of a ☐ Closure of ☐ Modificati	de tank registration a pit or proposed alternative method a pit, below-grade tank, or proposed alternation on to an existing permit/or registration an only submitted for an existing permitted of	
Instructions: Please submit one ap	pplication (Form C-144) per individual pit, below	grade tank or alternative request
Please be advised that approval of this request does not relenvironment. Nor does approval relieve the operator of its		
1.	OCDID # 14520	
	OGRID #: 14538	A
Address: PO BOX 4289, Farmington, NM 8	3/499	· · · · · · · · · · · · · · · · · · ·
Facility or well name: San Juan 32-9 Unit 221		
API Number: <u>3004528850</u>	OCD Permit Number:	
U/L or Qtr/Qtr <u>M (SWSW)</u> Section <u>11</u>	Township 31N Range 10W County:	San Juan
Center of Proposed Design: Latitude <u>36.90779000</u>	<u>NLongitude107.85626000_</u> <u>W</u>	_ NAD: ⊠1927 □ 1983
Surface Owner:  Federal  State Private T	ribal Trust or Indian Allotment	
2. Pit: Subsection F, G or J of 19.15.17.11 NMAC		

Alternative Method:

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

B

Closed Prior to Close Plan Approval

Low Chloride Drilling Fluid yes no

bbl Dimensions: L x W x D

Temporary: Drilling Workover

☐ String-Reinforced

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management

Liner Seams: Welded Factory Other Volume:

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

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet	hospital,
Alternate. Please specify	
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	
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.	
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 accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source
General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  - □ NM Office of the State Engineer - iWATERS database search; □ USGS; ☑ Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. 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	☐ Yes ☐ No
application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  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	
<ul> <li>initial application.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	☐ 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. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:</u> 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 do attached.	ocuments are
☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	9 NMAC
Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC	
<ul> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC</li> </ul>	.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	<del>-</del> 4
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 do attached.	ocuments are
<ul> <li>□ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>□ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>□ A List of wells with approved application for permit to drill associated with the pit.</li> <li>□ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19</li> </ul>	9.15.17.9 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:	

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 dattached.  Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	ocuments are
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 Flank 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	uid Management Pit
14.	
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a 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	attached to the
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 sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 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	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	Yes No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.		
- Written confirmation or verification from the municipality; Written appro	val obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Minim	ng and Mineral Division	☐ Yes ☐ No
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map	gy & Mineral Resources; USGS; NM Geological	U Van U Na
Within a 100-year floodplain FEMA map		☐ Yes ☐ No ☐ Yes ☐ No
16.		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.  □ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the a Construction/Design Plan of Temporary Pit (for in-place burial of a drying □ Protocols and Procedures - based upon the appropriate requirements of 19. □ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and □ Soil Cover Design - based upon the appropriate requirements of Subsection □ Re-vegetation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - based upon the appropriate requirements of Subsection □ Site Reclamation Plan - Site Reclamation Plan - Site Reclamation Plan -	quirements of 19.15.17.10 NMAC of Subsection E of 19.15.17.13 NMAC appropriate requirements of Subsection K of 19.15.17. pad) - based upon the appropriate requirements of 19. 15.17.13 NMAC quirements of 19.15.17.13 NMAC of 19.15.17.13 NMAC drill cuttings or in case on-site closure standards cannot H of 19.15.17.13 NMAC n H of 19.15.17.13 NMAC	.11 NMAC 15.17.11 NMAC
17. Operator Application Certification:		
I hereby certify that the information submitted with this application is true, accur	ate and complete to the best of my knowledge and bel	ief.
Name (Print):	Title:	<del>-</del>
Signature:	Date:	
e-mail address:	Telephone:	÷
18.  OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure ₽	lan (only) X OCD Conditions (see attachment) Set	e front page
OCD Representative Signature:	Approval Date:	
Title: Environmental Specialst	OCD Permit Number:	**
19. Closure Report (required within 60 days of closure completion): 19.15.17.13 Instructions: Operators are required to obtain an approved closure plan prior to the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to be submitted to the division within 60 days of the closure report is required to the division within 60 days of the closure report is required to the division within 60 days of the closure report is required to the division within 60 days of the closure report is required to the closure re	to implementing any closure activities and submitting the completion of the closure activities.  Please do no	
section of the form until an approved closure plan has been obtained and the cl	Sure activities have been completed.  Closure Completion Date: 8/2/12	
section of the form until an approved closure plan has been obtained and the cl  20. Closure Method:		

22. Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure requires	
Name (Print): Kenny Davis	Title: _Staff Regulatory Technician
Signature:	Date:12/5/14
e-mail address: kenny.r.davis@conocophillips.com	Telephone: 505-599-4045

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

Lease Name: San Juan 32-9 Unit 221

API No.: 3004528850

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.
- 2. The below-grade tank referenced above was permitted and closed within 60 days of cessation of the below-grade tanks operation.
- 3. 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.

4. 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.

5. 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.

6. BR will test the soils beneath the below-grade tank to determine whether a release has occurred. COPC 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.



7. 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).

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 300.1	250

8. 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 not determined for the above referenced well.

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.

- 10. 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:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.

Notification is missing due to employee turnovers. ConocoPhillips has reviewed our internal processes and has updated them to include the required 72 hour notification.

11. 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 not found. COPC was not aware that the original notification sent at the time of Permitting was not the only closure notification required.

ConocoPhillips has reviewed our internal processes and has updated them to include the required 72 hour notification.

12. 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.

13. BR Shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved

methods. BLM stipulated seed mixes will used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre- disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. COPC will repeat seeding or planting will be continued until successful vegetative growth occurs.

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

14. 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.

- 15. 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)

Closure Documentation was not submitted within the 60 day requirement due to employee turnovers. ConocoPhillips has reviewed our internal processes and has updated them to ensure closure documentation is submitted with the 60 day time frame.



November 28, 2012

Crystal Tafoya ConocoPhillips San Juan Business Unit Office 214-5 5525 Hwy 64 Farmington, New Mexico 87401 www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3274

RE:

**Below Grade Tank Closure Report** 

San Juan 32-9 #221

San Juan County, New Mexico

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 32-9 #221, located in San Juan County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

## 1.0 Site Information

## 1.1 Location

Site Name - San Juan 32-9 #221

Legal Description - SW¼ SW¼, Section 11, T31N, R10W, San Juan County, New Mexico Well Latitude/Longitude - N36.90779 and W107.85675, respectively BGT Latitude/Longitude - N36.90781 and W107.85715, respectively Land Jurisdiction - Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, August 2012

## 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a cathodic protection report dated January 1994 for the San Juan 32-9 #221 reported the depth to groundwater as 80 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum

Crystal Tafoya SJ 32-9 #221 BGT Closure Report November 28, 2012 Page 2 of 5

Recovery Research Center online mapping tool (<a href="http://ford.nmt.edu/react/project.html">http://ford.nmt.edu/react/project.html</a>) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was between 50 and 99 feet bgs. An unnamed ephemeral wash is located approximately 170 feet south of the BGT. Based on this information, the location was assessed a ranking score of 30 per the NMOCD Guidelines for Leaks, Spills, and Releases (August 1993).

## 1.3 BGT Closure Assessment

AES was initially contacted by Jess Henson, CoP representative, on August 2, 2012, and on the same day Heather Woods and Zachary Trujillo of AES met with a CoP representative at the location. AES personnel collected six soil samples from below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

## 2.0 Soil Sampling

On August 2, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples S-1 through S-5 were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). Soil sample SC-1 was field screened for chlorides and submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

## 2.1 Field Screening

## 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors 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 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.

