District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 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 NIM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy

Santa Fe, INIVI 87505 to the appropriate NWOCD District Office.
Pit, Below-Grade Tank, or    34,59
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L x W x D
Secondary containment with leak detection   Visible sidewalls only   Other     Unspecified   Unspecified
4.  Alternative Method:  Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
5.  Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

Alternate. Please specify

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other	
☐ Monthly inspections (If netting or screening is not physically feasible)	
7.	
Signs: Subsection C of 19.15.17.11 NMAC	
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
☐ Signed in compliance with 19.15.16.8 NMAC	
8.	7 - 11
Variances and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following is requested, if not leave blank:	
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
9.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptance of the compliance for each siting criteria below in the application.	entable source
material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	epiable source
General siting	Und The
General String	
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	
	BANELY !!
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).	☐ Yes ⊠ No
- Topographic map; Visual inspection (certification) of the proposed site	Miles -
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit Non-low chloride drilling fluid	
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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Natural Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number:  or Permit Number:	NMAC 15.17.9 NMAC
11.	ENG -
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached.  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	
☐ Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	

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

adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	
	☐ Yes ☐ No
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area.	LI TES LI NO
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	
Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain FEMA map	☐ Yes ☐ No
16.	
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan 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 19.15.17.13  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  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 Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	11 NMAC 15.17.11 NMAC
17.	
Operator Application Certification:	o.f.
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and believe	eI.
Name (Print): Title:	
Signature: Date:	
e-mail address: Telephone:	
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature:  Approval Date:	212015
Title: En mandal Spocialist OCD Permit Number:	
Title: 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.	
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	
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.	complete this

22.	
Operator Closure	Certification:
	the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print):Cr	rystal Walker Title: Regulatory Coordinator
Signature:	Date: 12/7/15
e-mail address:	crystal.walker@cop.com Telephone: (505) 326-9837

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

Lease Name: Fogelson 4 1 API No.: 30-045-08664

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

#### General Plan:

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

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

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

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

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

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

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

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

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

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

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

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

A release was not determined for the above referenced well.

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

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

- 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 is missing.

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. A P&A field inspection was conducted with the landowner on 9/20/13.

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 (Missing)

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

\* Attach Additional Sheets If Necessary

#### State of New Mexico Energy Minerals and Natural Resources

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

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

**Release Notification and Corrective Action** 

Form C-141

Revised August 8, 2011

						<b>OPERA</b>			nitial Report			
				il & Gas Compa		Contact Crystal Walker						
		th St, Farmin	gton, NA	1		Telephone No.(505) 326-9837 Facility Type: Gas Well						
acility Na	ne: Fogels	son 4 1				Facility Typ	e: Gas Well					
urface Ow	ner State			Mineral C	wner l	ner BLM (SF-043260-C) API No.30-045-08664						
				LOCA	TIO	N OF RE	LEASE					
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							de <u>-107.9919</u>					
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ype of Rele						Volume of	Hour of Occurrent		ne Recovered and Hour of Discovery			
Juice of Re	icasc					Date and I	iour or occurrent	Date	and flour of Discovery			
as Immedi	ate Notice (		Yes [	No Not Re	equired	If YES, To	Whom?					
y Whom?	A FIEL				11115	Date and I	Hour					
as a Water	course Read		Yes 🛛	No		If YES, V	olume Impacting	the Watercourse	<b>3.</b>			
Vo release w	as encount	em and Reme tered during and Cleanup	the BGT	Closure.								
egulations a ublic health hould their or the environ	or the envi operations h nment. In a	are required to ronment. The nave failed to	o report as acceptant adequately OCD accep	nd/or file certain r ce of a C-141 report investigate and r	elease n ort by th emediat	otifications a e NMOCD m e contaminat	nd perform correct arked as "Final Ricon that pose a three the operator of	ctive actions for Report" does not reat to ground w responsibility for	pursuant to NMOCD rules and releases which may endanger relieve the operator of liability rater, surface water, human health or compliance with any other			
ignature:							OIL CON	SERVATIO	<u>ON DIVISION</u>			
rinted Name	e: Crystal V	Walker				Approved by	Environmental S	pecialist:				
itle: Regul	atory Coor	dinator				Approval Da	te:	Expirat	on Date:			
-mail Addre	ess: crysta	al.walker@co	p.com			Conditions of Approval:			Attached			
ate:		Phone: (505	5) 326-983	7								



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

November 02, 2015

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

FAX

RE: COPC Fogelson 4 1

OrderNo.: 1510C36

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/27/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

