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.

12814		Pit, Be	low-Grade	<u> Tank, or</u>	<b>RECEIVED</b> By OCD at 11:07 am, Mar 25, 2015
45-10484	Propos	sed Alternative Met	hod Permit o	or Closure Plan Appli	<u>cation</u>
Please be advised	Type of action:  or proposed alter  Instructions: Plea	Below grade tank regis Permit of a pit or proposed Closure of a pit, below Modification to an exis Closure plan only submit are submit one application (Formula 1997)	tration osed alternative m -grade tank, or pr sting permit/or re nitted for an exist  orm C-144) per ind	nethod roposed alternative method gistration ring permitted or non-permitted fividual pit, below-grade tank or	ed pit, below-grade tank,  alternative request
1					
	BOX 4289, Farming				
	name: QUINN 1				
		CD Permit Number:			
		on 20 Township 31N Range			
Center of Prop	sed Design: Latitud	e <u>36.88040 •N</u> Longitude	107.70450 <u>"</u> W	NAD: □1927 🛛 1983	
Surface Owner	Federal State	e ⊠ Private ☐ Tribal Trust or	Indian Allotment		_
2.					
Pit: Substance:  Temporary: Permanent Lined String-Reir	Unlined Liner type	over Cavitation P&A Multi-V : Thicknessmil LLE	OPE ☐ HDPE ☐	Closed Prior to Closument Low Chloride I  PVC  Other me:bbl Dimensions: L	Orilling Fluid □ yes □ no
				Constituents Exceed	
3.   Relow-gra	de tank: Subsectio	n I of 19.15.17.11 NMAC			
		bbl Type of fluid:	Produced Water	by 19.15.17.13 NMA	
	tion material:			separate C-141 und	er 19.15.29 NMAC
Secondary	containment with le	ak detection   Visible sidev	valls, liner, 6-inch l	ift and automatic overflow shut-	off
☐ Visible si	lewalls and liner	Visible sidewalls only \( \square\) Or	ther		
Liner type: T	nickness 4	nil HDPE	☐ PVC ☐ Othe	r <u>LLDPE</u>	
4. Alternativ	e Method:				
Submittal of a	n exception request i	s required. Exceptions must b	e submitted to the	Santa Fe Environmental Bureau	office for consideration of approval.
5					
Fencing: Sul	esection D of 19.15.1	7.11 NMAC (Applies to perma	nent pits, tempora	y pits, and below-grade tanks)	
☐ Chain link	, six feet in height, tv	vo strands of barbed wire at top	(Required if locat	ed within 1000 feet of a permane	nt residence, school, hospital,
institution or	church)				
l .		of barbed wire evenly spaced be	aween one and rou	. 1001	
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)	
<ul> <li>Signs: Subsection C of 19.15.17.11 NMAC</li> <li>☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers</li> <li>☐ Signed in compliance with 19.15.16.8 NMAC</li> </ul>	
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 accepaterial 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
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. ( <b>Does not apply to below grade tanks</b> )  - 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
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ 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.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  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	į						
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							
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						
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Natructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the docattached.  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. and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	O NMAC .15.17.9 NMAC						
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 do 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 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: or Permit Number:	9.15.17.9 NMAC						

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	
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 Fl 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	luid Management Pit
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. F 19.15.17.10 NMAC for guidance.	rce material are Please refer to
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	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ 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 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. □ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19. □ 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 cann □ 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	11 NMAC 15.17.11 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 believes	ef.
Name (Print): Title:	
Signature: Date:	
e-mail address: Telephone:	
18.  OCD Approval: Permit Application (including closure plan) Closure Plan (only) COD Conditions (see attachment)	front page
OCD Representative Signature: Approval Date:	May 22, 2015
Title: Environmental Specialst  OCD Permit Number:	
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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date: 1/2/2014	the closure report. complete this
20.	
Closure Method:  ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-logical of the different from approved plan, please explain.	oop systems only)
21. <u>Closure Report Attachment Checklist</u> : <u>Instructions</u> : Each of the following items must be attached to the closure report. Please in	