### 2.1.3 Chlorides

Soil sample SC-1 was field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

## 2.2 Laboratory Analyses

The composite soil sample SC-1 collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- Chloride per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 1.1 ppm in S-2 up to 7.2 ppm in SC-1. Field TPH concentrations ranged from 102 mg/kg in S-2 up to 505 mg/kg in S-3. The field chloride concentration in SC-1 was 40 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results
San Juan 32-9 #221 BGT Closure. August 2012

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action L	evel (NMAC 19.	.15.17.13E)		100	250
S-1	8/2/12	0.5	1.2	194	NA
S-2	8/2/12	0.5	1.1	102	NA
S-3	8/2/12	0.5	6.2	505	NA
S-4	8/2/12	0.5	2.7	111	NA
S-5	8/2/12	0.5	4.9	431	NA

Samuela ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chloride: (mg/kg)
Sample ID  NMOCD Action I		- 12	(ppiii)	100	250
SC-1	8/2/12	0.5	7.2	NA	40

NA = not analyzed

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations were reported at less than 5.0 mg/kg GRO and 12 mg/kg DRO. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results San Juan 32-9 #221 BGT Closure, August 2012

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action	Level (NMAC 19.15	.17.13E)	0.2	50	1	00	250
SC-1	8/2/12	0.5	<0.050	<0.25	<5.0	12	<30

## 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene and total BTEX concentrations in SC-1 were below the NMOCD Action Levels of 0.2 mg/kg and 50 mg/kg, respectively. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in all samples, with the highest concentration reported in S-3 (505 mg/kg). However, TPH concentrations as GRO/DRO were reported below the NMOCD threshold of 100 mg/kg with 12 mg/kg. The chloride concentration for SC-1 was below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, BTEX, TPH, and chlorides, no further work is recommended.

Crystal Tafoya SJ 32-9 #221 BGT Closure Report November 28, 2012 Page 5 of 5

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

Sincerely,

Landrea Cupps

**Environmental Scientist** 

Landres R. Cupps

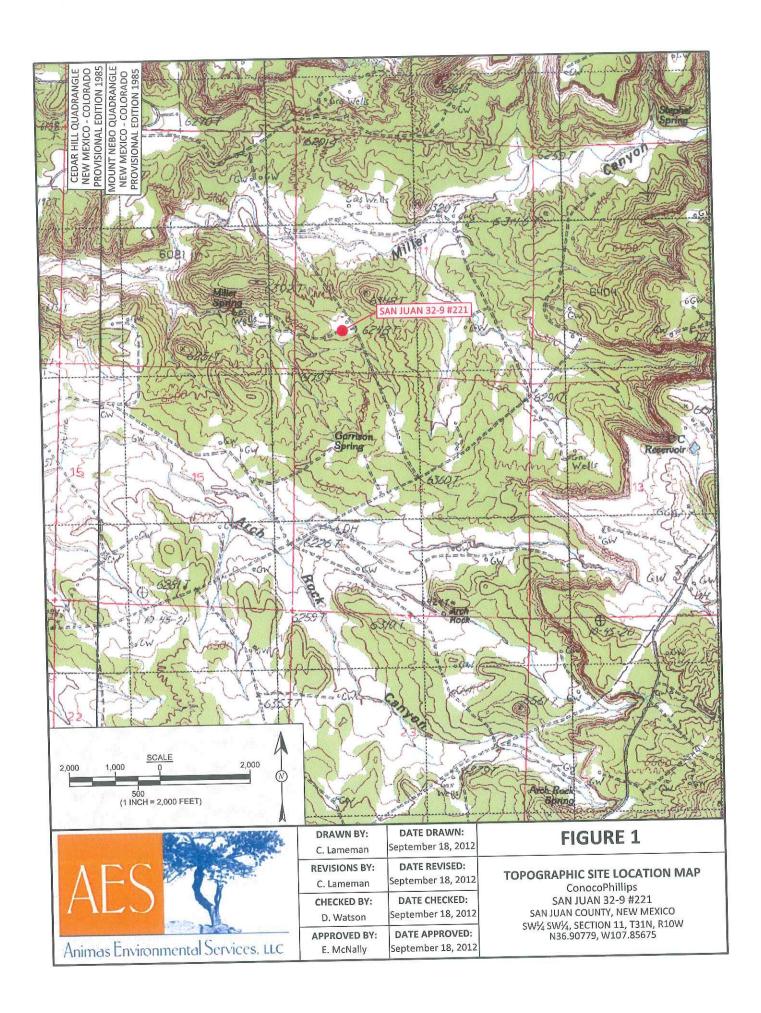
Elizabeth McNally, P.E.

