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
	Permit or Closure Plan Application
Type of action: Below grade tank registration	n
Permit of a pit or proposed a	lternative method
Closure of a pit, below-grade ☐ Modification to an existing p	e tank, or proposed alternative method
	for an existing permitted or non-permitted pit, below-grade tank,
or proposed alternative method	
Instructions: Please submit one application (Form C-	144) per individual pit, below-grade tank or alternative request
	ability should operations result in pollution of surface water, ground water or the uply with any other applicable governmental authority's rules, regulations or ordinances.
1.	
Operator: <u>ConocoPhillips Company</u> OGRID #: <u>217817</u>	OIL CONS. DIV DIST. 3
Address: PO BOX 4289, Farmington, NM 87499	JAN 09 2017
Facility or well name: <u>YEAGER COM 1</u>	
API Number: <u>30-045-24015</u> OCD Permit Num	
U/L or Qtr/Qtr Section Township30N	
Center of Proposed Design: Latitude <u>36.845311</u> <u>N</u> Longitude	<u>-108.035070</u> <u>•</u> W NAD: □1927 ⊠ 1983
Surface Owner: 🛛 Federal 🗌 State 🗋 Private 🗋 Tribal Trust or Indian	n Allotment
2.	119119210
<u>Pit</u>: Subsection F, G or J of 19.15.17.11 NMAC	A Submit Seperter,
Temporary: Drilling Workover	C-141 For Classe
Permanent Emergency Cavitation P&A Multi-Well F	luid Management Low Chloride Drilling Fluid 🗌 yes 🗌 no
Lined Unlined Liner type: Thicknessmil LLDPE	HDPE PVC Other
String-Reinforced	
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: <u>120</u> bbl Type of fluid: <u>Produ</u>	iced Water
Tank Construction material: <u>Metal</u>	
Secondary containment with leak detection X Visible sidewalls, li	
□ Visible sidewalls and liner □ Visible sidewalls only □ Other _	
Liner type: Thicknessmil	OtherUNSPECIFIED
4.	
Alternative Method:	
Submittal of an exception request is required. Exceptions must be subm	itted to the Santa Fe Environmental Bureau office for consideration of approval.
5.	
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pin	
L Chain link, six feet in height, two strands of barbed wire at top (<i>Requ. institution or church</i>)	ired if located within 1000 feet of a permanent residence, school, hospital,
Four foot height, four strands of barbed wire evenly spaced between o	one and four feet
Alternate. Please specify	
Form C-144 Oil Cons	ervation Division Page 1 of 6

Oil Conservation Division

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	
 Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
 Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
 Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes No
 Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 No

 Within 100 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	Yes No
Temporary Pit Non-low chloride drilling fluid	
 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. Trans and Pite England and Palan and Tranks Parent Analization Attachment Charlelist. Subsection P of 10.15.17.00	MAC
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the down and the second sec	
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 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 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	9 NMAC 15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
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	.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

 Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the 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 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 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H₂S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC 	documents are
13. 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. Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	luid Management Pit
 Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC 	
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 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.	
 Ground water is less than 25 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	Yes No NA
 Ground water is between 25-50 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	□ Yes □ No □ NA
 Ground water is more than 100 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	□ Yes □ No □ NA
 Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	Yes No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	Yes No
 Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	
Form C-144 Oil Conservation Division Page 4 of 0	6

- 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
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 plane by a check mark in the box, that the documents are attached.	.11 NMAC 15.17.11 NMAC
17. Operator Application Certification:	
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and beli	ief.
Name (Print): Title:	
Signature: Date:	
e-mail address: Telephone:	
e-mail address: Telephone: <u>OCD Approva</u> l: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: Title OCD Permit Number:	
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	
18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	the closure report.
 18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 100 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 	the closure report.
 18. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 100 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.

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 Coordinator		
Signature:	Gotal U	alter	Date:	1/16/2017
e-mail address:	crystal.walker@cop.com	Telephone: (505) 326-9837		-

ConocoPhillips Company San Juan Basin Below Grade Tank Closure Report

Lease Name: Yeager Com 1 API No.: 30-045-24015

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:

 COPC 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, COPC 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.

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

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 COPC or the division determines that a release has occurred, then COPC 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.

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 COPC 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 COPC'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. COPC 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 be 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)

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr.

