District I	
1625 N. French Dr., Hobbs, NM 88240	
<u>District II</u> 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 8750	05

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.

1220 S. St. Flatels DL, Sand PC, the store						
Pit, Below-Grade Tank, or						
Proposed Alternative Method Permit or Closure Plan Application						
14296       Type of action:       Below grade tank registration       RECEIVED         By kcollins at 8:05 am, Mar 09, 2016         Modification to an existing permit/or registration       By kcollins at 8:05 am, Mar 09, 2016         Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank,						
in die (Erwer C 144) par individual pit, below-grade tank or alternative request						
Instructions: Please submit one application (Form C-144) per internation processing 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: <u>Burlington Resources Oil &amp; Gas Company, LP</u> OGRID #: <u>14538</u>						
Address: <u>PO BOX 4289, Farmington, NM 87499</u> Facility or well name: San Juan 29-7 Unit 157 NOTAPPROVED						
Facility or well name:       San Juan 29-7 Unit 157         API Number:						
API Number: _30-039-25709						
U/L or Qtr/Qtr Section rounding NAD: $\Box$ 1927 $\boxtimes$ 1983 Center of Proposed Design: Latitude36.74966 <u>N</u> Longitude107.57269 <u>W</u> NAD: $\Box$ 1927 $\boxtimes$ 1983						
Center of Proposed Design. Eatitudeor results         Surface Owner: Design. Eatitudeor results						
<ul> <li>2.</li> <li>Pit: Subsection F, G or J of 19.15.17.11 NMAC</li> <li>Temporary: Drilling Workover</li> <li>Dermanent Emergency Cavitation P&amp;A Multi-Well Fluid Management</li> <li>Low Chloride Drilling Fluid yes no</li> </ul>						
Permanent Emergency Cavitation P&A Multi-Work And Multi-Work						
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L_x W_x D						
3. ⊠ Below-grade tank: Subsection I of 19.15.17.11 NMAC						
Volume: 120 bbl Type of fluid: Produced Water						
Metal						
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-on						
Contraction of the second						
□ Visible sidewalls and liner       □ Visible sidewalls only □ Outer         Liner type: Thickness       45         mil       □ HDPE         PVC       ⊠ Other         LLDPE						
4.						
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approva						
Submittal of an exception request is required. Exceptions must be submitted to the balance a submitted						
5. Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)						
<b>Fencing:</b> Subsection D of 19.15.17.11 NMAC ( <i>Applies to permanent pils, temporary pressure of a permanent residence, school, hospital,</i> Chain link, six feet in height, two strands of barbed wire at top ( <i>Required if located within 1000 feet of a permanent residence, school, hospital,</i>						
<i>institution or church)</i> Four foot height, four strands of barbed wire evenly spaced between one and four feet						
Alternate. Please specify						

0.	a state to the second pair and pair and pair and the second se
Netting:	Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other

7

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

#### 8. Variances and Exceptions:

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

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

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

## 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
NM Office of the State Engineer - IWATERS database search, OBOC, which is the state of the State Engineer - IWATERS database search, OBOC, which is the state of	🗌 Yes 🗌 No
- Written confirmation or verification from the municipanty, written approval	□ Yes □ No
<ul> <li>Within the area overlying a subsurface mine. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	
<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</li> </ul>	Yes 🗌 No
Society; Topographic map	□ Yes □ No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	
Below Grade Tanks	
<ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes 🛛 No
the set for sublic or livestock consumption:	Yes 🛛 N
- NM Office of the State Engineer - TwATERS database search, The state of the state Engineer - TwATERS database search, The state of th	
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
<ul> <li>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.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes N
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes 🗌 N
application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes 🗋 Y

<ul> <li>Within 100 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No		
The area was a standard of the			
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any factore, sinkness, or playa lake (measured from the ordinary high-water mark).	🗋 Yes 🗌 No		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	🗋 Yes 🗌 No		
<ul> <li>Visual inspection (certification) of the perf</li> <li>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;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	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		
Barmanant Pit or Multi-Well Fluid Management Pit			
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or takebed, sinkinote, of playa lake (measured from the ordinary high-water mark).	Yes No		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes 🗌 No		
<ul> <li>Visual inspection (certification) of a print of the spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No		
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes No		
10.       Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.1         Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application. Please indicate, by a check mark in the box, that the Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached.         Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMA         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 19.15.17.12 NMAC         Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of and 19.15.17.13 NMAC         Previously Approved Design (attach copy of design)       API Number: or Permit Number:			
III.       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 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			

Ē	A List of wells with approved application for permit to drift associated with the properties of Subsection C of 19.15.17.9 NWAY Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NWAY
	Closule Film (Fields compared