22.
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): Denise Journey Title: Staff Regulatory Technician
Signature: Date: 3/19/15
e-mail address: Denise.Journey@conocophillips.com Telephone: (505) 326-9556

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

Lease Name: QUINN #1 API No.: 30-045-10484

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 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 19.15.17.13 (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.



www.animasenvironmental.com

624 E. Comanche

505-564-2281

Durango, Colorado 970-403-3084

Farmington, NM 87401

February 5, 2014

Lisa Hunter
ConocoPhillips
San Juan Business Unit
Office 214-04
5525 Hwy 64
Farmington, New Mexico 87401

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

**RE:** Below Grade Tank Closure Report

Quinn #1

San Juan County, New Mexico

Dear Ms. Hunter:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) Quinn #1, 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 – Quinn #1

Legal Description – NW¼ SW¼, Section 20, T31N, R8W, San Juan County, New Mexico Well Latitude/Longitude – N36.88069 and W107.70409, respectively BGT Latitude/Longitude – N36.88040 and W107.70450, respectively Land Jurisdiction – Private

Land Julisdiction - Frivate

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, January 2014

# 1.2 NMOCD Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), the location was given a ranking score of 0 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report dated May 1991 for the Quinn #339, located approximately 450 northwest of the location and at a similar elevation, reported the depth to groundwater at 270 feet below ground surface (bgs). (0 points)
- Wellhead Protection Area: The tank location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: No down-gradient surface water bodies are within 1,000 feet of the location. (0 points)

# 1.3 BGT Closure Assessment

AES was initially contacted by Steve Welch, CoP representative, on January 2, 2014, and on January 3, 2014, Heather Woods and Jesse Christopherson of AES mobilized to 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 January 3, 2014, 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 were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). Soil composite sample SC-1 was field screened for VOCs and chloride and was 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 composite 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;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D; and
- Chloride per USEPA Method 300.0.

# 2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 0.2 ppm in S-4 up to 0.6 ppm in SC-1. Field TPH concentrations ranged from less than 20.0 mg/kg in S-4 up to 135 mg/kg in S-5. The field chloride concentration in SC-1 was 100 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
Ouinn #1 BGT Closure, January 2014

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	1/3/14	0.5	0.5	75.8	NA
S-2	1/3/14	0.5	0.3	105	NA
S-3	1/3/14	0.5	0.4	40.3	NA
S-4	1/3/14	0.5	0.2	<20.0	NA
S-5	1/3/14	0.5	0.3	135	NA
SC-1	1/3/14	0.5	0.6	NA	100

NA - not analyzed

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as less than 0.033 mg/kg and 0.164 mg/kg, respectively. TPH concentrations as GRO and DRO were reported at less than 3.3 mg/kg and 10.0 mg/kg, respectively. 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. The laboratory analytical report is attached.

Table 2. Soil Laboratory Analytical Results
Ouinn #1 BGT Closure, January 2014

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
Sumple ID	NMOCD Act	ion Level	0.2	50	1	00	250
SC-1	1/3/2014	0.5	<0.033	<0.164	<3.3	<10	<30

NA - not analyzed

# 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-2 (105 mg/kg) and S-5 (135 mg/kg), respectively. However, laboratory analytical results for TPH (as GRO/DRO) in SC-1 were reported below the NMOCD action level of 100 mg/kg. Benzene and total BTEX concentrations in SC-1 were below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations in SC-1 were also below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended at Quinn #1.