Elizabeth V MiNdly

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, August 2012 AES Field Screening Report 080212 Hall Analytical Report 1208182

S:\Animas 2000\2012 Projects\Conoco Phillips\San Juan 32-9 #221\San Juan 32-9 #221 BGT Closure Report 112812.docx





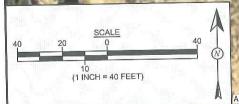
SAMPLE LOCATIONS

	Field S	creenin	g Results	
Sample ID	ole Date PID (mg/kg)		TPH (mg/kg)	Chlorides (mg/kg)
NMOC	ACTION LEVEL		100	250
S-1	8/2/12	1.2	194	NA
S-2	8/2/12	1.1	102	NA
S-3	8/2/12	6.2	505	NA
S-4	8/2/12	2.7	111	NA
S-5	8/2/12	4.9	431	NA
SC-1	8/2/12	7.2	NA	40
			SITE SAM ANALYZED	PLE OF S-1

(112)	1111	Laborato	ry Analytico	ıl Results		
Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACT	ION LEVEL	0.2	50	100		250
SC-1 SAMPLE WAS	8/2/12	<0.050	<0.25	<5.0	12	<30



SAN JUAN 32-9 #221 WELL MONUMENT



AERIAL SOURCE: © 2012 PICTOMETRY INTERNATIONAL CORP. ONLINE, AERIAL TAKEN: MARCH 14, 2011



DRAWN BY:	DATE DRAWN:
C. Lameman	September 18, 2012
REVISIONS BY:	DATE REVISED:
C. Lameman	September 18, 2012
CHECKED BY:	DATE CHECKED:
D. Watson	September 18, 2012
APPROVED BY:	DATE APPROVED:
E. McNally	September 18, 2012

## FIGURE 2

AERIAL SITE MAP BELOW GRADE TANK CLOSURE AUGUST 2012

ConocoPhillips SAN JUAN 32-9 #221 SAN JUAN COUNTY, NEW MEXICO SW¼ SW¼, SECTION 11, T31N, R10W N36.90779, W107.85675

## **AES Field Screening Report**

Client: ConocoPhillips

Project Location: San Juan 32-9 #221

Date: 8/2/2012

Matrix: Soil



www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3274

	TAICHTI IV.	501.						N.				
Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials		
	8/2/2012	10:45	North	1.2	NA	11:30	194	20.0	1	HMW		
S-1	8/2/2012	10:48	South	1.1	NA	11:35	102	20.0	1	HMW		
S-2 S-3	8/2/2012	10:50	East	6.2	NA	11:38	505	20.0	1	HMW		
S-4	8/2/2012	10:54	West	2.7	NA	11:41	111	20.0	1	HMW		
S-5	8/2/2012	10:57	Center	4.9	NA	11:44	431	20.0	1	HMW		
SC-1	8/2/2012	10:59	Composite	7.2	40	Not Analyzed for TPH.						

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver

Heather M. Woods

Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

PQL

Practical Quantitation Limit

ND

Not Detected at the Reporting Limit

DF

**Dilution Factor** 

\*Field TPH concentrations recorded may be below PQL.



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

August 08, 2012

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

FAX

RE: COP SJ 32-9 #221

OrderNo.: 1208182

#### Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/3/2012 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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. 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.