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

Siting Criteria Compliance Demonstration		or Permit Number:
Previously Approved Design (attach copy of design)	API Number:	

<sup>12.</sup> <u>Permanent Pits Permit Application Checklist</u> : Subsection B of 19.15.17.9 NMAC <u>Instructions</u> : Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc	cuments 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	
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC	
Ouglity Control/Quality Assurance Construction and Instruction	
□ Freeboard and Overtopping Prevention Fian Subset of Prevention Plan	
Emergency Response Plan Oil Field Waste Stream Characterization	
<ul> <li>Monitoring and Inspection Plan</li> <li>Erosion Control Plan</li> <li>Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>	
<sup>13.</sup> <u>Proposed Closure</u> : 19.15.17.13 NMAC <u>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</u> <u>Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.</u>	ud Management Pi
Type: Drilling Workover Emergency Cavitation P&A Tremanent a 2	
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) Waste Removal (Closed-loop systems only)	
On-site Closure Method (Only for temporary pits and closed to p -)	
Alternative Closure Method 14. Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a state of	attached to the
Soil Backfill and Cover Design Specifications - States appendix of the section H of 19 15 17.13 NMAC	
<ul> <li>Soft Didentified and the appropriate requirements of Subsection II of 19.15.17.13 NMAC</li> <li>Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable som Instructions: Each siting criteria requires to certain siting criteria require justifications and/or demonstrations of equivalency.	rce material are Please refer to
Siting Criteria (regarding on-site closure methods on provided for the closure plan. Recommendations of acceptable source instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of equivalency provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. 19.15.17.10 NMAC for guidance.	
	☐ Yes ☐ No ☐ NA
- NM Office of the State Engineer - TWAT Did database	Yes No
- NM Office of the State Engliced - WATER of and	Yes No
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	$\square NA$ $\square Yes \square Nc$
- NM Office of the State Engineer - IWATERS utabase search, as each watercourse, lakebed, sinkhole, or playa 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) or church in existence at the time of initial application.	Yes No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or statistic image</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence</li> </ul>	e 🛛 Yes 🗆 N
at the time of initial application.	
- NM Office of the State Englished First Particular approval obtained from the municipality Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes N
Within 300 feet of a wetland.	Yes 🗌 N
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal oranization	of 6
Form C-144 Oil Conservation Division Tage 4	

		the second s
adopted p	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
	ne area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗋 Yes 🗌 No
Within a	n unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	🗋 Yes 🗌 No
Within a	a 100-year floodplain. FEMA map	Yes No
16.       On-Site       by a che       □ </td <td colspan="2">If IO NURST 1714, coefficients from the municipality; Written approval obtained from the municipality;       Yritten approval obtained from the municipality; Written approval obtained from the municipality;         Loverlying a subsurface mine.      </td>	If IO NURST 1714, coefficients from the municipality; Written approval obtained from the municipality;       Yritten approval obtained from the municipality; Written approval obtained from the municipality;         Loverlying a subsurface mine.	
Name Signat	(Print): Date:	
e-mai	address:	
18. OCD	Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (core attachment) Representative Signature: NOT APPROVED Approval Date: PAG	E FRONT GE
X	:	ting the closure repor not complete this
	sure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Clos If different from approved plan, please explain. Sure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please sure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please	

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): Larissa Farrell Title: <u>Regulatory Technician</u> Date: <u>3-8-16</u>	
e-mail address: <u>Larissa.L.Farrell@cop.com</u> Telephone: (505) 326-9504	

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

## Lease Name: San Juan 29-7 Unit 157 API No.: 30-039-25709

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.

 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.

 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.

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

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 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, 7. 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.

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. 9.

# 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)
  - 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 Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