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

Sincerely,

David J. Reese

**Environmental Scientist** 

David & Reme

Lisa Hunter Quinn #1 BGT Closure Report February 5, 2014 Page 5 of 5

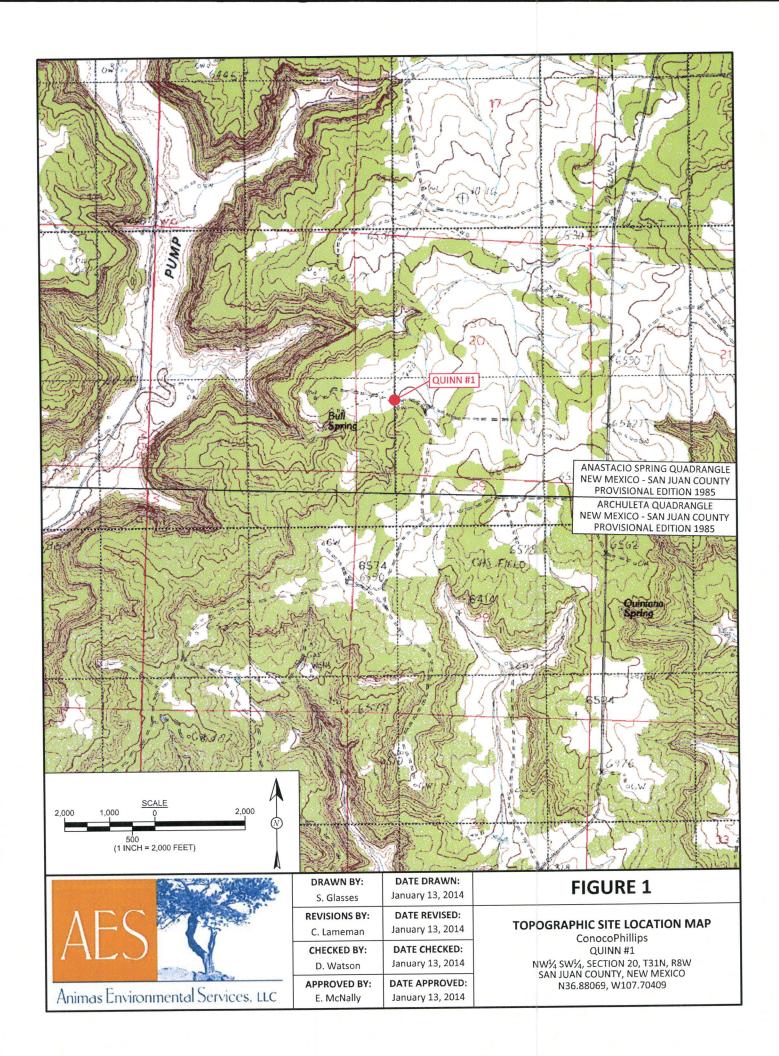
Elizabeth V McNelly

Elizabeth McNally, P.E.

# Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, January 2014 AES Field Screening Report 010314 Hall Analytical Report 1401096

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\Quinn #1\Quinn #1 BGT Closure Report 020514.docx





	Field Scr	eening Re	esults	-
Sample ID	Date	OVM- PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACT	TION LEVEL		100	250
S-1	1/3/14	0.5	75.8	NA
S-2	1/3/14	0.3	105	NA
S-3	1/3/14	0.4	40.3	NA
S-4	1/3/14	0.2	<20.0	NA
S-5	1/3/14	0.3	135	NA
SC-1	1/3/14	0.6	NA	100
SC-1 IS A 5-PC	OINT COMP	OSITE SAI	MPLE OF S	-1

Laboratory Analytical Results Benzene Sample ID (mg/kg) (mg/kg) NMOCD ACTION LEVEL < 0.033 1/3/14 AMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015D AND 300.0.

THROUGH S-5. NA - NOT ANALYZED

10 (1 INCH = 40 FEET) Animas Environmental Services, LLC

AERIA	L SOURCE: © 2013 GOO	GLE EARTH, AERIAL DATE	: MAY 2, 2013
re .	DRAWN BY: S. Glasses	DATE DRAWN: January 13, 2014	
	REVISIONS BY: C. Lameman	DATE REVISED: January 13, 2014	
	CHECKED BY: D. Watson	DATE CHECKED: January 13, 2014	
C	APPROVED BY: E. McNally	DATE APPROVED: January 13, 2014	

# FIGURE 2 **AERIAL SITE MAP** BELOW GRADE TANK CLOSURE **JANUARY 2014**

ConocoPhillips QUINN #1 NW¼ SW¼, SECTION 20, T31N, R8W SAN JUAN COUNTY, NEW MEXICO N36.88069, W107.70409