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

1220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505	5	S	anta F	e, NM 875	505					
			Rel	ease Notifi	catio	n and Co	orrective A	ctio	n			
						OPERA	TOR		Initia	al Report	\boxtimes	Final Repor
Name of Co	ompany C	onocoPhillip	os Compa	iny		Contact Cr	ystal Walker					
		th St, Farmin					No.(505) 326-98	337				
Facility Nat			8,-				be: Gas Well					
									1			
Surface Ow	mer FEDE	ERAL		Mineral (Owner	FEDERAL			API No	. 30-045-2	24015	
				LOC	ATIO	N OF RE	LEASE					
Unit LetterSectionTownshipRangeFeet from theNorth/South LineFeet from theEast/West LineCountyC630N11W990North1650WestSan Juan												
		1	Latitude	36.845311		Longitud	le108.0350	70				
					TURE	OF REL						
Type of Rele	ase Prod	luced Water		11741	URL	Volume of		nown	Volume F	Recovered		
		ow Grade Ta	nk			Date and H	Hour of Occurrence	ce	Date and	Hour of Dis	covery	·
						Unkr			6/29/2009)		
Was Immedia	ate Notice (Yes [No 🛛 Not R	equired	If YES, To	Whom?					
By Whom?						Date and H	lour					
Was a Water	course Read	ched?					olume Impacting t	the Wat	tercourse.			
			Yes 🛛 🛛	No								
		em and Reme are activities			ing in c	onstituents ex	cceeded standard	ls outli	ned by 19.1	5.17.13 NM	IAC.	
NMOCD act score of 20. completed w attached for I hereby certi regulations a public health	tion levels f Samples w rith confirm review. ify that the i ll operators or the envi	information gi are required to ronment. The	re specific and analy ing showi iven above o report and acceptance	ed in NMOCD's ytical results weing results before the is true and comp nd/or file certain the of a C-141 rep	plete to release r	e applicable M CD action lev the best of my notifications a ne NMOCD m	s, Spills and Rele NMOCD action le els. No further v knowledge and u nd perform correct arked as "Final R	evels. work w indersta	An excavat ill be perfor and that purs tions for rela	ion of 44' X rmed. The suant to NM eases which ieve the oper	OCD remay en	20' was eport is ules and adanger f liability
or the enviror	nment. In a		OCD accep				ion that pose a thr e the operator of the operator operato	respons	sibility for c	ompliance v	with any	
Signature:	6	tal l	Wal	tu		OIL CONSERVATION DIVISION						
Printed Name	e: Crystal V	Walker				Approved by	Environmental S	pecialis	st:			
Title: Regula	atory Coord	linator				Approval Da	te:		Expiration	Date:		
E-mail Addro	ess: cr	ystal.walker@				Conditions o	f Approval:			Attached		
Date: Q	2017	Phone: (505	5) 326-983	7								

* Attach Additional Sheets If Necessary



August 26, 2009

Project No. 96052-1581

Ms. Gwen Frost ConocoPhillips 3401 East 30th Street Farmington, New Mexico 87401

Phone (505) 326-9549 Fax (505) 599-4005

RE: BGT CLOSURE DOCUMENTATION YEAGER COM #1 WELL SITE, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Frost,

Enclosed please find the field notes and analytical results for below grade tank (BGT) closure activities performed at the Yeager COM #1 well site located in Section 06, Township 30N, Range 11W, San Juan County, New Mexico. Prior to Envirotech's arrival, the area of release had been excavated by Kelley Oilfield Services to approximately 17' x 17' x 14' deep; see enclosed *Field Notes*.

Five (5) samples were collected from the excavation. One (1) sample was collected from each of the four (4) walls and one (1) sample was collected from the bottom of the excavated area. The sample collected from the west wall was analyzed in the field for organic vapors only using a Photo Ionization Detector (PID). All other samples were analyzed in the field for TPH via USEPA Method 418.1 and for organic vapors using a PID. The sample from the bottom of the excavation was also analyzed in the field for total chlorides. The sample collected from the west wall returned results of 707 ppm organic vapors. The samples collected from the north and the east walls were below the regulatory limits of 100 ppm TPH. Organic vapor readings ranged from 13.7 to 15.3 ppm. The sample collected from the south wall returned results of 55 ppm organic vapors. Additionally, the sample returned results above 100 ppm TPH. The sample collected from the bottom of the excavation returned results below 250 ppm chlorides; however the sample was above the regulatory limit of 100 ppm TPH; see enclosed Table 1, Summary of Analytical Results. The sample from the bottom of the excavation was collected into a four (4)-ounce glass jar capped headspace free and transported on ice via chain of custody to Envirotech's Laboratory for analysis for benzene and BTEX using USEPA Method 8021 and for total chlorides using USEPA Method 4500. The sample returned results below the regulatory limits of 10 ppm benzene, 50 ppm BTEX and 250 total chlorides. Because the samples collected from the west wall and from the bottom of the excavation were above 100 ppm TPH, a release was confirmed.

