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

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

Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application
Type of action: Below grade tank registration OIL CONS. DIV DIST. 3 U4302 Permit of a pit or proposed alternative method APR 12 2016 Modification to an existing permit/or registration Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank,
or proposed alternative method
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
1. Operator: ConocoPhillips Company OGRID #: 217817
Address: PO BOX 4289, Farmington, NM 87499
Facility or well name: Chacon Hill 2
API Number: <u>30-039-22136</u> OCD Permit Number:
U/L or Qtr/QtrG Section20 Township24N_Range3W_ County: Rio Arriba
Center of Proposed Design: Latitude _36.297939_•N Longitude107.176820_•W NAD: □1927 ⊠ 1983
Surface Owner: 🗌 Federal 🗋 State 🖾 Private 🗋 Tribal Trust or Indian Allotment
Pit: Subsection F, G or J of 19.15.17.11 NMAC Temporary: Drilling Workover Permanent Emergency Cavitation P&A Multi-Well Fluid Management Low Chloride Drilling Fluid yes no Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other String-Reinforced
3. Below-grade tank: Subsection L of 19 15 17 11 NMAC
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Metal
Secondary containment with leak detection 🛛 Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
□ Visible sidewalls and liner □ Visible sidewalls only □ Other
Liner type: Thickness mil HDPE PVC Other Unspecified
 Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
5.
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)
Four foot height, four strands of barbed wire evenly spaced between one and four feet
Alternate. Please specify

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"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)

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 acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - □ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells	□ Yes □ No ⊠ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No ⊠ NA
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) Written confirmation or verification from the municipality; Written approval obtained from the municipality 	Yes No
 Within the area overlying a subsurface mine. (Does not apply to below grade tanks) Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	Yes No
 Within an unstable area. (Does not apply to below grade tanks) Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society: Topographic map 	🗋 Yes 🗌 No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	🗌 Yes 🗌 No
Below Grade Tanks	1
 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
 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 initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	Yes No
10. <u>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist</u> : Subsection B of 19.15.17.9 N. <i>Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doce attached.</i> 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 19.15.17.10 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 19.1 and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:	MAC suments are 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 doc 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 19.15.17.10 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:	cuments are

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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
 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	
Dike Protection and Structural Integrity 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	
Emergency Response Plan	
 Oil Field Waste Stream Characterization Monitoring and Inspection Plan 	
Erosion Control Plan	
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 F.	luid Management Pit
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)	
Alternative Closure Method	
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be 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 More that the appropriate requirements of Subsection C of 19.15.17.13 NMAC More that the appropriate requirements of Subsection C of 19.15.17.13 NMAC More that the appropriate requirements of Subsection C of 19.15.17.13 NMAC More that the appropriate requirements of Subsection C of 19.15.17.13 NMAC More that the appropriate requirements of Subsection H of 19.15.17.13 NMAC More that the appropriate requirements of Subsection H of 19.15.17.13 NMAC Mere that the appropriate requirements of Subsection H of 19.15.17.13 NMAC Mere that the appropriate requirements of Subsection H of 19.15.17.13 NMAC More that the appropriate requirements of Subsection H of 19.15.17.13 NMAC More that the appropriate requirements of Subsection H of 19.15.17.13 NMAC	attached to the
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.	Yes No
- INVIOLITE OF the State Engineer - IWATEKS database; Visual inspection (certification) of the proposed site	Ver D 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	<u> </u>
Form C-144 Dil Conservation Division Page 4 of	b

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. * - Written confirmation or verification from the municipality; Written approval obtained from the municipality					
	Yes No				
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	Yes No				
Within an unstable area. - Engineering measures incorporated into the design: NM Bureau of Geology & Mineral Resources; USGS; NM Geological					
Society; Topographic map	Yes No				
- FEMA map	Yes No				
 ^{16.} On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC 					
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 beli	ief.				
Name (Print): Title:					
Signature: Date:					
e-mail address. Telephone:					
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)					
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Curve plan Approval Approval Date: O4 [1]	213016				
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	213016				
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: OUP Title: OCD Permit Number: OCD Permit Number: 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report 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.	the closure report.				
18. OCD Approval: Permit Application (including closur plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	the closure report. complete this				
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	the closure report. complete this				

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):	Crystal Walker		Title:	Regulatory Coord	linator		
Signature:	Got	eu	Ika	I	Date:	4/12/14	
e-mail address:	crystal.walker@cop.com	Telephone:	(505) 326-983	7	_		

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

Lease Name: Chacon Hill 2 API No.: 30-039-22136

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:

 BR shall close a below-grade tank within 60 days of cessation of operations per Subsection G.4 of 19.15.17.13 NMAC. This will include a) below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, BR will file the C144 Closure Report as required.