# **AES Field Screening Report**

Client: ConocoPhillips

Project Location: Quinn #1

Date: 1/3/2014

Matrix: Soil



Animas Environmental Services, LLC www.animasenvironmental.com 624 E. Comanche Farmington, NM 87401 505-564-2281

970-403-3084 Durango, Colorado

TPH Analysts	Initials	НММ	НММ	НММ		HMW	НММ		
	占	1	1	Н		1	1	На	
TPH PQL	(mg/kg)	20.0	20.0	20.0		20.0	20.0	Not Analyzed for TPH	
Field TPH*	(mg/kg)	75.8	105	403	200	16.5	135	YON	302
Field TPH Analysis	Time	11:26	11:28	11.31	10:11	11:32	11:34		
Field	(mg/kg)	NA	ΑN	VIV.	12	NA	AN	100	
MVO	(mdd)	0.5	0.3		4.0	0.2	0.3		-
Sample	Location	North	Sourth		East	West	Center		0+1000000
Time of	Collection	10.45	37.01	10.10	10:47	10.48	10:40	10.43	-
coitrallog	Date	1/2/2011	1/3/2014	1/3/5014	1/3/2014	1/3/2014	1/3/2011	1/3/2014	
	Sample ID		1-C	2-5	S-3	V 3	† C	۲-5	

Field Chloride - Quantab Chloride Titrators or Drop Count

Total Petroleum Hydrocarbons - USEPA 418.1 Titration with Silver Nitrate

Analyst:

\*Field TPH concentrations recorded may be below PQL. PQL

Practical Quantitation Limit

Not Detected at the Reporting Limit

ND NA

Dilution Factor Not Analyzed Heather M. Wood

Report Finalized: 1/3/14



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

January 09, 2014

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

FAX

RE: COP Quinn #1

OrderNo.: 1401096

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/4/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

# **Analytical Report**

# Lab Order 1401096

Date Reported: 1/9/2014

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental

Project: COP Quinn #1

1401096-001 Lab ID:

Client Sample ID: SC-1

Collection Date: 1/3/2014 10:51:00 AM

Received Date: 1/4/2014 10:20:00 AM

Analyses	Result	RL Qu	al Units	DF I	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/6/2014 11:04:13 AM	11080
Surr: DNOP	85.1	66-131	%REC	1	1/6/2014 11:04:13 AM	11080
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	1/6/2014 3:57:53 PM	R15910
Surr: BFB	83.1	74.5-129	%REC	1	1/6/2014 3:57:53 PM	R15910
EPA METHOD 8021B: VOLATILES					Analyst	:: NSB
Benzene	ND	0.033	mg/Kg	1	1/6/2014 3:57:53 PM	R15910
Toluene	ND	0.033	mg/Kg	1	1/6/2014 3:57:53 PM	R15910
Ethylbenzene	ND	0.033	mg/Kg	1	1/6/2014 3:57:53 PM	R15910
Xylenes, Total	ND	0.065	mg/Kg	1	1/6/2014 3:57:53 PM	R15910
Surr: 4-Bromofluorobenzene	93.9	80-120	%REC	1	1/6/2014 3:57:53 PM	R15910
EPA METHOD 300.0: ANIONS					Analys	t: JRR
Chloride	ND	30	mg/Kg	20	1/6/2014 11:41:34 AM	11089

Matrix: SOIL

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

# Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery 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
  - Page 1 of 5
  - Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1401096 09-Jan-14

Client:

**Animas Environmental** 

Project:

COP Quinn #1

Sample ID MB-11089

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Prep Date:

Chloride

Batch ID: 11089

RunNo: 15918

Analysis Date: 1/6/2014

SeqNo: 458986

Units: mg/Kg

HighLimit

Result Analyte

1/6/2014

**PQL** ND 1.5 SPK value SPK Ref Val %REC LowLimit

%RPD **RPDLimit**  Qual

Sample ID LCS-11089

SampType: LCS

TestCode: EPA Method 300.0: Anions

Batch ID: 11089

RunNo: 15918

Prep Date: 1/6/2014 Analysis Date: 1/6/2014

SeqNo: 458987

Units: mg/Kg

Client ID: LCSS

%REC LowLimit

HighLimit

**RPDLimit** Qual %RPD

SPK value SPK Ref Val Result **PQL** Analyte 110 93.3 14 1.5 15.00 Chloride

#### **Qualifiers:**

Value exceeds Maximum Contaminant Level.