A brief site assessment was conducted and a wash was observed approximately 145 feet from the Yeager COM #1 well site. Therefore, the cleanup standard for the site was determined to be 100 ppm total petroleum hydrocarbons (TPH) and 100 ppm organic vapors, pursuant to New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases.

The excavation was extended to approximately 44' x 30' x 20' deep where sandstone was encountered on the bottom and visual contamination was noted below 14 feet BGS on the north wall. One (1) sample was collected from the north wall and one (1) sample was collected from the south wall. The two (2) samples were analyzed in the field for TPH via USEPA Method 418.1 and for organic vapors using a PID. The sample from the south wall returned results below the regulatory limits of 100 ppm TPH and 100 ppm organic vapors; however, the sample from the north wall returned results above 100 ppm TPH and 100 ppm organic vapors. The sample from the north wall was collected in a four (4)-ounce glass jar, capped headspace free and transported on ice via chain of custody to Envirotech's Laboratory for analysis for TPH using USEPA Method 8015 and for benzene and BTEX using USEPA Method 8021. The sample returned results below the regulatory limits of 100 ppm TPH, 10 ppm benzene and 50 ppm BTEX.

Envirotech, Inc. returned on June 30, 2009, to complete cleanup activities at the Yeager COM #1 well site. Prior to Envirotech's arrival, the area of release had been excavated to final extents of 47' x 31' x 20' deep. Two (2) samples were collected, one (1) from the west wall and one (1) from the bottom of the excavation at 20 feet BGS where maximum reasonable extent was reached due to sandstone encountered on the bottom. The samples were analyzed in the field for TPH via USEPA Method 418.1 and for organic vapors using a PID. The sample from the west wall returned results below the regulatory standards of 100 ppm TPH and the 100 ppm organic vapors. The sample from the bottom of the excavation returned results above 100 ppm TPH and 100 ppm organic vapors. The sample from the bottom of the bottom of the excavation was collected into a four (4)-ounce glass jar, capped headspace free and transported on ice via chain of custody to Envirotech's Laboratory for analysis for TPH using USEPA Method 8015 and for benzene and BTEX using USEPA Method 8021. The sample returned results below 10 ppm benzene and 50 ppm BTEX but above 100 ppm TPH; however, further excavation was not possible due to maximum reasonable extent being reached; see enclosed *Table 1, Summary of Analytical Results*.

Approximately 1,080 cubic yards of contaminated soil were transported by Kelley Oilfield Services to IEI's NMOCD permitted soil remediation facility located near Crouch Mesa, New Mexico. Envirotech, Inc. recommends no further action in regards to this incident.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC. mi Melenight