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report Lab Order 1208182

Date Reported: 8/8/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-1

COP SJ 32-9 #221 Project:

Collection Date: 8/2/2012 10:59:00 AM

Matrix: MEOH (SOIL) Lab ID: 1208182-001

Received Date: 8/3/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	12	10	mg/Kg	1	8/3/2012 11:55:18 AM
Surr: DNOP	110	77.6-140	%REC	1	8/3/2012 11:55:18 AM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/3/2012 12:44:59 PM
Surr: BFB	96.9	84-116	%REC	1	8/3/2012 12:44:59 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	8/3/2012 12:44:59 PM
Toluene	ND	0.050	mg/Kg	1	8/3/2012 12:44:59 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/3/2012 12:44:59 PM
Xylenes, Total	ND	0.10	mg/Kg	1	8/3/2012 12:44:59 PM
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	8/3/2012 12:44:59 PM
EPA METHOD 300.0: ANIONS					Analyst: SRM
Chloride	ND	30	mg/Kg	20	8/3/2012 11:18:20 AM

#### Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- Value above quantitation range E
- Analyte detected below quantitation limits J
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
- Reporting Detection Limit
- Samples with CalcVal < MDL

Page 1 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1208182

08-Aug-12

Client:

Animas Environmental Services

Project:	COP SJ 3	2-9 #221									
Sample ID	1208057-001BMS	SampTyp	e: MS		Test	Code: EF	A Method	300.0: Anions	5		
Client ID:	BatchQC	Batch II	D: <b>31</b> 8	31	R	unNo: 46	648				
Prep Date:	8/3/2012	Analysis Dat	e: 8/	3/2012	S	eqNo: 13	30730	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0.5005	90.9	64.4	117			
Sample ID	1208057-001BMS	D SampTyp	e: MS	SD SD	Test	Code: El	PA Method	300.0: Anions	S		
Client ID:	BatchQC	Batch I	D: 31	81	R	tunNo: 4	648				
Prep Date:	8/3/2012	Analysis Dat	e: 8/	3/2012	S	SeqNo: 1	30731	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0.5005	90.3	64.4	117	0.654	20	
Sample ID	MB-3181	SampTy	oe: ME	BLK	Tes	tCode: E	PA Method	300.0: Anion	s		
Client ID:		Batch I	D: 31	81	F	RunNo: 4	648				
Prep Date:	8/3/2012	Analysis Da	te: 8/	3/2012	5	SeqNo: 1	30738	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5		200000 30000000000000000000000000000000						
Sample ID	LCS-3181	SampTy	pe: LC	cs	Tes	tCode: E	PA Method	1 300.0: Anion	ıs		
Client ID:	LCSS	Batch	ID: 31	81	F	RunNo: 4	1648				
Prep Date:	8/3/2012	Analysis Da	te: 8	/3/2012	Ş	SeqNo: 1	130739	Units: mg/l	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC			%RPD	RPDLimit	Qual

0

1.5

15.00

97.2

#### Qualifiers:

Chloride

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits J RPD outside accepted recovery limits

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit ND Reporting Detection Limit

Page 2 of 5

110

# Hall Environmental Analysis Laboratory, Inc.

WO#:

130

140

1208182

08-Aug-12

Client:

Animas Environmental Services

10

50.00

5.000

36

4.1

Project:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

COP SJ 32-9 #221

Toject.												
Sample ID MB-3179	SampType: N	IBLK	TestCode: EPA Method 8015B: Diesel Range Organics									
Client ID: PBS	Batch ID: 3	R	RunNo: 4631									
Prep Date: 8/3/2012	Analysis Date:	8/3/2012	S	SeqNo: 1	30294	Units: mg/K	g					
Analyte	Result PQL	. SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	ND 1	0										
Surr: DNOP	12	10.00		118	77.6	140						
Sample ID LCS-3179	SampType: I	_cs	Tes	tCode: E	PA Method	8015B: Dies	el Range (	Organics				
Client ID: LCSS	Batch ID:	3179	F	RunNo: 4	631							
Prep Date: 8/3/2012	Analysis Date:	8/3/2012	5	SeqNo: 1	30295	Units: mg/h	(g					
Analyte	Result PQI	_ SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			

71.8

81.8

52.6

77.6

## Qualifiers:

Value exceeds Maximum Contaminant Level. \*/X

Value above quantitation range

Analyte detected below quantitation limits

RPD outside accepted recovery limits

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit

Reporting Detection Limit

Page 3 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1208182

08-Aug-12

Client:

Animas Environmental Services

Cnent: Project:	COP SJ 32	2-9 #221	ar Der v	1005								
Sample ID I	MR-3170	SampTy	pe: MB	LK	Test	Code: EP	A Method	8015B: Gaso	line Range	9		
Client ID:			ID: 317		RunNo: 4638							
	- Harmonian	(57)5/3/1.			9	eaNo: 13	0903	Units: mg/K	a			
Prep Date:	8/2/2012	Analysis Da				CONTRACTOR SERVE		( <del>3</del> )	<del></del>		0 -1	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range	e Organics (GRO)	ND	5.0				2.2	440				
Surr: BFB		970		1000		96.9	84	116				
Sample ID	LCS-3170	SampTy	/pe: LC	s	Test	Code: EF	A Method	8015B: Gaso	line Rang	е		
Client ID:	LCSS	Batch	ID: 31	70	R	unNo: 46	38					
Prep Date:		Analysis Da	ate: 8/	3/2012	S	eqNo: 13	30904	Units: mg/M	(g			
*ur 65	0/11/2011	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Analyte	e Organics (GRO)	24	5.0	25.00	0	95.3	85	115				
Surr: BFB	e Organics (ONO)	1000	0.0	1000		101	84	116				
Sun. Di D												
Sample ID	1208009-001AMS	SampT	ype: M	3	Tes	tCode: El	A Method	8015B: Gaso	oline Rang	je		
Client ID:	BatchQC	Batch	ID: 31	70	F	RunNo: 4	638					
Prep Date:	8/2/2012	Analysis D	ate: 8	/3/2012		SeqNo: 1	30908	Units: mg/l	Kg			
12 2004	0,2,20.1	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Analyte	ge Organics (GRO)	29	4.7	23.50	2.207	113	70	130				
Surr: BFB	ge Organics (Orto)	1200		939.8		125	84	116			S	
		D CT	ima. M	en.	Tos	tCode: F	PA Method	l 8015B: Gas	oline Rand	ge		
	1208009-001AMS	150 to 457 (1 150 to	ype: M							50		
Client ID:	BatchQC		n ID: 31			RunNo: 4		**************************************				
Prep Date:	8/2/2012	Analysis D	Date: 8	/3/2012	Ì	SeqNo: 1	30909	Units: mg/			400 Maria Inc. 1977	
Analyte		Result	PQL		SPK Ref Val		LowLimit		%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	27	4.7			105	70		6.12	22.1 0		
Surr: BFB		1100		949.7		115	84	116	0	U		

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantitation limits

RPD outside accepted recovery limits

Analyte detected in the associated Method Blank B

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit Reporting Detection Limit

Page 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1208182

08-Aug-12

Client:

Animas Environmental Services

0.047

0.095

1.1

3.3

1.0

0.9497

2.849

0.9497

Project:

COP SJ 32-9 #221

Sample ID MB-3170	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batch	ID: 317	70	R	unNo: 46	38				
Prep Date: 8/2/2012	Analysis D	ate: 8/3	3/2012	S	eqNo: 13	30928	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			
Sample ID LCS-3170	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	n ID: 31	70	F	RunNo: 46	638				
Prep Date: 8/2/2012	Analysis D	ate: 8/	3/2012	S	SeqNo: 1	30929	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.7	76.3	117			
Toluene	0.98	0.050	1.000	0	97.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.9	77	116			
Xylenes, Total	3.0	0.10	3.000	0	101	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			
Sample ID 1208045-001AMS	SampT	Гуре: М	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: BatchQC	Batcl	h ID: 31	70	F	RunNo: 4	638				
Prep Date: 8/2/2012	Analysis [	Date: 8/	/3/2012	5	SeqNo: 1	30937	Units: mg/l	<b>≺</b> g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.047	0.9497	0.004648	114	67.2	113			S
Toluene	2.0	0.047	0.9497	0.8163	123	62.1	116			S