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

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

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

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

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

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

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

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

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

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

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

A release was determined for the above referenced well. Refer to Guidelines of Spills and Releases.

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

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

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

Notification was not found.

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

The closure process notification to the landowner was not found.

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

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

11. BR shall seed the disturbed areas the first favorable growing season following closure of a below-grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre- disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. COPC will repeat seeding or planting will be continued until successful vegetative growth occurs. Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.

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

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

- 13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
 - Soil Backfilling and Cover Installation (See Report)

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- 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)

State of New Mexico Energy Minerals and Natural Resources

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

Form C-141 Revised August 8, 2011

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

Release Notification and Corrective Action		
OPERATOR]	Initial Report

	OPERATOR	Initial Report	\boxtimes	Final Report
Name of Company ConocoPhillips Company	Contact Ashley Maxwell			
Address 3401 E. 30th St., Farmington, NM 87402	Telephone No. 505-324-5169			
Facility Name Chacon Hill #2 Facility Type Gas Well				
		 DI No. 2002022	126	

Surface Owner F	ed	era	
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Mineral Owner Federal

API No. 3003922136 SF-079456

				LOCA	TION OF REJ	LEASE		
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	20	024N	003W	1850'	North	1850'	East	Rio Arriba

Latitude<u>36.297988</u>Longitude<u>-107.17658</u>

NATURE OF RELEASE

		Same at the second					
Type of Release Production Fluids	Volume of Release	Volume Re	covered				
	Unknown	474 yus	- fDiseasons				
Source of Release Below Grade Tank	Date and Hour of Occurrence	Date and H	our of Discovery				
	9/10/2012						
Was Immediate Notice Given?	If YES, To Whom?						
Ves No Not Required							
By Whom?	Date and Hour						
1 S. T. T. T. Namerica (2011) - 1.1.1							
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.					
TYes No							
If a Watercourse was Impacted, Describe Fully.*							
Describe Cause of Problem and Remedial Action Taken.* Below Grade	le Tank Closure Activities						
Describe Area Affected and Cleanup Action Taken.*							
Excavation was required based on NMOCD Guidelines for Remediat	ion of Leaks, Spills and Releases. T	he excavation	n was 30'X40'X11' and				
492 yds ³ of soil was transported to a third party land farm. Excavation and confirmation sampling occurred. Analytical results were							
below the regulatory standards set forth by NMOCD action levels; therefore no further action is needed.							
below the regulatory standards set form by NiviOCD action levels, therefore no further action is needed.							
the test of the second second second second second second second understand that pursuant to NMOCD rules and							
I hereby certify that the information given above is true and complete to t	atifications and perform corrective ac	ctions for relea	uses which may endanger				
regulations all operators are required to report and/or file certain release f	- NMOCD mented as "Einal Denort"	does not relia	ve the operator of liability				
public health or the environment. The acceptance of a C-141 report by the	le NIVIOCD marked as Filial Report	ubes not rene	aurfage water human health				
should their operations have failed to adequately investigate and remediate	te contamination that pose a threat to	ground water,	surface water, numan nearm				
or the environment. In addition, NMOCD acceptance of a C-141 report of	loes not relieve the operator of respon	isibility for con	inpriance with any other				
federal, state, or local laws and/or regulations.							
	OIL CONSER	OIL CONSERVATION DIVISION					
Signature: Sell			-				
0							
	Approved by Environmental Speciali	ist:					
Drinted Name: Ashley Maxwell	Approved by Environmental Special						
Finicu Ivanic, Asincy Maxwell							
Tid - D' 11 Funimental Specialist	Approval Date:	Expiration D	ate:				
Title: Field Environmental Specialist	rippio fui Duto.						
	Conditions of Approval:						
E-mail Address: ashley.p.wethington@conocopnilips.com	Conditions of Approval: Attached						
Date January 4, 2013 Phone: 505-324-5169							

* Attach Additional Sheets If Necessary



Animas Environmental Services, LLC

December 28, 2012

Farmington, New Mexico 87401

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

RE: Initial Release Assessment and Final Excavation Report Chacon Hill #2 Rio Arriba County, New Mexico

Dear Ms. Maxwell:

Ashley Maxwell

ConocoPhillips

Office 216-2

5525 Hwy 64

San Juan Business Unit

On August 7 and September 11, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Chacon Hill #2, located in Rio Arriba County, New Mexico. The historical release was associated with the below grade tank (BGT) at the location. The initial release assessment was completed by AES on August 7, 2012. The final excavation was completed by contractors while AES was on location on September 11, 2012.