Value above quantitation range E

Analyte detected below quantitation limits

RSD is greater than RSDlimit o

RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample pH greater than 2 for VOA and TOC only.

Reporting Detection Limit

Page 2 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1401096

09-Jan-14

Client:

**Animas Environmental** 

Project:

COP Quinn #1

Sample ID MB-11080	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics						
Client ID: PBS	Batch	1D: 11	080	F	RunNo: 1	5891				
Prep Date: 1/6/2014	Analysis D	ate: 1/	6/2014	SeqNo: 458449			Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10						·		
Surr: DNOP	8.3		10.00		82.9	66	131			
Sample ID LCS-11080	SampT	ype: LC	s	TestCode: EPA Method 8015D: Diesel Range C					Organics	
Client ID: LCSS	Batcl	1D: <b>11</b>	080	RunNo: 15891						
Prep Date: 1/6/2014	Analysis D	ate: 1/	6/2014	\$	SeqNo: 4	58450	Units: mg/h	<b>(</b> g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	60.8	145			
Surr: DNOP	4.5		5.000		90.0	66	131			

# Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 3 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1401096

09-Jan-14

Client:

Animas Environmental

Sample ID   2.5UG GRO   SampType: LCS   TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS   Batch ID: R15910   RunNo: 15910   RunNo: 15910   RunRo: MREC   LowLimit   HighLimit   MRPD   RPE Client ID: SC-1   Batch ID: R15910   RunNo: 15910   RunNo: 15910   RunRo: MREC   LowLimit   HighLimit   MRPD   Result   PQL   SPK value   SPK Ref Val   MREC   LowLimit   HighLimit   MRPD   Result   Result   PQL   SPK value   SPK Ref Val   MREC   LowLimit   HighLimit   MRPD   Ref Val   RunRo: MREC   RunRo:					7					ın #1	COP Quir	Project:
Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458752         Units:         mg/kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Sacoline Range Organics (GRO)         ND         5.0         87.1         74.5         129         74.5         129           Sample ID         2.5UG GRO LCS         SampType:         LCS         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         LCSS         Batch ID:         R15910         RunNo:         15910         15910         RunNo:         15910         15910         RunNo:         <		SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range									5ML RB	Sample ID
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPD Sample ID 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Crganics (GRO) Batch ID: R15910 RunNo: 15910					10	unNo: <b>15</b>	R	5910	ID: <b>R1</b>	Batch	PBS	Client ID:
Sample   D   2.5UG GRO   LCS   SampType: LCS   TestCode: EPA Method   8015D: Gasoline Range			g	Units: mg/K	752	eqNo: <b>45</b>	s	6/2014	ate: 1/6	Analysis D		Prep Date:
Sample ID   2.5UG GRO   SampType:   LCS   TestCode:   EPA Method   87.1   74.5   129	DLimit Qual	RPDLimit	%RPD	HighLimit	.owLimit	%REC	SPK Ref Val	SPK value	PQL	Result		Analyte
Sample ID 2.5UG GRO LCS         SampType: LCS         TestCode: EPA Method 8015D: Gasoline Range           Client ID:         LCSS         Batch ID:         R15910         RunNo: 15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo: 458753         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         25         5.0         25.00         0         102         74.5         126           Surr: BFB         920         1000         91.6         74.5         129           Sample ID 1401096-001AMS         SampType: MS         TestCode: EPA Method 8015D: Gasoline Range           Client ID:         SC-1         Batch ID: R15910         RunNo: 15910           Prep Date:         Analysis Date: 1/6/2014         SeqNo: 458756         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPE           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145			_						5.0	ND	e Organics (GRO)	<u>-</u>
Client ID: LCSS   Batch ID: R15910   RunNo: 15910   RunNo: 15910				129	74.5	87.1		1000		870		Surr: BFB
Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458753         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         25         5.0         25.00         0         102         74.5         126           Surr: BFB         920         1000         91.6         74.5         129           Sample ID 1401096-001AMS         SampType:         MS         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458756         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method         8015D:         Ga		е	line Range	8015D: Gaso	Method	Code: EP	Test	S	ype: LC	SampT	2.5UG GRO LCS	Sample ID