istrict IV	20 South 2							
220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe,	NM 8750	)5					
Release Notif	fication	and Co	rrective Ac	ction				
	(	PERAJ	OR		] Initia	l Report	$\boxtimes$	Final Report
Name of Company Burlington Resources Oil & Gas LP	C	ontact Cr	stal Walker					
Address 3401 East 30 <sup>th</sup> St, Farmington, NM	Т	elephone N	lo.(505) 326-98	37	_			
Facility Name: San Juan 29-7 Unit 157	Fa	acility Typ	e: Gas Well					
				API No	.30-039-25	5709		
Inface Owner Federal Mineral Owner AFT N0.50-059 25109								
		OF REI	Feet from the	East/W	est Line	County		
Unit Letter Section Township Range Feet from the O 4 29N 7W 825		outh Line outh	1560		ast	<b>Rio Arril</b>	Da	
Latitud			e <u>-107.57269</u>					
N	ATURE	OF REL	EASE			-		
		Volume o	f Release		Volume	Recovered Hour of Di	scover	v
Type of Release Source of Release		Date and	Hour of Occurrent	ce	Date and		500101	
		If YES, T	o Whom?					
Was Immediate Notice Given?	ot Required	11 1 20, -						
		Date and	Hour					
By Whom? Was a Watercourse Reached?		If YES, V	olume Impacting	the Wate	ercourse.			
Was a watercourse Reached? Yes No								
If a Watercourse was Impacted, Describe Fully.*								
N/A								
11/14								
Describe Cause of Problem and Remedial Action Taken.*								
No release was encountered during the BGT Closure.								
No release was encounter ou and a								
Describe Area Affected and Cleanup Action Taken.*								
N/A								
				d un dorate	and that n	ursuant to N	IMOC	D rules and
I hereby certify that the information given above is true and regulations all operators are required to report and/or file certifications and the second sec	l complete to	the best of 1	ny knowledge and	rective ac	tions for	releases wh	ich ma	y endanger
should their operations have failed to adequately investigate or the environment. In addition, NMOCD acceptance of a	C-141 report	does not rel	ieve the operator	of respon	sibility 10	r compliant	c with	Taily other
federal, state, or local laws and/or regulations.			OIL CO	NSER	VATIO	N DIVIS	SION	[
Todoran, binny			<u>OIL CO</u>	MOLIC	11110	1, 2		-
Signature:								
		Approved	by Environmenta	al Special	ist:			
Printed Name: Larissa Farrell								
		Approval	Date:		Expirat	on Date:		
Title: Regulatory Technician							1. p. 1	-
E-mail Address: Larissa.L.Farrell@cop.com		Condition	ns of Approval:			Attao	ched	
Date: 2-22-2016 Phone: (505) 326-9504								
Date. 2-22-2010								

\* Attach Additional Sheets If Necessary



August 13, 2012

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

Ashley Maxwell ConocoPhillips San Juan Business Unit Office 216-2 5525 Hwy 64

Farmington, New Mexico 87401

## RE: Below Grade Tank Closure Report San Juan 29-7 #157 Rio Arriba County, New Mexico

Dear Ms. Maxwell:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 29-7 #157, located in Rio Arriba County, New Mexico. The San Juan 29-7 #157 is located adjacent to the San Juan 29-7 #82A. Tank removal had been completed prior to AES' arrival at the location.

## 1.0 Site Information

## 1.1 Location

Site Name – San Juan 29-7 #157 Legal Description - SW¼ SE¼, Section 4, T29N, R7W, Rio Arriba County, New Mexico Well P&A Monument Latitude/Longitude - N36.74976 and W107.57260, respectively BGT Latitude/Longitude - N36.74966 and W107.57269, respectively Land Jurisdiction - Bureau of Land Management (BLM) Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, June 2012

## 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Report dated May 13, 1991, for the San Juan 29-7 #157 reported groundwater at a depth 190 feet below ground surface (bgs). No additional NMOCD records were located. Additionally, the New Mexico Office of the State Engineer (NMOSE) database was reviewed, and no registered water wells are located within 1,000 feet of the location. Once on site, AES personnel assessed the ranking

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using known information of the area, topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs, and the location is not within a wellhead protection area. Distance to the nearest surface water, a small pond, is located approximately 1,200 feet to the west. The wash in Gobernador Canyon is located about 2,100 feet to the southwest. The site location has been assigned a ranking score of 0 per the NMOCD Guidelines for Leaks, Spills, and Releases (1993).

#### BGT Closure Assessment 1.3

AES was initially contacted by Spur Mackey, CoP representative, on June 5, 2012, and on June 7, 2012, Deborah Watson and Heather Woods of AES mobilized to the location.

AES personnel collected six soil samples from below the BGT footprint. 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.

#### Soil Sampling 2.0

On June 7, 2012, AES personnel conducted field screening and collected five soil samples (S-6 through S-10) and one 5-point composite (SC-2) from below the BGT. Soil samples S-6 through S-10 were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs), total petroleum hydrocarbon (TPH), and chlorides. Soil sample SC-2 was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

#### Field Screening 2.1

## 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors with a photoionization 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 the AES Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1.

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#### 2.1.3 Chlorides

Soil samples were field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

#### Laboratory Analyses 2.2

The composite soil sample SC-2 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-2 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental 1 Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- Chloride per USEPA Method 300.0. ١.