1.0 Site Information

1.1 Location

Location – SW¼ NE¼, Section 20, T24N, R3W, Rio Arriba County, New Mexico Well Head Latitude/Longitude – N36.29802 and W107.17717, respectively Release Location Latitude/Longitude – N36.29794 and W107.17682, respectively Land Jurisdiction – Private 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 Pit Site Assessment form dated April 1996 for the Chacon Hill #2 reported the depth to groundwater at less than 50 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

Ashley Maxwell Chacon Hill #2 Initial Release Assessment and Final Excavation Report December 28, 2012 Page 2 of 7

Recovery Research Center online mapping tool (<u>http://ford.nmt.edu/react/project.html</u>) 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 less than 50 feet bgs. The wash in Medio Canyon is located approximately 530 feet southwest of the release location. 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 Assessment

AES was initially contacted by Ashley Maxwell of CoP on August 1, 2012, and on August 7, 2012, Heather Woods and Zachary Trujillo of AES completed the release assessment field work. The assessment included collection and field screening of 44 soil samples (SB-1 through SB-11) from 11 soil borings in and around the release area. Based on the field screening results, AES recommended an area of excavation. Sample locations are shown on Figure 3.

On September 11, 2012, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of seven confirmation soil samples (SC-1 through SC-7) of the walls and base of the excavation. The area of the final excavation was approximately 880 ft² by 12 feet in depth. Sample locations and final excavation extents are shown on Figure 4.

2.0 Soil Sampling

A total of 44 soil samples from 11 soil borings (SB-1 through SB-11) and 7 composite samples (SC-1 through SC-7) were collected during the release assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Two composite samples (SC-6 and SC-7) collected during the excavation clearance were submitted for laboratory analysis.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

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

Ashley Maxwell Chacon Hill #2 Initial Release Assessment and Final Excavation Report December 28, 2012 Page 3 of 7

2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed 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.

2.2 Laboratory Analyses

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

 TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

2.3 Field Screening and Laboratory Analytical Results

On August 7, 2012, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 1.5 ppm in SB-3 up to 4,110 ppm in SB-1. Field TPH concentrations ranged from 94.6 mg/kg in SB-2 up to greater than 2,500 mg/kg in SB-4.

On September 11, 2012, final excavation field screening results for VOCs via OVM showed concentrations ranging from 1.9 ppm in SC-3 to 38.0 ppm in SC-6. Field TPH concentrations ranged from 65.5 mg/kg in SC-3 up to 618 mg/kg in SC-5. Results are included below in Table 1 and on Figures 3 and 4. The AES field screening reports are attached.

Ashley Maxwell Chacon Hill #2 Initial Release Assessment and Final Excavation Report December 28, 2012 Page 4 of 7

Sample ID S	Date ampled NMOCD Ad 8/7/12	Sample Depth (ft bgs) ction Level* 7 10 11	VOCs via OVM (ppm) 100 4,110	Field TPH (mg/kg) 100 N∆
Sample ID S	ampled NMOCD Ac 8/7/12	(ft bgs) ction Level* 7 10 11	(ppm) 100 4,110	(mg/kg) 100
SB-1	NMOCD A0	2007 <i>tevel*</i> 7 10	100 4,110	100 NA
SB-1	- 8/7/12	7 10 11	4,110	NΔ
SB-1	- - 8/7/12 -	10	1 /11	NA
SB-1	8/7/12 -	11	1,411	NA
	-	11	113	1,030
		14	136	266
		16	44.1	117
		6	24.5	NA
CD 0	0/7/10	8	349	NA
SB-2	8///12	11	20.2	1,230
	5- 2-	14	13.6	94.6
		6	1.5	NA
SB-3	8/7/12	10	3.9	NA
		12	4.1	108
		6	3.5	NA
6D 4	0/7/10	8	3.2	NA
SB-4	8///12	10	18.1	>2,500
		12	6.0	118
		6	6.0	NA
SB-5	8/7/12	8	13.3	NA
		12	11.5	127
		4	747	NA
		6	3,859	NA
SB-6	8/7/12	8	556	NA
		10	247	NA
		12	564	1,220
		2	7.9	NA
SB-7	8/7/12	4	10.8	NA
		7	10.0	NA

Table 1. Soil Field Screening VOCs and TPH Results Chacon Hill #2 Initial Release Assessment and Final Excavation Ashley Maxwell Chacon Hill #2 Initial Release Assessment and Final Excavation Report December 28, 2012 Page 5 of 7

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	NMOCD AC	tion Level*	100	100
SB-7	8/7/12	10	6.0	98.5
	- 1-11-	3	5.7	NA
SB-8	8/7/12 -	6	6.2	136
	0/7/40	2	7.2	NA
SB-9	8///12 -	4	8.3	NA
		2	7.4	NA
		4	8.9	NA
		6	9.9	NA
SB-10	8/7/12 ·	8	8.2	NA
		10	6.9	117
		12	7.2	NA
		2	2.5	NA
	8	4	3.8	NA
		6	5.3	NA
SB-11	8/7/12	8	3.5	NA
		10	5.2	NA
		12	3.4	135
SC-1	9/11/12	1 to 12	22.4	242
SC-2	9/11/12	12	6.3	85.2
SC-3	9/11/12	1 to 12	1.9	65.5
SC-4	9/11/12	1 to 12	33.9	90.1
SC-5	9/11/12	1 to 12	5.8	618
SC-6	9/11/12	1 to 12	38.0	122
SC-7	9/11/12	1 to 12	30.0	158