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         25         5.0         25.00         0         102         74.5         126           Surr: BFB         920         1000         91.6         74.5         129           Sample ID 1401096-001AMS         SampType: MS         TestCode: EPA Method 8015D: Gasoline Range           Client ID:         SC-1         Batch ID: R15910         RunNo: 15910           Prep Date:         Analysis Date: 1/6/2014         SeqNo: 458756         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPE           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID 1401096-001AMSD         SampType: MSD         TestCode: EPA Method 8015D: Gasoline Range           Client ID:         SC-1         Batch ID: R15910         RunNo: 15910           Prep Date:         Analysis Date:					10	unNo: 15	R	5910	i ID: <b>R1</b>	Batch	LCSS	Client ID:
Claim   Clai			g	Units: mg/K	753	eqNo: 45	S	6/2014	ate: 1/0	Analysis D		Prep Date:
Surr: BFB 920 1000 91.6 74.5 129  Sample ID 1401096-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range Client ID: SC-1 Batch ID: R15910 RunNo: 15910  Prep Date: Analysis Date: 1/6/2014 SeqNo: 458756 Units: mg/Kg  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPD Gasoline Range Organics (GRO) 16 3.3 16.29 0 98.2 69.5 145  Surr: BFB 600 651.5 92.0 74.5 129  Sample ID 1401096-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Client ID: SC-1 Batch ID: R15910 RunNo: 15910  Prep Date: Analysis Date: 1/6/2014 SeqNo: 458757 Units: mg/Kg  Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPD Gasoline Range Organics (GRO) 15 3.3 16.29 0 93.0 69.5 145 5.52	DLimit Qual	RPDLimit	%RPD	HighLimit	_owLimit	%REC	SPK Ref Val	SPK value	PQL	Result		Analyte
Sample ID         1401096-001AMS         SampType:         MS         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458756         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit					74.5	102	0	25.00	5.0	25	ge Organics (GRO)	Gasoline Rang
Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458756         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPL           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5				129	74.5	91.6		1000		920		Surr: BFB
Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458756         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPI           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52		е	line Rang	8015D: Gaso	Method	Code: EF	Test	3	ype: MS	SampT	1401096-001AMS	Sample ID
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         16         3.3         16.29         0         98.2         69.5         145           Surr: BFB         600         651.5         92.0         74.5         129           Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method         8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPI           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52					10	unNo: <b>1</b> 5	R	5910	า ID: <b>R1</b>	Batch	SC-1	Client ID:
Analyte         Result         PQL         SFK Value			Kg	Units: mg/K	756	eqNo: 4	S	6/2014	)ate: 1/	Analysis D		Prep Date:
Surr: BFB         600         651.5         92.0         74.5         129           Sample ID 1401096-001AMSD SampType: MSD         TestCode: EPA Method 8015D: Gasoline Range           Client ID: SC-1         Batch ID: R15910         RunNo: 15910           Prep Date: Analysis Date: 1/6/2014         SeqNo: 458757         Units: mg/Kg           Analyte         Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPI           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52	DLimit Qual	RPDLimit	%RPD	HighLimit	LowLimit	%REC	SPK Ref Val	SPK value	PQL	Result		Analyte
Sample ID         1401096-001AMSD         SampType:         MSD         TestCode:         EPA Method 8015D:         Gasoline Range           Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPL           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52				145	69.5	98.2	0	16.29	3.3	16	ge Organics (GRO)	Gasoline Rang
Client ID:         SC-1         Batch ID:         R15910         RunNo:         15910           Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPI           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52				129	74.5	92.0		651.5		600		Surr: BFB
Prep Date:         Analysis Date:         1/6/2014         SeqNo:         458757         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPD           Gasoline Range Organics (GRO)         15         3.3         16.29         0         93.0         69.5         145         5.52		je	oline Rang	8015D: Gaso	A Method	Code: EF	Tes	SD	ype: MS	D SampT	1401096-001AMS	Sample ID
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPD Gasoline Range Organics (GRO) 15 3.3 16.29 0 93.0 69.5 145 5.52					10	tunNo: 1	F	5910	n ID: <b>R1</b>	Batcl	SC-1	Client ID:
Gasoline Range Organics (GRO) 15 3.3 16.29 0 93.0 69.5 145 5.52			<b>(</b> g	Units: mg/K	3757	eqNo: 4	8	6/2014	)ate: 1/	Analysis E		Prep Date:
Gasoline Range Organics (GRO)		RPDLimit			LowLimit	%REC	SPK Ref Val	SPK value	PQL	Result		Analyte
007 745 100 0	20	•		· · · · · · · · · · · · · · · · · · ·		93.0	0	16.29	3.3	15	ge Organics (GRO)	<del>-</del>
Surr: BFB 600 651.5 92.7 74.5 129 0	^	0	0	129	74.5	92.7		651.5		600		Surr: BFB