Sample ID 1208045-001AM	ISD SampT	ype: MS	D	TestCode: EPA Method 8021B: Volatiles						
Client ID: BatchQC	Batch	ID: 317	70	F	RunNo: 4					
Prep Date: 8/2/2012	Analysis D	ate: 8/3	3/2012	S	SeqNo: 1	30938	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.047	0.9398	0.004648	100	67.2	113	13.5	14.3	
Toluene	1.8	0.047	0.9398	0.8163	103	62.1	116	10.7	15.9	
Ethylbenzene	0.94	0.047	0.9398	0	99.9	67.9	127	15.9	14.4	R
Xylenes, Total	2.8	0.094	2.820	0	99.7	60.6	134	16.5	12.6	R
Surr: 4-Bromofluorobenzene	1.0		0.9398		107	80	120	0	0	

0

0

116

116

107

#### Qualifiers:

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

67.9

60.6

80

127

134

120

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 5 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-410;

Website: www.hallenvironmental.con

Sample Log-In Check List

1 10/1/4 08/12/10	fork Order Number: 1208182
Received by/date: 00/05/12	
Logged By: Ashley Gallegos 8/3/2012 10:00:00 AM	
Completed By: Ashley Gallegos 8/3/2012 10:20:13 AM	A CONTRACTOR OF THE PARTY OF TH
Reviewed By: 12 08/08/12	
Chain of Custody	
1. Were seals intact?	Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete?	Yes ✓ No ☐ Not Present ☐
3. How was the sample delivered?	Courier
Log In	
4. Coolers are present? (see 19. for cooler specific information)	Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples?	Yes ☑ No □ NA □
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes □ No ☑ NA □
	Not required
7. Sample(s) in proper container(s)?	Yes Mo L
8. Sufficient sample volume for indicated test(s)?	Yes M No
9. Are samples (except VOA and ONG) properly preserved?	Yes No L
10. Was preservative added to bottles?	Yes □ No ☑ NA □
11, VOA vials have zero headspace?	Yes No No VOA Vials
12. Were any sample containers received broken?	Yes No 🗹
Does paperwork match bottle labels?  (Note discrepancies on chain of custody)	Yes ✓ No ☐ # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes ✓ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✓ No ☐ Adjusted?
16. Were all holding times able to be met?	Yes ☑ No □
(If no, notify customer for authorization.)	Checked by:
Special Handling (if applicable)	Yes □ No □ NA 🗹
17. Was client notified of all discrepancies with this order?	TES LI NO LI NA LI
Person Notified: Date:	
By Whom: Via:	eMail Phone Fax In Person
Regarding:	
Client Instructions:	
18. Additional remarks:	
19. Cooler Information	H. C. 그리고 있었다니까 보다 보다면 하나를
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date Signed By
1 7.0 Good Yes	

Chain-of-Custody Record				Turn-Around		Same	Day												NT/	AL RY
	tnim	as En	vironmente	Project Name	© Rush : 32-9 \$	MINZ	July											I NAME OF		
	Surv	ies 1	LC	1 10,000 1 10.110								ww.ha								
Mailing	Address	6247	E. Comanche	COP 51	32-9 \$	+221		1 -	490	1 Ha	wkins	NE								
			UM 87401	Project #:				Tel. 505-345-3975 Fax 505-345-4107  Analysis Request								147/5/2				
Phone #	150	156	1-2281										7			uest				
email or		) = +		Project Manager:				1	\ <u>\frac{1}{2}</u>	sel				04)	w					
QA/QC F		la přod						802	as o					24,5	PCB's					
X Stan			☐ Level 4 (Full Validation)	D. Watson				I	98	Gas				2,P(	12 P					
Accredi	tation		***	Sampler: H.	Woods			+ TMB's (8021)	문원	98	9	<u> </u>		155 155	808					2 io
□ NEL	AP .	□ Othe	r	One Lie	Jan Belley			1	+ 5	301	418	PA	8	NG.	es/		OA O			5
□ EDD	(Type)			Sample-Tem	odjatnica viji				TBE	po	por ]	A or	Aeta	0	licid	(A)	ni-V			0
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		Allanio-	BTEX + MEE	BTEX + MTBE + TPH (Gas only)	PH Meth	TPH (Method 418.1)	8310 (PNA or PAH)	CRA 8 N	Anions (F,C) NO3, NO2, PO4, SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)			Air Rubbles
8/2/12	1059	Soil	SC-I	MeOH W.+ 2 402, Ja-5	Meoti-		001	X	1	X		П		×	L	-		二	$\perp$	
San Assert Control of Control		. ° . i			e =	ed .														
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Date: 5/2/12 Date:	Time:	Relinquish Relinquish	ether M. Woods	Received by:	ne Whe	Date Date	Time	W	marks	133	610	9			· le	1	D 1	KAI	TLU	U SS
3/2/12	1547	AN CON	wither the Land or the crit	Mulle (	The A	8/03/1c	2 18:00 mes se notine of th	Su ie nnee	puru shilitu A	nu ent		arry oted de					-	es s		.30.4