NA – Not Analyzed

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

Laboratory analyses for SC-6 and SC-7 were used to confirm field screening results during excavation activities. TPH concentrations as GRO/DRO were reported at 25

mg/kg in SC-6 and less than 14.9 mg/kg in SC-7. Results are presented in Table 2 and on Figure 4. The laboratory analytical report is attached.

Chacon	Hill #2 Final	Excavatio	n, Septemb	per 2012
Sample ID	Date Sampled	Sample Depth (ft bgs)	GRO (mg/kg)	DRO (mg/kg)
NMO	CD Action Le	vel*	1	.00
SC-6	9/11/12	1 to 12	<5.0	25
SC-7	9/11/12	1 to 12	<5.0	<9.9

Table 2. Laboratory Analytical Results – TPH

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

Conclusions and Recommendations 3.0

On August 7, 2012, AES conducted an initial assessment of the excavation associated with a historical release at the Chacon Hill #2. Action levels for releases are determined by the NMOCD ranking score per NMOCD Guidelines for Leaks, Spills, and Releases (August 1993), and the site was assigned a ranking of 30. Field screening results above the NMOCD action level of 100 ppm VOCs were reported in SB-1, SB-2, and SB-6. The highest VOC concentration was reported in SB-1 with 4,110 ppm. Field screening results also showed TPH concentrations above the NMOCD action level of 100 mg/kg in SB-1 through SB-6, SB-8, SB-10, and SB-11. The highest TPH concentration was reported in SB-4 with greater than 2,500 mg/kg.

On September 11, 2012, final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations were below the NMOCD action level for all of the final four walls and base of the excavation. Field TPH concentrations above the applicable NMOCD action level of 100 mg/kg were reported in SC-6 (122 mg/kg) and SC-7 (158 mg/kg). However, laboratory analytical results for SC-6 and SC-7 from September 11, 2012, reported TPH concentrations as GRO/DRO below the applicable NMOCD action level of 100 mg/kg.

Based on the final field screening results of the excavation of petroleum contaminated soils at the Chacon Hill #2, VOC and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and the base of the excavation. No further work is recommended.

Ashley Maxwell Chacon Hill #2 Initial Release Assessment and Final Excavation Report December 28, 2012 Page 7 of 7

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

Sincerely,

Heather M. Woods

Heather M. Woods Staff Geologist

Elizabeth V Mindly

Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, August 2012
- Figure 3. Initial Assessment Soil Sample Locations and Results, August 2012
- Figure 4. Final Excavation Soil Sample Locations and Results, September 2012 AES Field Screening Report 080712
- AES Field Screening Report 091112
- Hall Laboratory Analytical Report 1209445

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AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