# Qualifiers:

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Page 4 of 5

P Sample pH greater than 2 for VOA and TOC only.

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1401096

09-Jan-14

Client:

Animas Environmental

**Project:** 

COP Quinn #1

Sample ID 5ML RB	SampType: MBLK  Batch ID: R15910  Analysis Date: 1/6/2014			Test	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS				F	RunNo: 1	5910					
Prep Date:				SeqNo: 458865			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		101	80	120				

Sample ID 100NG BTEX LC	S SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch	1D: <b>R1</b>	5910	F	RunNo: 1	5910					
Prep Date:	Analysis D	Analysis Date: 1/6/2014			SeqNo: 458866			<b>(</b> g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.050	1.000	0	105	80	120				
Toluene	1.1	0.050	1.000	0	105	80	120				
Ethylbenzene	1.0	0.050	1.000	0	102	80	120				
Xylenes, Total	3.2	0.10	3.000	0	106	80	120				
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120				

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 5 of 5



# Hall Environmental Analysis Laboratory 4901 Hawkim HE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallouvironmental.com

# Albuquerpus, NM 87109 Sample Log-In Check List

Client Name: Animee Environmental Work Order Number	or: 1401 <b>006</b>		Reptito: 1	
leceived by Note: AF 0/64/14				
ogged By: Anne Thorne 1/4/2014 10:20:00 A	W	an In		
Completed By: Anne Thorne 1/8/2014		am I'm		
Performed By: AT 01106/14				
hein of Custody				
1. Custody seeks 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			
Loa In				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	NA 🗆	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yee 🗹	No 🗆	NA 🗆	
6. Sample(s) in proper container(s)?	Yee 🗹	No 🗆		
7 Sufficient semple volume for indicated teet(s)?	Yes 🗹	No 🗆		
8. Are samples (succept VOA and ONG) properly preserved?	Yes 🗹	No 🗆		
9. Was preservative added to bottles?	Y00 🗆	No 🗹	MA 🗆	
10.VOA visis have zero headspace?	Yes 🛚	No 🗆	No VOA Viele 🗹	
11. Were any sample containers received broken?	Yes 🗆	No 🗹	# of preserved	
			bottles checked	
12. Does paperwork match bottle labels?	Yes 🗹	No L.J	for pH:	>12 unless not
(Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of Custody?	Yes Z	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗆	·	
15. Were all holding times able to be met?	Yes 🗹	No 🗆	Checked by:	
(If no, notify customer for authorization.)				
Special Handling (If applicable)				
16. Was client notified of all discrepancies with this order?	Yes 🗆	No 🗆	NA 🗵	
Person Notified: Dete				
By Whom: Vie:	O eMeli O	Phone Fax	☐ In Person	
Regarding:				
Client Instructions:				
17. Additional remarks:				
18. Cooler Information				
1 4.9 Good Yes			]	