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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

# Release Notification and Corrective Action

	OPERATOR	X	Initial Report   Final Report						
Maine of Company During Con Resources	Contact Kenny Davis								
Address 3401 East 30 <sup>th</sup> St. Farmington, NM	Telephone No.(505) 599-4045								
Facility Name: San Juan 32-9 Unit 221	Facility Type: Gas Wel	1							
	-11	I	Lease No. SF-078389-A						
Surface Owner Federal Mineral Owner F	rederal Lease No. 51-070505 11								
LOCATION	OF RELEASE								
	South Line Feet from t	he East/West 1	Line County						
Unit Letter Section Township Range Feet from the North/ M 11 31N 10W 795 South	1170	West	San Juan						
IVI III DAN 2011	Longitude_107.8562	6000							
NATURE	OF RELEASE								
Type of Release BGT Closure Summary	Volume of Release N/.		lume Recovered N/A						
Source of Release: NONE	Date and Hour of Occu	rrence N/A   Dat	te and Hour of Discovery N/A						
Was Immediate Notice Given?	If YES, To Whom?								
☐ Yes ☐ No ☒ Not Required	N/A								
By Whom? N/A	Date and Hour N/A								
Was a Watercourse Reached?	If YES, Volume Impac	ting the Watercou	irse.						
N/A ☐ Yes ☒ No	N/A								
1 D 2 Pollok									
If a Watercourse was Impacted, Describe Fully.*									
N/A									
Describe Cause of Problem and Remedial Action Taken.*	C	Constituents Ex	ceed Standards outline						
N/A	<b>I</b>		NMAC. Please submit a						
	<b>I</b>	•	under 19.15.29 NMAC						
	Ľ		411461 10:10:20 11111110						
Toleran *									
Describe Area Affected and Cleanup Action Taken.*  BGT Closure: NO RELEASE FOUND UPON REMOVAL									
BG1 Closure: NO RELEASE FOOND OF ON REINFO (112)									
			An (OCDl and						
I hereby certify that the information given above is true and complete to	the best of my knowledge	and understand the	hat pursuant to NMOCD rules and						
	nontreations and nerrorin	COHECUIVE actions	101 Teleases willen may endanger						
The second of a C 1/1 ten ort by t	he NIVII II II Marketi as F	mai renout does	HOLICITE VE THE OPERATOR OF HABITA						
should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report	tte contamination that pos	tor of responsibili	ty for compliance with any other						
or the environment. In addition, NMOCD acceptance of a C-141 report	does not reneve the opera	tor or responsion							
federal, state, or local laws and/or regulations.	OII (	ONSERVA	TION DIVISION						
	OIL (	JOHOLIK VA	I TO						
Signature:									
Signature.	Approved by District Su	mervisor:							
Printed Name: Kenny Davis	Approved by Bisaret Be	7							
Times Trainer States	N 100 00 00								
Title: Staff Regulatory Technician	Approval Date:	Exp	piration Date:						
	0 100 01 1	-	arrada.						
E-mail Address: Kenny.r.davis@conocophillips.com	Conditions of Approval	į	Attached						
Date: 12/5/14 Phone: (505) 599-4045									
* Attach Additional Sheets If Necessary									