Client: ConocoPhillips

Project Location: Chacon Hill #2

Date: 8/7/2012

Matrix: Soil

Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials	
8/7/2012	10:20	4,110		Not A	nalyzed for T	РН		
8/7/2012	10:34	1.411		Not A	nalyzed for T	ЪΗ		
8/7/2012	10:40	113	11:16	1,030	20.0	1	HMW	
8/7/2012	11:25	136	12:03	266	20.0	1	HMW	
8/7/2012	11:54	44.1	12:19	117	20.0	1	HMW	
8/7/2012	10:52	24.5		Not A	nalyzed for T	ГРН		
8/7/2012	11:04	349		Not A	nalyzed for T	ГРН		
8/7/2012	11:19	20.2	11:52	1,230	20.0	1	HMW	
8/7/2012	12:11	13.6	12:28	94.6	20.0	1	HMW	
8/7/2012	12:20	1.5	Not Analyzed for TPH					
8/7/2012	12:33	3.9	Not Analyzed for TPH					
8/7/2012	12:40	4.1	13:01 108 20.0 1 HM					
8/7/2012	12:56	3.5	Not Analyzed for TPH					
8/7/2012	13:08	3.2		Not A	nalyzed for	ТРН		
8/7/2012	13:17	18.1	14:14	>2,500	20.0	1	HMW	
8/7/2012	13:24	6.0	13:46	118	20.0	1	HMW	
8/7/2012	13:35	6.0		Not A	Analyzed for	ТРН		
8/7/2012	13:40	13.3		Not A	Analyzed for	ТРН		
8/7/2012	13:51	11.5	14:31	127	20.0	1	HMW	
8/7/2012	14:27	747		Not A	Analyzed for	ТРН		
8/7/2012	14:34	3,859		Not A	Analyzed for	ТРН		
8/7/2012	14:47	556		Not	Analyzed for	ТРН		
	Collection Date 8/7/2012	Collection DateCollection Time8/7/201210:208/7/201210:348/7/201210:348/7/201210:408/7/201211:258/7/201211:548/7/201210:528/7/201210:528/7/201211:048/7/201211:198/7/201212:118/7/201212:208/7/201212:208/7/201212:338/7/201212:348/7/201212:568/7/201213:088/7/201213:178/7/201213:248/7/201213:248/7/201213:358/7/201213:408/7/201213:518/7/201214:278/7/201214:348/7/201214:34	Collection DateCollection TimeOVM (ppm)8/7/201210:204,1108/7/201210:341,4118/7/201210:401138/7/201211:251368/7/201211:5444.18/7/201210:5224.58/7/201211:043498/7/201211:1920.28/7/201211:1920.28/7/201212:1113.68/7/201212:201.58/7/201212:333.98/7/201212:404.18/7/201212:404.18/7/201212:563.58/7/201213:083.28/7/201213:1718.18/7/201213:246.08/7/201213:356.08/7/201213:4013.38/7/201213:5111.58/7/201213:5111.58/7/201214:343,8598/7/201214:47556	Collection DateCollection TimeOV/M (ppm)Time of Sample Analysis8/7/201210:204,1108/7/201210:341,4118/7/201210:4011311:168/7/201211:2513612:038/7/201211:5444.112:198/7/201210:5224.58/7/201211:043498/7/201211:1920.211:528/7/201211:1920.211:528/7/201212:201.58/7/201212:201.58/7/201212:333.98/7/201212:404.113:018/7/201212:404.113:018/7/201212:404.113:018/7/201213:083.28/7/201213:1718.114:148/7/201213:356.08/7/201213:4013.38/7/201213:5111.514:318/7/201214:343,8598/7/201214:47556	Collection Date Collection Time OVM (ppm) Time of Sample Analysis Field TPH* (mg/kg) $8/7/2012$ 10:20 4,110 \cdots Not A $8/7/2012$ 10:34 1,411 \cdots Not A $8/7/2012$ 10:34 1,411 \cdots Not A $8/7/2012$ 10:40 113 11:16 1,030 $8/7/2012$ 11:25 136 12:03 266 $8/7/2012$ 11:54 44.1 12:19 117 $8/7/2012$ 11:52 24.5 Not A $8/7/2012$ 11:19 20.2 11:52 1,230 $8/7/2012$ 11:19 20.2 11:52 1,230 $8/7/2012$ 12:20 1.5 1,230 $8/7/2012$ 12:33 3.9 \cdots Not A $8/7/2012$ 12:40 4.1 13:01 108 $8/7/2012$ 13:08 3.2 Not A $8/7/2012$ 13:08 3.2 Not A $8/7/2012$ 13:17 18.1 14:14<	Collection Date Collection Time OVM (ppm) Time of Sample Analysis Field TPH* (mg/kg) TPH PQL (mg/kg) 8/7/2012 10:20 4,110	Collection Date Collection Time OVM (ppm) Time of Sample Analysis Field TPH* (mg/kg) TPH PQL (mg/kg) DF 8/7/2012 10:20 4,110 .Not	

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials	
SB-6 @ 10'	8/7/2012	14:55	247		Not A	nalyzed for T	РН		
SB-6 @ 12'	8/7/2012	15:02	564	15:36	1,220	20.0	1	HMW	
SB-7 @ 2'	8/7/2012	15:14	7.9		Not A	nalyzed for T	ЪΗ		
SB-7@4'	8/7/2012	15:19	10.8		Not A	nalyzed for T	ЪΗ		
SB-7 @ 7'	8/7/2012	15:27	10.0		Not A	nalyzed for 1	ГРН		
SB-7 @ 10'	8/7/2012	15:38	6.0	15:53	98.5	20.0	1	HMW	
SB-8@3'	8/7/2012	15:36	5.7		Not A	nalyzed for 1	ГРН		
SB-8@6'	8/7/2012	15:56	6.2	16:28	136	20.0	1	HMW	
SB-9 @ 2'	8/7/2012	16:01	7.2		Not A	nalyzed for T	ГРН		
SB-9@4'	8/7/2012	16:06	8.3	Not Analyzed for TPH					
SB-10 @ 2'	8/7/2012	16:18	7.4	Not Analyzed for TPH					
SB-10 @ 4'	8/7/2012	16:23	8.9	Not Analyzed for TPH					
SB-10 @ 6'	8/7/2012	16:32	9.9	Not Analyzed for TPH					
SB-10 @ 8'	8/7/2012	16:37	8.2	Not Analyzed for TPH					
SB-10 @ 10'	8/7/2012	16:45	6.9	17:03	117	20.0	1	HMW	
SB-10 @ 12'	8/7/2012	16:54	7.2		Not A	nalyzed for	ТРН		
SB-11 @ 2'	8/7/2012	17:00	2.5		Not A	nalyzed for	ТРН		
SB-11 @ 4'	8/7/2012	17:04	3.8		Not A	nalyzed for	ТРН		
SB-11 @ 6'	8/7/2012	17:10	5.3		Not A	alyzed for	ТРН		
SB-11 @ 8'	8/7/2012	17:15	3.5		Not A	Analyzed for	ТРН		
SB-11 @ 10'	8/7/2012	17:21	5.2		Not A	Analyzed for	ТРН		
SB-11 @ 12'	8/7/2012	17:27	3.4	17:43	135	20.0	1	HMW	