Toni McKnight, EIT Staff Geologist tmcknight@envirotech-inc.com

Enclosure(s): Field Notes Summary of Analytical Results Analytical Results

Cc: Client File No. 96052

1 ,									
PAGE NO: OF	1		ONMENTA 5796 U.S	ROTEC AL SCIENT S. HIGHWA	ENVIRONMENTAL SPECIALIST:				
DATE STARTED: G - J	9-046	F			AEXICO 8740	1		3630,7465	
DATE FINISHED:	And Annual Contention		PHO	NE: (505) 63	32-0615	and the second	LONG: h) 108°2.1026'	
FIELD REPORT: BGT / PIT CLOSURE VERIFICATION									
LOCATION: NAME: Yeager Com Well #: TEMP PIT: PERMANENT PIT: BGT:									
LEGAL ADD: UNIT: NE POW SEC: 6 TWP: BON RNG: LIW PM: NM									
QTR/FOOTAGE: 990	FNCJ	1650'FW	CNTY: SO	in Ju	in	ST: N	m		
EXCAVATION APPROX:	-17'	FT. X	17	FT. X	14	FT. DEEP	CUBIC YA	PDACE.	
DISPOSAL FACILITY:	- 1 /	П. А	17		TION METHO	and the second design of the s	CUBIC IA	KDAGE:	
LAND OWNER:			ADL 20	-045-5				E 410/	
	T. ALI	1	API: SU	WALLED I	MTULEANT	BGT / PIT		20x Brancher	
CONSTRUCTION MATERIA			And the second second second		WITH LEAK I		: NO		
LOCATION APPROXIMATI		100	FT. 150	2°	FROM WELL	HEAD			
DEPTH TO GROUNDWATE		The second				10			
TEMPORARY PIT - GF									
BENZENE ≤ 0.2 mg/kg, B	$TEX \le 50 \text{ mg/}$	kg, GRO & DRO	O FRACTIO	N (8015) ≤ 50	0 mg/kg, TPH (418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 500 mg/kg	
TEMPORARY PIT - GR	OUNDWAT	'FR >100 FFF'	T DEEP						
BENZENE ≤ 0.2 mg/kg, B				V (8015) < 50	mg/kg TPH (118 11 < 2500	ma/ka CUI	ORIDES < 1000 malka	
		ig, ORO & DRC	TRACTION	4 (8013) \$ 50	o mg/kg, Trit(-	+10.1) \\$ 2500	ing/kg, CHL	UKIDES S 1000 mg/kg	
PERMANENT PIT OR I	BGT								
BENZENE ≤ 0.2 mg/kg, B	$TEX \le 50 \text{ mg/}$	kg, TPH (418.1)	≤ 100 mg/kg	g, CHLORIDE	$ES \le 250 \text{ mg/kg}$				
				FIEL	D 418.1 ANAL	YSIS			
	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g	mL FREON	and the second se	READING	CALC. (mg/kg)	
10:23	5+2200	200 STD	-		~	-	218	219	
	10:33	Bottomold	1	5	20	4	377	1508	
		Swall'	2	5	20	4	69	276	
	10:50	Ewall	3	5.	20	4	10	40	
	10:52	Nwall	4	5-	20	4	23	47	
			5						
			0				_		
PERIMI	ETER		FIELD C	HLORIDES	S RESULTS		PRO	DFILE	
1	1	NN	SAMPLE		CALC.		and the second state of th		
		ive.	ID	READING	(mg/kg)				
149'soursh MRET			Bottome 14	41= 125	<25				
144'town MRE	-								
17 M	TT T								
E	IOF	AST						1-	
	Err					1			
1 1 1			I	PID RESUL	TS			14'	
100 15	EPI	· }			RESULTS				
	ISTT.		SAMP	PLE ID	(ppm)	1			
I I I I I I I I I I I I I I I I I I I	P		StD 10		103			1 .	
1 100		1 1	Bottome	14'	2447	1100	Cal	a material	
		1 1					VANIA	11001814	
	T		WWall		707	Jug	Junior	7	
Auntin 12	171				55	ug	Junior	g material	
Pundine 12	1L	TOUT	S wall E wal	u	55	ug	Jano		
	L- cocation		WWall 5 wall E wal N wh	и и	55	ug			
LAB SAMPLES	Eocation S	NOTES: Lo	WWall 5 word E way N wh ash 214	и и	55	ug			
LAB SAMPLES SAMPLE ID ANALYSIS	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7				
LAB SAMPLES SAMPLE ID ANALYSIS BENZENE	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7				
LAB SAMPLES SAMPLE ID ANALYSIS	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7				
LAB SAMPLES SAMPLE ID ANALYSIS BENZENE BTEX	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7				
LAB SAMPLES SAMPLE ID ANALYSIS BENZENE BTEX GRO & DRO	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7				
LAB SAMPLES SAMPLE ID ANALYSIS BENZENE BTEX GRO & DRO	RESULTS	NOTES: W	WWall 5 world E Wal N wn ash 214 6 w	u u 4'12	55 15.3 13.7			idtu 17×17 d crater as Strong ODDR	

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Client: Phillips			(5	05) 632-0615 U.S. Hwy 64, Far	(800) 362-18	79	Location N C.O.C. No				
FIELD REPORT: SPILL CLOSURE VERIFICATION PAGE NO: 1 OF 1 DATE STARTED: 6-29-											
LOCATION: NAME: Geager Com Well#: DATE FINISHED: 6-30-09											
QUAD/UNIT: NE/NW SEC: G TWP: 30N RNG: 1W PM: NM CNTY: STST: NM ENVIRONMENTAL											
QTR/FOOTAGE: 990' F	NL 2 16:	50'FWL	CONTRAC	CTOR: Koll	ley oilfi	eld	SPECIALI	ST: T	ZM		
EXCAVATION APPROX:	44			FT. X	10	FT. DEEP					
DISPOSAL FACILITY: I	EI			REMEDIATI	ON METHO	the second se	d par	m			
LAND USE:	0.0	20-	LEASE:	MATERIAL		LANDOW					
CAUSE OF RELEASE: LO		BGT		MATERIAL	the second se		insate				
SPILL LOCATED APPROX	IMATELY:	100	FT. 15	0°	FROMLe						
DEPTH TO GROUNDWAT		NEAREST						WATER:	= 144'		
NMOCD RANKING SCORE	0.00	N.		PH CLOSURI			PPM	6			
SOIL AND EXCAVATION Contaminated BGT is being additional staining	DESCRIPTIC	<u>IN:</u>	Δ.,	7.0612	K and	201					
Contaminate a	Dort .W	ors stron	ng oclo	r a cur	Bad	incou	36.		, ,		
BGT is being	REMOVE	dor Di	scovere	of ane	BGT	was b	eing the	moved	1		
additional staining	y Noted	ONNW	all 71	4' 1365							
SAMPLE DESCRIPITION	TIME	SAMPLE LD.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CA	LC. ppm		
South wall	12:27			S	20	4	9		C		
NWALL 2	14:44	1		15	20	4	294		8		
SPILL PER	IMETER			OVM RESULTS			SPILL P	ROFILE			
		Nr	SAMPLE ID Swalt M Ladd 2	FIELD HEAD							
44/	1		ID SAMPLE ID	AB SAMPLI ANALYSIS	ES TIME				120		
TRAVEL NOTES:	_CALLED OU	JT:			ONSITE:						