## **Analytical Report**

#### Lab Order 1510C36

Date Reported: 11/2/2015

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Project: COPC Fogelson 4 1

Lab ID: 1510C36-001

Client Sample ID: BGT S-1

Collection Date: 10/26/2015 8:54:00 AM

Received Date: 10/27/2015 7:30:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH					Analyst	том
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	10/29/2015	22036
<b>EPA METHOD 300.0: ANIONS</b>					Analyst	LGT
Chloride	ND	30	mg/Kg	20	10/29/2015 1:00:07 PM	22082
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/29/2015 6:05:23 PM	22053
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/29/2015 6:05:23 PM	22053
Surr: DNOP	98.7	70-130	%REC	1	10/29/2015 6:05:23 PM	22053
EPA METHOD 8015D: GASOLINE RANGE	=				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	10/28/2015 12:56:29 PM	A 22037
Surr: BFB	87.7	75.4-113	%REC	1	10/28/2015 12:56:29 PM	A 22037
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.050	mg/Kg	1	10/28/2015 12:56:29 PM	1 22037
Toluene	ND	0.050	mg/Kg	1	10/28/2015 12:56:29 PM	A 22037
Ethylbenzene	ND	0.050	mg/Kg	1	10/28/2015 12:56:29 PM	1 22037
Xylenes, Total	ND	0.099	mg/Kg	1	10/28/2015 12:56:29 PM	A 22037
Surr: 4-Bromofluorobenzene	104	80-120	%REC	1	10/28/2015 12:56:29 PM	A 22037

Matrix: SOIL

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C36

02-Nov-15

Client:

Animas Environmental

Project:

COPC Fogelson 4 1

Sample ID MB-22082

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 22082

PQL

RunNo: 29897

Prep Date: 10/29/2015

Result

Analysis Date: 10/29/2015

Units: mg/Kg

SeqNo: 910686

HighLimit

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

%RPD

%RPD

Sample ID LCS-22082

RunNo: 29897

Client ID: LCSS

Batch ID: 22082

PQL

1.5

SeqNo: 910687

Units: mg/Kg

Prep Date: 10/29/2015

Analysis Date: 10/29/2015

SPK value SPK Ref Val %REC LowLimit

HighLimit

**RPDLimit** 

Qual

Analyte Chloride

14

15.00

SPK value SPK Ref Val %REC LowLimit

92.6

110

## Qualifiers:

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

Reporting Detection Limit

- Analyte detected below quantitation limits
- Sample pH Not In Range

Page 2 of 6

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1510C36 02-Nov-15

Client:

Animas Environmental

Project:

Analyte

COPC Fogelson 4 1

Sample ID MB-22036

SampType: MBLK

TestCode: EPA Method 418.1: TPH

Client ID:

PBS

Batch ID: 22036

RunNo: 29879

Prep Date: 10/27/2015 Analysis Date: 10/29/2015

SeqNo: 910049

Units: mg/Kg HighLimit

**RPDLimit** 

Petroleum Hydrocarbons, TR

Sample ID LCS-22036

Result PQL ND 20

SampType: LCS

TestCode: EPA Method 418.1: TPH

Client ID: LCSS

Batch ID: 22036

RunNo: 29879

Prep Date: 10/27/2015

Analysis Date: 10/29/2015

SeqNo: 910050

Units: mg/Kg

Analyte

SPK value SPK Ref Val %REC LowLimit

%REC LowLimit

TestCode: EPA Method 418.1: TPH

HighLimit

**RPDLimit** 

Qual

Petroleum Hydrocarbons, TR

100

PQL SPK value SPK Ref Val 20 100.0

104

83.6

116

Client ID: LCSS02

Sample ID LCSD-22036

SampType: LCSD

Batch ID: 22036

100.0

RunNo: 29879

101

Units: mg/Kg

%RPD

%RPD

Analyte Petroleum Hydrocarbons, TR

Prep Date: 10/27/2015

Result

100

Analysis Date: 10/29/2015 PQL

20

SeqNo: 910051 SPK value SPK Ref Val %REC 0

0

LowLimit 83.6 HighLimit %RPD 116 2.79 **RPDLimit** 

Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank B

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C36 02-Nov-15

Client:

Animas Environmental

Project:

COPC Fogelson 4 1

Sample ID MB-22053	SampType: MBLK Batch ID: 22053			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS				F	RunNo: 2	9870				
Prep Date: 10/28/2015	Analysis [	)ate: 10	0/29/2015	8	SeqNo: 9	10099	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 Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.6	70	130			
Sample ID LCS-22053	Samp	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	

Sample ID LCS-22053	Tes	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID:	22053	F	RunNo: 2	9870				
Prep Date: 10/28/2015	Analysis Date:	10/29/2015	8	SeqNo: 9	10100	Units: mg/k	(g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10 50.00	0	86.3	57.4	139			186
Surr: DNOP	4.4	5.000		87.1	70	130			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 4 of 6

- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C36

02-Nov-15

Client: Project: Animas Environmental COPC Fogelson 4 1

Sample ID MB-22037 TestCode: EPA Method 8015D: Gasoline Range SampType: MBLK RunNo: 29859 Client ID: PBS Batch ID: 22037 Prep Date: 10/27/2015 Analysis Date: 10/28/2015 SeqNo: 909453 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Gasoline Range Organics (GRO) ND 5.0 86.7 Surr: BFB 870 1000 75.4 113

TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-22037 SampType: LCS Batch ID: 22037 Client ID: LCSS RunNo: 29859 Units: mg/Kg Prep Date: 10/27/2015 Analysis Date: 10/28/2015 SeqNo: 909454 %REC %RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit Qual Gasoline Range Organics (GRO) 26 5.0 25.00 0 105 79.6 122 Surr: BFB 940 1000 93.9 754 113

Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Batch ID: R29859 RunNo: 29859 Client ID: PBS SegNo: 909477 Units: %REC Prep Date: Analysis Date: 10/28/2015 %RPD **RPDLimit** Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit Qual Surr: BFB 870 1000 87.0 75.4 113

TestCode: EPA Method 8015D: Gasoline Range Sample ID 2.5UG GRO LCS SampType: LCS Client ID: Batch ID: R29859 RunNo: 29859 LCSS Prep Date: SeqNo: 909478 Units: %REC Analysis Date: 10/28/2015 %RPD **RPDLimit** Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit Qual Analyte Surr: BFB 950 1000 95.1 75.4 113

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 5 of 6

- P Sample pH Not In Range
- RL Reporting Detection Limit

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C36

02-Nov-15

Client: Animas Environmental
Project: COPC Fogelson 4 1

TestCode: EPA Method 8021B: Volatiles Sample ID MB-22037 SampType: MBLK Batch ID: 22037 RunNo: 29859 Client ID: PBS Units: mg/Kg SeqNo: 909488 Prep Date: 10/27/2015 Analysis Date: 10/28/2015 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual ND 0.050 Benzene ND 0.050 Toluene Ethylbenzene ND 0.050 ND 0.10 Xylenes, Total 80 120 1.000 105 Surr: 4-Bromofluorobenzene 1.1

Sample ID LCS-22037	CS-22037 SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS Batch ID: 22037		F	RunNo: 29859							
Prep Date: 10/27/2015	Analysis [	Date: 10	0/28/2015	8	SeqNo: 9	09489	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	113	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

#### Qualifiers:

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

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Hail Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

## Sample Log-In Check List

Client Name: Animas Environmental Work Order Num	ber 1510C36		RcptNo: 1	
Received by/date: SA 102715				
Logged By: Lindsay Mangin 10/27/2015 7:30:00	AM	of fillings		
Completed By: Lindsay Mangin 10/27/2015 9:43:44	AM	Andythero		
Reviewed By: 10 27 19	5	000		
10/				
Chain of Custody	Yes	No 🗆	Not Present	
Custody seals intact on sample bottles?     Is Chain of Custody complete?	Yes 🗹	No 🗆	Not Present	
3. How was the sample delivered?	Courier			
3, The was the sample delivered:	School			
Log In				
4. Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA 🗆	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
6. Sample(s) in proper container(s)?	Yes 🗸	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🗸	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗸	No 🗆		
9. Was preservative added to bottles?	Yes 🗌	No 🗸	NA 🗆	
10.VOA vials have zero headspace?	Yes 🗆	No 🗆	No VOA Vials	
11, Were any sample containers received broken?	Yes	No 🗸	# of preserved	
		Mr. []	bottles checked for pH:	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No 🗆		>12 unless note
13. Are matrices correctly identified on Chain of Custody?	Yes 🗸	No L	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗸	No 🗆	400 00 000	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗸	No 🗆	Checked by:	
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No L	NA 🗹	
Person Notified: Dat	e			
By Whom: Via	eMail	Phone Fax	In Person	
Regarding:				
Client Instructions:				
17. Additional remarks:				
18. Cooler Information			-6.1	
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date	Signed By		

Chain-of-Custody Record  nt: Animas Environmental Services, LLC  ling Address: 604 W Pinon St.  Farmington, NM 87401  ne #: 505-564-2281  ail or Fax#: eskyles@animasenvironmental.com  QC Package:				X Standard				HALL ENVIRONMENTAL ANALYSIS LABORATORY  www.hallenvironmental.com  4901 Hawkins NE - Albuquerque, NM 87109  Tel. 505-345-3975 Fax 505-345-4107  Analysis Request											
Standard			Sampler: C. Lameman																
NELAP Other			On Ice: ⊠ Yes □ No															Î	
EDD (T	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX - 8021B	TPH - EPA 418.1	Chlorides - 300.0										Air Bubbles (Y or N)
16-15	0854	SOIL	BGT S-1	1 - 4 oz.	. cool	-001	X	X	X										
								4	X	10	-sli	5							
											PET.	ES							
					71.7.011														
													17		-	-		-	
10/18 20/18	Time: 1632 Time: 1748	Relinquish Relinquish	ih_	Received by: Date Time				WO# Supervisor: Jack Birchfield USERID GARRECD											