Total Petroleum Hydrocarbons - USEPA 418.1

- PQL Practical Quantitation Limit
- ND Not Detected at the Reporting Limit
- DF Dilution Factor
- NA Not Analyzed

Analyst:

Aleather M. Woods

AES Field Screening Report

Animas Environmental Services. LLC

www.animasenvironmental.com

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

Durango, Colorado 970-403-3274

Matrix: Soil

Date: 9/11/2012

Client: ConocoPhillips

Project Location: Chacon Hill #2

					Time of				
	Collection	Collection	Sample	MVO	Sample	Field TPH*	TPH PQL		TPH Analysts
Sample ID	Date	Time	Location	(mdd)	Analysis	(mg/kg)	(mg/kg)	DF	Initials
SC-1	9/11/2012	12:10	North Wall	22.4	13:03	242	20.0	Ч	MMH
SC-2	9/11/2012	12:13	Base	6.3	13:07	85.2	20.0	Н	MMH
SC-3	9/11/2012	12:14	East Wall	1.9	13:10	65.5	20.0	1	MMH
SC-4	9/11/2012	12:16	West Wall	33.9	13:14	90.1	20.0	Ч	MMH
SC-5	9/11/2012	12:20	South Wall	5.8	13:18	618	20.0	н	MMH
SC-6	9/11/2012	13:30	North Wall	38.0	13:47	122	20.0	Ч	MMH
SC-7	9/11/2012	13:33	South Wall	30.0	13:43	158	20.0	Ч	MMH

Total Petroleum Hydrocarbons - USEPA 418.1

Not Detected at the Reporting Limit Practical Quantitation Limit PQL ND NA NA

Dilution Factor

Not Analyzed

Analyst: Aleather M. Word

Page 1 Report Finalized: 09/11/12



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

September 17, 2012

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

OrderNo.: 1209445

RE: COP Chacon Hill #2

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/12/2012 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1209445
Date Reported: 9/17/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Project: Lab ID:	CLIENT: Animas Environmental ServicesProject: COP Chacon Hill #2Lab ID: 1209445-001		Client Sample ID: SC-7 Collection Date: 9/11/2012 1:33:00 PM Matrix: MEOH (SOIL) Received Date: 9/12/2012 10:05:00 AM						
Analyses		Result	RL	Qual Unit	s DF	Date Analyzed			
EPA MET	THOD 8015B: DIESEL RANGE O	RGANICS				Analyst: JMP			
Diesel R	ange Organics (DRO)	ND 116	9.9 77.6-140	mg/ %RI	Kg 1 EC 1	9/12/2012 12:16:37 PM 9/12/2012 12:16:37 PM			
FPA MET	THOD 8015B: GASOLINE RANG	E				Analyst: NSB			
Gasoline Surr:	e Range Organics (GRO) BFB	ND 109	5.0 84-116	mg/ %Rl	Kg 1 EC 1	9/12/2012 2:29:38 PM 9/12/2012 2:29:38 PM			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

Hall En	vironmental Analysis	Labora	tory, Inc	•		Lab Date	Order 1209445 Reported: 9/17/2012
CLIENT: Project: Lab ID:	Animas Environmental Services COP Chacon Hill #2 1209445-002	Matrix:	MEOH (SOI	C L)	lient Sample Collection I Received I	e ID: SC-6 Date: 9/11/20 Date: 9/12/20	12 1:30:00 PM 12 10:05:00 AM
Analyses		Result	RL Q	ual	Units	DF	Date Analyzed
EPA MET Diesel Ra	HOD 8015B: DIESEL RANGE O ange Organics (DRO)	RGANICS 25 120	9.8 77.6-140		mg/Kg %REC	1	Analyst: JMP 9/12/2012 12:38:26 PM 9/12/2012 12:38:26 PM
Surr: L EPA MET Gasoline Surr: I	THOD 8015B: GASOLINE RANG Range Organics (GRO) BFB	E ND 119	5.0 84-116	S	mg/Kg %REC	1 1	Analyst: NSB 9/12/2012 2:00:45 PM 9/12/2012 2:00:45 PM