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Client: CONOCOPhillips	C	(50	nviro 05) 632-0615 U.S. Hwy 64, Fam	(800) 362-18	79	Location N C.O.C. No				
FIELD REPORT: SPILL CL	PAGE NO: 1 OF 1 DATE STARTED: 6-30-09									
LOCATION: NAME: Upager (QUAD/UNIT: NE/NW SEC: 6 QTR/FOOTAGE: 990'FNLJ 6	ENVIRON	DATE FINISHED: 6-30-08 ENVIRONMENTAL SPECIALIST: TLM								
EXCAVATION APPROX: 47 FT. X 3/ FT. X 20 FT. DEEP CUBIC YARDAGE: DISPOSAL FACILITY: FEA REMEDIATION METHOD: Landform LAND USE: Grazmy LEASE: LAND OWNER:										
CAUSE OF RELEASE: BGY ?? SPILL LOCATED APPROXIMATELY:		FT. 150		FROM W	elliad					
NMOCD RANKING SCORE: 20	DEPTH TO GROUNDWATER: 7/00' NEAREST WATER SOURCE: 7/000 NEAREST SURFACE WATER: 2/44' NMOCD RANKING SCORE: 20 NMOCD TPH CLOSURE STD: 100 PPM SOIL AND EXCAVATION DESCRIPTION: Dug out West Wall, collected Samples From Bottome 20' N, S, E Walls Passed on 6-29-09, Weather, Sunny, calm, orgetation green, contaminated Soil, Black to dark grey.									
			Contami WEIGHT (g)							
Stored Unit Final 10:03 West Unit Final 10:05 Bottom 0.20 - Sundation 10:29			5	20	4	215 10 314	215 40 1256			
SPILL PERIMETER			OVM RESULTS			SPILL F	PROFILE			
USun , Mil-L	NN	SAMPLE ID SHOIOD W WWL F Bottom 0 20	FIELD HEAD (ppr 2.5 2.5	n)						
A LEMAN										
Portine 47			ANALYSIS		17. San	lstm	e sshale			
TRAVEL NOTES:CALLED OU	UT:			ONSITE:						

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Table 1, Summary of Analytical Results ConocoPhillips Yeager COM #1 Well Site Section 06. Township, 30N, Range 11W San Juan County, New Mexico Project No. 96052-1581

Sample Description	Sample Number	Date	USEPA Method 418.1 TPH (ppm)	MVO (mqq)	Field Chlorides	USEPA Method 4500 Chlorides (ppm)	USEPA Method 8015 TPH (ppm)	USEPA Method 8021 BTEX (ppm)	USEPA Method 8021 Benzene (ppm)
NMOCD Standards	NA	NA	100	100	250	250	100	50	10
Bettom (a) 14*	1	6/29/2009	1510	2447	ND	30	NS	0.683	0.004
West Wall	N/A	8/29/2009	NS	707	NS	NS	NS	NS	NS
South Wall	2	6/29/2009	276	55	NS	NS	NS	N\$	NS
East Wall Final	3	6/29/2009	40	15.3	NS	NS	NS	NS	NS
North Wall	4	6/29/2009	92	13.7	NS	NS	NS-	NS	NS
South Wall Final	5	6/29/2009	36	23.2	NS	NS	NS	NS	NS
North Wall Final	6	6/29/2009	108	246	NS	NS	NQ	0.0492	ND
West Wall	7	6/29/2009	NS	707	NŞ	NS	NS-	NS	NS
West Wall Final	1	6/30/2009	40	2.5	NS	N5	NS	NS	N5
Bottom @ 20' Sandstone	2	6/30/2009	1260	2,209	NS	NS	272	£i.88	0.0078

* Values in BOLD above regulatory standards ND = Non Detect NS = Not Sampled



Client:	ConocoPhillips	Project #:	96052-1581
Sample No.:	1	Date Reported:	7/13/2009
Sample ID:	Bottom @ 14'	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons 1,510 5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Toni Millnight Analyst