#### Field and Laboratory Analytical Results 2.3

Field screening for VOCs via OVM showed readings ranging from 5.6 ppm in S-7 up to 26.8 ppm in S-9. Field TPH concentrations ranged from 55.3 mg/kg in S-7 up to 106 mg/kg in S-6. Field chloride concentrations were 60 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)	
NMOCD Action L		15.17.13E)		100	250	
S-6	06/07/12	0.5	6.7	106	60	
	06/07/12	0.5	5.6	55.3	60	
S-7			6.8	72.7	60	
S-8	06/07/12	0.5	0.8			
S-9	06/07/12	0.5	26.8	74.1	60	
	06/07/12	0.5	14.5	99.7	60	

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results 29-7 #157 BGT Closure. June 2012

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Laboratory analytical results showed that the benzene and total BTEX concentrations in SC-2 were less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations were reported at less than 5.0 mg/kg GRO and less than 9.8 mg/kg DRO. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached; note that sample SC-2 from the San Juan 29-7 #157 was submitted with sample SC-1 from the San Juan 29-7 #82A BGT closure.

Table 2. Sample ID	Soil Laboratory An Date Sampled	Denth	esults, San J Benzene (mg/kg)	BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
		17 13F)	0.2	50	1	250	
NMOCD Action	Level (NMAC 19.15	.17.152)		0.25	<5.0 <9.8		<30
SC-2	06/07/12	0.5	<0.050	<0.25	<5.0	49.0	

20 7 #157 BGT Closure June 2012

#### Conclusions and Recommendations 3.0

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene concentrations in SC-2 were below the laboratory detection limit of of 0.050 mg/kg, and total BTEX concentrations were below the NMOCD action level of 50 mg/kg. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in S-6 with 106.4 mg/kg; however laboratory analytical results for TPH as GRO/DRO were reported below the NMOCD threshold of 100 mg/kg. Chloride concentrations for all samples were below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, BTEX, TPH, and chlorides, no further work is recommended.

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

Sincerely,

Aleather M. Woods

Heather Woods Staff Geologist

Ashley Maxwell SJ 29-7 #157 BGT Closure Report August 13, 2012 Page 5 of 5

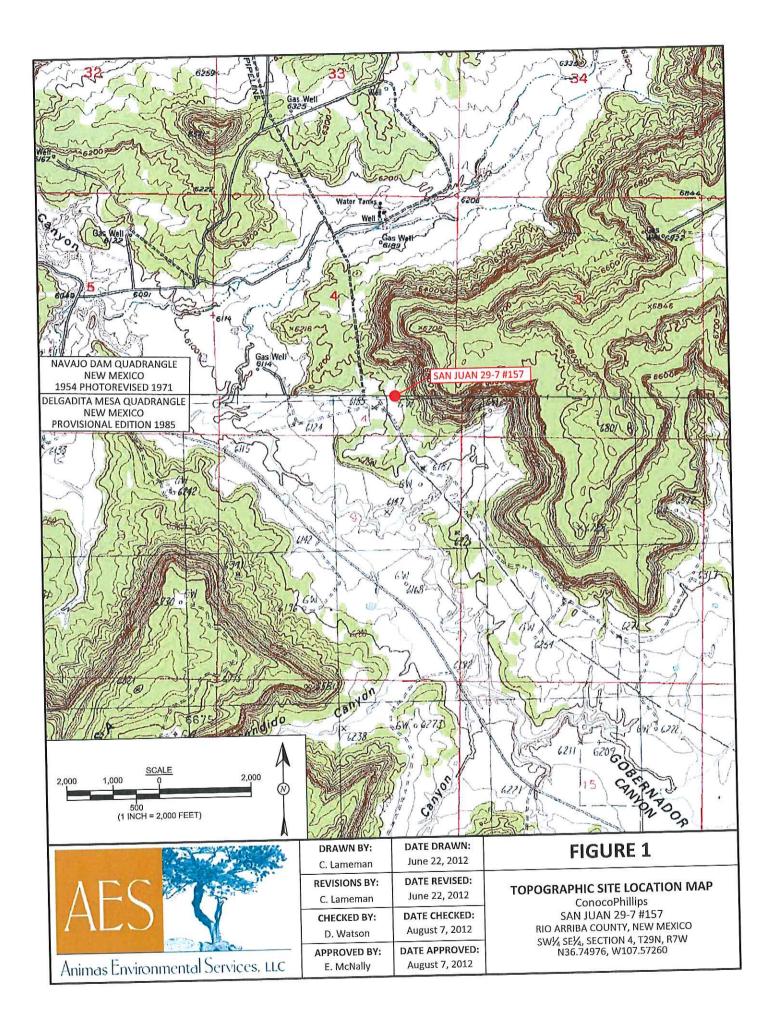
Elizabeth & McNelly

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, June 2012 AES Field Screening Report 060712 Hall Analytical Report 1206333