Qualifiers:

Value exceeds Maximum Contaminant Level. *

Value above quantitation range Е

Analyte detected below quantitation limits J

RPD outside accepted recovery limits R

Spike Recovery outside accepted recovery limits S

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit ND

Reporting Detection Limit RL

Analytical Report

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Animas Ei COP Chao	ovironment con Hill #2	al Serv	vices					1		
Sample ID	MB-3724	SampTy	pe: MB	LK	Test	Code: EF	A Method	8015B: Diese	I Range O	rganics	
Client ID:	PBS	Batch	ID: 372	24	R	unNo: 5 4	50				
Prep Date:	9/12/2012	Analysis Da	te: 9/′	12/2012	S	eqNo: 18	6055	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10								
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		11		10.00		113	77.6	140			
Sample ID	LCS-3724	SampTy	pe: LC	S	Test	Code: EF	PA Method	8015B: Diese	el Range C	Organics	
Client ID:	LCSS	Batch	ID: 37	24	R	unNo: 54	450				
Prep Date:	9/12/2012	Analysis Da	ite: 9/	12/2012	S	SeqNo: 1	56114	Units: mg/K	g		
Analvte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	38	10	50.00	0	75.9	52.6	130			
Surr: DNOP		4.3		5.000		86.4	77.6	140			
Sample ID	1209366-002AMS	SampTy	/pe: MS	6	Tes	tCode: El	PA Method	8015B: Diese	el Range C	Organics	
Client ID:	BatchQC	Batch	ID: 37	24	F	RunNo: 5	485				
Prep Date:	9/12/2012	Analysis Da	ate: 9/	13/2012	5	SeqNo: 1	56858	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	37	9.8	48.97	0	75.0	57.2	146			
Surr: DNOF		4.7		4.897		95.9	77.6	140			
Sample ID	1209366-002AMSI	SampT	pe: M	SD	Tes	tCode: E	PA Method	8015B: Dies	el Range (Organics	
Client ID:	BatchQC	Batch	ID: 37	24	F	RunNo: 5	485				
Prep Date:	9/12/2012	Analysis D	ate: 9	/13/2012	5	SeqNo: 1	56967	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	36	10	50.51	0	71.3	57.2	146	1.98	24.5	
Surr: DNOF	2	4.6		5.051		90.8	77.6	140	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level. *

- Value above quantitation range Е
- Analyte detected below quantitation limits J
- RPD outside accepted recovery limits R

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- RL Reporting Detection Limit

1209445 WO#: 17-Sep-12

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Animas Er COP Chac	vironmen on Hill #2	tal Serv	vices							
Sample ID	MB-3710	SampTy	pe: MB	LK	Test	Code: EF	A Method	8015B: Gaso	line Range)	
Client ID:	PBS	Batch	ID: 371	10	R	unNo: 54	169				
Pren Date	9/11/2012	Analysis Da	ate: 9/	12/2012	S	eqNo: 1	56930	Units: mg/K	g		
Analyte	01112012	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	ge Organics (GRO)	ND 980	5.0	1000		98.1	84	116			
Sample ID	LCS-3710	SampTy	/pe: LC	S	Tes	Code: E	PA Method	8015B: Gaso	line Rang	e	
Client ID:	LCSS	Batch	ID: 37	10	R	anNo: 5	469				
Prep Date:	9/11/2012	Analysis Da	ate: 9/	12/2012	S	SeqNo: 1	56932	Units: mg/K	g		
		Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carolino Ran	ne Organics (GRO)	25	5.0	25.00	0	101	74	117			
Surr: BFB	ge organios (er te)	1000		1000		102	84	116			
	4000244 001AMS	SamnT	vne: MS	3	Tes	tCode: E	PA Method	8015B: Gaso	line Rang	e	
Sample ID	1209344-00 TAMIS	Datab	1D: 27	10	F	RunNo: 5	469				
Client ID:	BatchQC	Dalun	-lu: 0	10		SeaNo: 1	56934	Units: ma/k	(a		
Prep Date:	9/11/2012	Analysis D	ate: 9	12/2012		Jeqive. 1			0 000		Qual
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLIIIII	S
Gasoline Ran	ge Organics (GRO)	33	5.0	24.80	U	134	84	116			
Surr: BFB		1100		992.1		101					
Sample ID	1209344-001AMSI	o SampT	ype: M	SD	Tes	tCode: E	PA Method	8015B: Gaso	oline Rang	le	
Client ID:	BatchQC	Batch	n ID: 37	'10	I	RunNo: 5	5469				
Prep Date	: 9/11/2012	Analysis D	ate: 9	/12/2012	4	SeqNo: 1	56935	Units: mg/ł	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rar	nge Organics (GRO)	33	5.0	24.80	0	132	70	130	1.29	22.1	3
		1100		002 1		108	84	10	U	0	