Toni McKnight Printed

Review

Greg Crabtree Printed



Client:	ConocoPhillips	Project #:	96052-1581
Sample No .:	2	Date Reported:	7/13/2009
Sample ID:	South Wall	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)
Falameter	(ing/kg)	(ing/kg)

Total Petroleum Hydrocarbons2765.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Melanght Analyst

Toni McKnight Printed

Greg Crabtree Printed



Client:	ConocoPhillips	Project #:	96052-1581
Sample No.:	3	Date Reported:	7/13/2009
Sample ID:	East Wall	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons	40	5.0
------------------------------	----	-----

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Millmight Analyst

Toni McKnight Printed

Review

Greg Crabtree	
Printed	



Client:	ConocoPhillips	Project #:	96052-1581
Sample No .:	4	Date Reported:	7/13/2009
Sample ID:	North Wall	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	92	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

ais Milmught Analyst

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Toni McKnight Printed

Sea Call

Review

Greg Crabtree	
Printed	



Client:	ConocoPhillips	Project #:	96052-1581
Sample No.:	5	Date Reported:	7/13/2009
Sample ID:	South Wall Final	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.	
	Concentration	Limit	
Parameter	(mg/kg)	(mg/kg)	

Total Petroleum Hydrocarbons	36	5.0
------------------------------	----	-----

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Mellinger Analyst

Toni McKnight Printed

Review

Greg Crabtree Printed



Client:	ConocoPhillips	Project #:	96052-1581
Sample No.:	6	Date Reported:	7/13/2009
Sample ID:	North Wall Final	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

	Total Petroleum Hydrocarbons	108	5.0
--	------------------------------	-----	-----

ND = Parameter not detected at the stated detection limit.

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis **References:** of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Millmight onu Analyst

Toni McKnight Printed

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Review

Greg Crabtree	
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CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM **HYDROCARBONS**

Cal. Date: 29-Jun-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	218	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Toni Miknat

Analyst

Date

Toni McKnight Print Name

Review

Tliston

Date

Greg Crabtree Print Name



Field Chloride

Client:	ConocoPhillips	Project #:	96052-1581
Sample No.:	1	Date Reported:	7/13/2009
Sample ID:	Bottom @ 14'	Date Sampled:	6/29/2009
Sample Matrix:	Soil	Date Analyzed:	6/29/2009
Preservative:	Cool	Analysis Needed:	Chloride
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)	
Field Chloride	ND	27.0	

ND = Parameter not detected at the stated detection limit.

References: "Standard Methods for the Examination of Water and Wastewater", 18th ed., 1992 Hach Company Quantab Titrators for Chloride

Comments: Yeager COM #1

Tori Malinight Analyst

Toni McKnight Printed

Clh Review

Greg Crabtree Printed



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1581
Sample ID:	North Wall Final	Date Reported:	07-02-09
Laboratory Number:	50738	Date Sampled:	06-29-09
Chain of Custody No:	7376	Date Received:	06-29-09
Sample Matrix:	Soil	Date Extracted:	06-30-09
Preservative:	Cool	Date Analyzed:	07-01-09
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
otal Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Confirmation Sampling/Yaeger Com #1.

Analyst

hristen Water Review



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	QA/QC 07-01-09 QA/0 50726 Methylene Chlor N/A		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed:		N/A 07-02-09 N/A N/A 07-01-09
	N/A		Analysis Reque	sted:	ТРН
	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept: Range
Gasoline Range C5 - C10	05-07-07	9.8650E+002	9.8689E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0816E+003	1.0820E+003	0.04%	0 - 15%
Blank Conc. (mg/L-mg/Kg)	THE REAL PROPERTY AND INCOME.	Concentration		Detection Limit	
Gasoline Range C5 - C10	(- spanific and an and a spanific and a span	ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
-					
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range	
Gasoline Range C5 - C10	10.8	10.7	0.9%	0 - 30%	
Diesel Range C10 - C28	500	497	0.6%	0 - 30%	
-					
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	10.8	250	264	101%	75 - 125%
Diesel Range C10 - C28	500	250	744	99.2%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 50726, 50738, 50739, and 50745.

Analyst

hristen Walten Review



Client:	ConocoPhillips	Project #:	96052-1581
Sample ID:	Bottom @ 14'	Date Reported:	07-02-09
Laboratory Number:	50737	Date Sampled:	06-29-09
Chain of Custody:	7376	Date Received:	06-29-09
Sample Matrix:	Soil	Date Analyzed:	07-01-09
Preservative:	Cool	Date Extracted:	06-30-09
Condition:	Intact	Analysis Requested:	BTEX

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	4.0	0.9	
Toluene	41.0	1.0	
Ethylbenzene	76.6	1.0	
p,m-Xylene	460	1.2	
o-Xylene	101	0.9	
Total BTEX	683		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Confirmation Sampling / Yaeger Com #1.