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	4	2			(tel	225	VA TH		12		n		LEGEND SAMPLE LOCA	ATIONS
Simple         Date         WW         TPH (mg/kg)         Chlorides (mg/kg)           NMOCD ACTION         -         100         250           5-6         6/7/12         5.6         55.3         600           5-8         6/7/12         5.6         55.3         600           5-9         6/7/12         26.8         74.1         60           5-10         6/7/12         14.5         99.7         600	1	170				1910	Teres.	14.50	-			1110	10 S. P.	11
Sample       Date       PID       (mg/kg)       (mg/kg)         NMOCD ACTION       -       100       250         5-6       6/7/12       6.7       106       60         5-8       6/7/12       2.6       87.2.7       60         5-9       6/7/12       2.6.8       74.1       60         5-10       6/7/12       14.5       99.7       60         NOTE: ALL SAMPLES WERE ANALYZED PRE PA METHOD 8021B, 8015B AND 300.0         5-2       6/7/12       14.5       99.7       60			Field S	creenin	ng Results		1 Nor	- All		0	1111			
ID         Diff.         (mg/kg)         (mg/k		Sample	Data		Inn			distant in the state	Laborator	y Analytica				-
NMOCD ACTION       -       100       250         S-6       6/7/12       5.7       106       60         S-7       6/7/12       5.6       55.3       60         S-8       6/7/12       26.8       74.1       60         S-10       6/7/12       14.5       99.7       60	4 I	ID	500000000	(ppm)	(mg/kg)	(mg/kg)	-		Benzene					A STATE
S-6       67/12       6.7       106       60         S-7       6/7/12       5.6       55.3       60         S-8       6/7/12       6.8       72.7       60         S-9       6/7/12       26.8       74.1       60         S-10       6/7/12       14.5       99.7       60         NDTE: ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0.       SC-2 IS A 5-POINT COMPOSITE SAMPLE OF S-6 THROUGH S-10.         S-10       6/7/12       14.5       99.7       60	1	NMOCL	ACTION		100	250	Sample ID	Date	(mg/kg)				at sets to prove	Here is
S-7       6/7/12       S.8       72.7       60         S-9       6/7/12       26.8       74.1       60         S-10       6/7/12       14.5       99.7       60    Set of 1/12 Set		S-6		6.7	106	60	NMOCD ACT	ION LEVEL		50				
S-9       6/7/12       26.8       74.1       60         S-10       6/7/12       14.5       99.7       60    SC-2 IS A 5-POINT COMPOSITE SAMPLE OF S-6 THROUGH S-10.          SC-2 IS A 5-POINT COMPOSITE SAMPLE OF S-6 THROUGH S-10.       SC-2 IS A 5-POINT COMPOSITE SAMPLE OF S-6 THROUGH S-10.    SC-2 IS A 5-POINT COMPOSITE SAMPLE OF S-6 THROUGH S-10.	1						66.2	6/7/12	<0.050	<0.25	<5.0	<9.8 21B, 8015B		
5-10         6/7/12         14.5         99.7         60           Image: San Juan 29-7 #157 P&a MONUMENT           San Juan 29-7 #157 P&a MONUMENT           5-10         5-10         5-6           5-10         5-10         5-6           5-10         5-9         5-6           5-10         5-7         5-8						100000	SC-2 IS A 5-PC	DINT COMP	OSITE SAME	PLE OF S-6 T	HROUGH S-	10.	ALC: NOTICE OF	
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#### **AES Field Screening Report**

Client: ConocoPhillips Project Location: San Juan 29-7 #157 Date: 6/7/2012

Matrix: Soil



Animas Environmental Services, IIC

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

Durango, Colorado 970-403-3274

	Collection	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
Sample ID	Date		North	6.7	60	12:30	106	20.0	1	DAW
S-6	6/7/2012	11:20			a second		55.3	20.0	1	DAW
S-7	6/7/2012	11:23	South	5.6	60	12:35	55.5	Concernance and a		DAW
<u> </u>	6/7/2012	11:26	East	6.8	60	12:41	72.7	20.0	1	DAW
S-8	0/1/2012			20.0	60	12:47	74.1	20.0	1	DAW
S-9	6/7/2012	11:28	West	26.8	60	12.47			1	DAW
S-10	6/7/2012	11:30	Center	14.5	60	12:53	99.7	20.0		DAW

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

DF Dilution Factor

\*Field TPH concentrations recorded may be below PQL.

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

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Debrah Water

Report Finalized:06/07/12