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

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

Form C-141 Revised August 8, 2011

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

			Rele	ease Notific	ation	and Co	rrective A	ction	l					
			OPERATOR							port				
Name of Co	mpany Bi	urlington Res	sources			Contact Denise Journey								
		O <sup>th</sup> St., Farmi		M 87402	-	Telephone No. 505-326-9556								
Facility Nar	ne QUINI	N #1			]	Facility Typ	e Gas Well							
Surface Ow	ner Tribal	Federal		Mineral O	wner	Federal / L	ease # SF-0785	11	API No.	30-045-1	10484			
				LOCA	TION	OF REI	LEASE							
Unit Letter	Section	Township	Range	Feet from the	North/	th/South Line   Feet from the   Ea			West Line		Coun	ty		
L	20	31N	08W	1650	9	South	990	,	West		San Ju	ıan		
				Latitude 36	.88040	_ Longitud	le <u>-107.70450</u>							
				NAT	URE	OF REL	EASE							
Type of Rele	ase NONE	BGT CLO	SURE SU		0112		Release N/A		Volume Re	ecovered	N/A			
Source of Re NONE						Date and H N/A	Iour of Occurrenc	e	Date and H	Iour of Dis	scovery	N/A		
Was Immedia	ate Notice (		Yes	] No ⊠ Not Re	quired	If YES, To N/A	Whom?							
By Whom?						Date and Hour								
Was a Water	course Reac		Yes 🗵	] No		If YES, Vo	olume Impacting t	the Wat	ercourse.					
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.*	* N/A										
		1 2 2	,		C	Constitue	ents Excee	d Sta	andards	outlin	e			
					b	v 19.15.	17.13 NM	AC. I	Please s	submit	a			
						•								
Describe Cau	ise of Probl	em and Reme	dial Action	n Taken.* N/A		cparate	O 141 dile	101 1	0.10.20	T VIVI/ (C				
Describe And	a Affactad	and Cleanup A	A ation Tal	van *										
		-												
BGT Closure	e: NO REL	EASE FOUN	D UPON 1	REMOVAL										
I haraby cart	ify that the	information of	iven above	is true and comp	lete to tl	he hest of my	knowledge and u	ındersta	nd that pursi	ant to NV	IOCD t	rules and		
regulations a	ll operators	are required t	o report ai	nd/or file certain r	elease n	otifications a	nd perform correct	ctive ac	tions for rele	ases which	n may e	ndanger		
public health	or the envi	ronment. The	acceptano	ce of a C-141 repo	ort by the	e NMOCD m	arked as "Final R	leport"	does not relie	eve the ope	erator o	f liability	1.	
should their	operations h	nave failed to	adequately	investigate and re	emediat report d	e contaminat	ion that pose a thr	respons	round water,	surface w	ater, nu with an	ıman nean v other	n	
federal, state	or local la	ws and/or regi	ulations.	nance of a C-141	report u	ocs not renev	the operator of	respons	nomity for co	пришес	With the	.j cuitei		
		. /					OIL CON	SERV	ATION	DIVISIO	NC			
Cianatura:	124	in to	V led 111											
Signature:	1) ~~	Approved by Environmental Specialist:												
Printed Nam	e: Denise.	Journey				ripproved of	Birrioninental	pecian						
Title: Staff	Regulatory	Technician				Approval Da	te:		Expiration I	Date:				
E-mail Addr	ess: Denis	e.Journey@co	nocophill	ips.com		Conditions o	f Approval:			Attached	dП			
Date: 3/19/	/15	Pho	ne: 505-3	26-9556						2 Ittuellet	- ⊔			
1 Date: 3/19/	13	FIIC	nic. 303-3	20-2330	- 1				stand that pursuant to NMOCD rules an actions for releases which may endanged does not relieve the operator of liability of ground water, surface water, human homsibility for compliance with any other actions.					

<sup>\*</sup> Attach Additional Sheets If Necessary