Analyst

misturgwaten Review



Client:	ConocoPhillips	Project #:	96052-1581
Sample ID:	North Wall Final	Date Reported:	07-02-09
Laboratory Number:	50738	Date Sampled:	06-29-09
Chain of Custody:	7376	Date Received:	06-29-09
Sample Matrix:	Soil	Date Analyzed:	07-01-09
Preservative:	Cool	Date Extracted:	06-30-09
Condition:	Intact	Analysis Requested:	BTEX

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	

Benzene	ND	0.9	
Toluene	2.4	1.0	
Ethylbenzene	6.2	1.0	
p,m-Xylene	26.4	1.2	
o-Xylene	14.2	0.9	
Total BTEX	49.2		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Confirmation Sampling / Yaeger Com #1.

Analyst

moster m Walters Review



ND

0.1

Client:	N/A		Project #:				
				N/A			
Sample ID:	07-01-BT QA/QC		Date Reported:		07-02-09		
Laboratory Number:	50726		Date Sampled:		N/A		
Sample Matrix:	Soil		Date Received:		N/A		
Preservative:	N/A		Date Analyzed:		07-01-09		
Condition:	N/A		Analysis:		BTEX		
Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.		
Detection Limits (ug/L)		Accept. Ra	nge 0 - 15%	Conc	Limit		
Benzene	5.6499E+006	5.6612E+006	0.2%	ND	0.1		
Toluene	5.1923E+006	5.2027E+006	0.2%	ND	0.1		
Ethylbenzene	4.5287E+006	4.5377E+006	0.2%	ND	0.1		
p,m-Xylene	1.1645E+007	1.1668E+007	0.2%	ND	0.1		

4.3016E+006

0.2%

4.2930E+006

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	8.2	8.1	1.2%	0 - 30%	0.9
Toluene	35.7	34.5	3.4%	0 - 30%	1.0
Ethylbenzene	73.3	76.4	4.2%	0 - 30%	1.0
p,m-Xylene	181	187	3.1%	0 - 30%	1.2
o-Xylene	103	106	3.7%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	8.2	50.0	57.7	99.1%	39 - 150
Toluene	35.7	50.0	82.6	96.4%	46 - 148
Ethylbenzene	73.3	50.0	121	98.3%	32 - 160
p,m-Xylene	181	100	279	99.4%	46 - 148
o-Xylene	103	50.0	150	98.1%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

o-Xylene

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996. Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 50726 and 50737 - 50739.

Analyst

"hristurn Walter Beview



Chloride

Client:	ConocoPhillips	Project #:	96052-1581
Sample ID:	Bottom @ 14'	Date Reported:	07-06-09
Lab ID#:	50737	Date Sampled:	06-29-09
Sample Matrix:	Soil	Date Received:	06-29-09
Preservative:	Cool	Date Analyzed:	07-02-09
Condition:	Intact	Chain of Custody:	7376

Parameter

Concentration (mg/Kg)

Total Chloride

30

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Confirmation Sampling / Yeager Com #1.

Analyst

Misthe Mulalters Review

Client: Conoco	Philip	05 (Project Name / Location: Continuo on Sumpling Log Fi					ANALYSIS / PARAMETERS														
Client Address:			Sampler Name:						8015)	4 8021)	8260)	s										
Client Phone No.:			Client No.: 9605						TPH (Method 8015)	BYEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	I / Anion		with H/P		TPH (418.1)	RIDE			Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	N	ample Matrix	No./Volume of Containers	11-01 11		Hall	BYEX	Voc (RCRA	Cation /	RCI	TCLP	PAH	TPH (CHLORIDE	_		Samp	Samp
141	G/29/ 09	10:33		Solid Solid	Sludge Aqueous Sludge	1402		V										V			-	~
North Wall Final	69	M:4	50738	Solid	Aqueous Słudge	1402		V	V	V											~	-
				Solid Soil	Aqueous Sludge			-														
				Solid Solid Solid	Aqueous Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
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Client:	ConocoPhillips	Project #:	96052-1581
Sample No .:	1	Date Reported:	7/13/2009
Sample ID:	West Wall Final	Date Sampled:	6/30/2009
Sample Matrix:	Soil	Date Analyzed:	6/30/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	40	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Nellnight Analyst

Review

Toni McKnight Printed

Greg Crabtree Printed



Client:	ConocoPhillips	Project #:	96052-1581
Sample No .:	2	Date Reported:	7/13/2009
Sample ID:	Bottom @ 20' Sandstone	Date Sampled:	6/30/2009
Sample Matrix:	Soil	Date Analyzed:	6/30/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,260	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Yeager COM #1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Ministr au Analyst