992.1

1100

Client:

Qualifiers:

Surr: BFB

- Value exceeds Maximum Contaminant Level. *
- Value above quantitation range Е
- Analyte detected below quantitation limits J
- RPD outside accepted recovery limits R

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Η

116

Not Detected at the Reporting Limit ND

108

84

Reporting Detection Limit RL

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WO#: 1209445

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Animas E COP Cha	nvironmen con Hill #2	tal Ser	vices							
Sample ID	MB-3710	SampTy	pe: MI	BLK	Test	Code: El	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	ID: 37	10	R	unNo: 5	469				
Pren Date:	9/11/2012	Analysis Da	ate: 9/	/12/2012	S	eqNo: 1	56943	Units: %RE	С		
A sub-		Dogult		SPK value	SPK Ref Val	%REC	Lowl imit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.0	T QL	1.000	Of It iter var	100	80	120			
					Tool	Codo: El	PA Mothod	8021B: Volat	tilos		
Sample ID	LCS-3710	Samply	/pe: LC	:5	Test	Coue. E	PAMethou	0021D. VOId	lies		
Client ID:	LCSS	Batch	ID: 37	'10	R	unNo: 5	469		_		
Prep Date:	9/11/2012	Analysis Da	ate: 9	/12/2012	S	eqNo: 1	56944	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bror	nofluorobenzene	1.1		1.000		106	80	120			
Sample ID	1209366-002AMS	SampT	vpe: M	s	Tes	Code: E	PA Method	8021B: Vola	tiles		
Client ID:	RatchOC	Batch	ID: 37	/10	R	unNo: 5	469				
	Batchigo	Apolygia D	nto: 0	10 10 10	S	eaNo: 1	56948	Units: %RE	C		
Prep Date:	9/11/2012	Analysis D	ale. 9	112/2012		icqiito. I	00010			DDDI Iwik	Qual
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLIMIT	Qual
Surr: 4-Bror	mofluorobenzene	1.0		0.9766		105	80	120			
Sample ID	1209366-002AMS	D SampT	ype: M	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	BatchQC	Batch	ID: 37	710	F	RunNo: 5	5469				
Prep Date:	9/11/2012	Analysis D	ate: 9	/12/2012	S	SeqNo: 1	56949	Units: %RE	C		
Analyte		Result	POI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bro	mofluorobenzene	1.0		0.9737		105	80	120	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Value above quantitation range Е
- Analyte detected below quantitation limits J
- RPD outside accepted recovery limits R

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL

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17-Sep-12

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Wo	ork Order Number: 1209445
Received by/date	
Logged By: Ashley Gallegos 9/12/2012 10:05:00 AM	A
Completed By: Ashley Gallegos 9/12/2012 10:25:24 AM	F.F.
Reviewed By: MA 09/12/12	<u>d</u>
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?	Client
Log In	
4 Coolers are present? (see 19. for cooler specific information)	Yes ✔i No ⁱ NA i
 A second second for the first of first second s second second sec	
5. Was an attempt made to cool the samples?	Yes 🖌 No 👘 NA
2 When all second as a consistent of a temperature of $>0^\circ$ C to 6 0°C	Ves W No NA
6, were all samples received at a temperature of 20 0 to 0.0 0	
7. Sample(s) in proper container(s)?	Yes 🖌 No . i
8. Sufficient sample volume for indicated test(s)?	Yes 🗸 No
9. Are samples (except VOA and ONG) properly preserved?	Yes 🗸 No
10. Was preservative added to bottles?	Yes! No 🔽 NA
11 VOA vials have zero headsnace?	Yes No No VOA Vials 🗸
12 Were any sample containers received broken?	Yes I No V
13 Does paperwork match bottle labels?	Yes V No # of preserved
(Note discrepancies on chain of custody)	for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes V No (<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes V No i Adjusted?
16. Were all holding times able to be met?	Yes ✔i No I
(If no, notify customer for authorization.)	Checked by:
Special Handling (if applicable)	
17. Was client notified of all discrepancies with this order?	Yes I No I NA V
Person Notified: Date:	STATEONAVISANIAU (S) (PERMISSIONI SUITEONA)
By Whom: Via:	eMail Phone Fax In Person
Regarding:	
Client Instructions:	LE CIER MANNER (LE RAILE EN RECECTE EN MANHEUR, ARAURA CAMPACTURI, MUNICIPALITA
18 Additional remarks:	•
10,	

19. Cooler Information

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

CHACON HILL 2