Toni McKnight Printed

Review

Greg Crabtree	
Printed	



CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date: 30-Jun-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	215	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Ini Mclanght

7-13-09

Toni McKnight Print Name

Review

13/09

Greg Crabtree Print Name



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative:	ConocoPhillips Bottom @ 20'-Shale/Sandstone 50739 7377 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed:	96052-1581 07-02-09 06-30-09 06-30-09 06-30-09 07-01-09
Preservative:	Cool	Date Analyzed:	07-01-09
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	122	0.2
Diesel Range (C10 - C28)	150	0.1
otal Petroleum Hydrocarbons	272	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Confirmation/Spill Cleanup/Yaeger Com #1.

Analyst

mother mudaele Review



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC		Project #:		N/A
Sample ID:	07-01-09 QA/0	QC	Date Reported:		07-02-09
Laboratory Number:	50726		Date Sampled:		N/A
Sample Matrix:	Methylene Chlor	ride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-01-09
Condition:	N/A		Analysis Reque		ТРН
THE ADDRESS OF A DECK	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	9.8650E+002	9.8689E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0816E+003	1.0820E+003	0.04%	0 - 15%
Blank Conc. (mg/L - mg/Kg)		Concentration		Detection Limit	
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	10.8	10.7	0.9%	0 - 30%	
Diesel Range C10 - C28	500	497	0.6%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	10.8	250	264	101%	75 - 125%
Diesel Range C10 - C28	500	250	744	99.2%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 50726, 50738, 50739, and 50745.

Analyst

misturn Weters Review



Client:	ConocoPhillips	Project #:	96052-1581
Sample ID:	Bottom @ 20'-Shale/Sandstone	Date Reported:	07-02-09
Laboratory Number:	50739	Date Sampled:	06-30-09
Chain of Custody:	7377	Date Received:	06-30-09
Sample Matrix:	Soil	Date Analyzed:	07-01-09
Preservative:	Cool	Date Extracted:	06-30-09
Condition:	Intact	Analysis Requested:	BTEX

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	

Benzene	7.8	0.9
Toluene	247	1.0
Ethylbenzene	376	1.0
p,m-Xylene	4,730	1.2
o-Xylene	1,520	0.9
Total BTEX	6,880	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Fluorobenzene 1,4-difluorobenzene	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Confirmation/Spill Cleanup/ Yaeger Com #1.

Analyst

hristung Waete Review



Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	N/A 07-01-BT QA/QC 50726 Soil N/A N/A		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis:		N/A 07-02-09 N/A N/A 07-01-09 BTEX			
Callbration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: Accept. Ran	%Diff. ige 0 - 15%	Blank Conc	Detect Limit			
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	5.6499E+006 5.1923E+006 4.5287E+006 1.1645E+007 4.2930E+006	5.6612E+006 5.2027E+006 4.5377E+006 1.1668E+007 4.3016E+006	0.2% 0.2% 0.2% 0.2% 0.2%	ND ND ND ND	0.1 0.1 0.1 0.1 0.1			

Duplicate Conc. (ug/Kg)	Sample:	Duplicate	%Diff:	Accept Range	Detect. Limit
Benzene	8.2	8.1	1.2%	0 - 30%	0.9
Toluene	35.7	34.5	3.4%	0 - 30%	1.0
Ethylbenzene	73.3	76.4	4.2%	0 - 30%	1.0
p,m-Xylene	181	187	3.1%	0 - 30%	1.2
o-Xylene	103	106	3.7%	0 - 30%	0.9

Spike Conc, (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	8.2	50.0	57.7	99.1%	39 - 150
Toluene	35.7	50.0	82.6	96.4%	46 - 148
Ethylbenzene	73.3	50.0	121	98.3%	32 - 160
p,m-Xylene	181	100	279	99.4%	46 - 148
o-Xylene	103	50.0	150	98.1%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996. Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 50726 and 50737 - 50739.

Analyst

hristung Welter Review

Client: Cono Co	Phill	DS F	Confrance / L	Location: Bottome.20'										ANAL	YSIS	PAR	AME	TERS				
Client Address:	-	5	Sampler Name:	, "	10		- 10		3015)	8021)	8260)	s										
Client Phone No.:			Client No.: 9605) -	V					TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		with H/P		(418.1)	RIDE			e Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	5	Sample Matrix	No./Volume of Containers			() HAT	BTEX	VOC (I	RCRA	Cation	RCI	TCLP	PAH	TPH (CHLORIDE			Sample	Sample
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