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

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
July 21, 2008

For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

11702

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- [ ] Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- [X] Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- [ ] Modification to an existing permit
- [ ] Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1
Operator: **ConocoPhillips Company** OGRID#: **217817**
Address: **PO Box 4289, Farmington, NM 87499**
Facility or well name: **Ella Rose 1 12**
API Number: **30-045-35340** OCD Permit Number:
U/L or Qtr/Qtr: **H(SE/NE)** Section: **34** Township **31N** Range: **11W** County: **SAN JUAN**
Center of Proposed Design: Latitude: **36.513419** °N Longitude: **107.583136** °W NAD: [ ] [X] 1983
Surface Owner: [ ] Federal [ ] State [X] Private [ ] Tribal Trust or Indian Allotment

2
[X] **Pit:** Subsection F or G of 19.15.17.11 NMAC

RCVD JAN 30 '14
OIL CONS. DIV.
DIST. 3

Temporary: [ ] Drilling [ ] Workover
[ ] Permanent [ ] Emergency [X] Cavitation [ ] P&A **(Pre-set)**
[ ] Lined [ ] Unlined Liner type: Thickness _____ mil [ ] LLDPE [ ] HDPE [ ] PVC [ ] Other _____
[ ] String-Reinforced
Liner Seams: [ ] Welded [ ] Factory [ ] Other _____ Volume: _____ bbl Dimensions L ____ x W ____ x D ____

3
[ ] **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: [ ] P&A [ ] Drilling a new well [ ] Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
[ ] Drying Pad [ ] Above Ground Steel Tanks [ ] Haul-off Bins [ ] Other _____
[ ] Lined [ ] Unlined Liner type: Thickness _____ mil [ ] LLDPE [ ] HDPE [ ] PVD [ ] Other _____
Liner Seams: [ ] Welded [ ] Factory [ ] Other _____

4
[ ] **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl Type of fluid: _____
Tank Construction material: _____
[ ] Secondary containment with leak detection [ ] Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
[ ] Visible sidewalls and liner [ ] Visible sidewalls only [ ] Other _____
Liner Type: Thickness _____ mil [ ] HDPE [ ] PVC [ ] Other _____

5
[ ] **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

pc
16

6

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pit, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

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

☐ Alternate. Please specify _____

7

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)*

8

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 19.15.3.103 NMAC

9

Administrative Approvals 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:

☒ Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration of approval. **(Cavitation pit for Pre-set)**

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10

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. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other 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. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applied to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ 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

11

Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment 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 (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 19.15.17.11 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 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API _____ or Permit _____

12

Closed-loop Systems Permit Application Attachment 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.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - 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 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API _____

☐ Previously Approved Operating and Maintenance Plan API _____

13

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14

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 ☐ Closed-loop System ☐ 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
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ 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 F 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 I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: Envirotech / JFJ Landfarm % IEI Disposal Facility Permit #: NM-01-0011 / NM-01-0010B

Disposal Facility Name: Basin Disposal Facility Disposal Facility Permit #: NM-01-005

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropraite requirements of Subsection G of 19.15.17.13 NMAC

17

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 source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 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 ☐ N/A
Ground water is between 50 and 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 ☐ N/A
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 ☐ N/A
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 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 private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal fee 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; 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 500 feet of a wetland - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confiramtion 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

18

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must bee attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19

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 belief.

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: Jonathan D. Kelly **Approval Date:** 2/21/2014

Title: Compliance Officer **OCD Permit Number:** _____

21

Closure Report (required within 60 days of closure completion): Subsection K of 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. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 8/5/2012

22

Closure Method:

☐ Waste Excavation and Removal ☐ On-site Closure Method ☒ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

#

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and opeartions?

☐ Yes (If yes, please demonstrate complilane to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

24

Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)

☐ Proof of Deed Notice (required for on-site closure)

☐ Plot Plan (for on-site closures and temporary pits)

☐ Confirmation Sampling Analytical Results (if applicable)

☐ Waste Material Sampling Analytical Results (if applicable)

☐ Disposal Facility Name and Permit Number

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude: 36.513419 Longitude: 107.583136 NAD ☐ 1927 ☒ 1983

25

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is ture, 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): Kenny Davis Title: Staff Regulatory Technician

Signature: _____ Date: 1/29/2014

e-mail address: kenny.r.davis@conocophillips.com Telephone: 505-599-4045

Burlington Resources Oil & Gas Company, LP
Cavitation Pit for Closed-Loop Locations

Design: Ella Rose 1 12

Burlington Resources Oil & Gas Company, LP will use a cavitation pit plan when the surface casing will be pre-set on closed-loop locations. The drill cuttings will be stockpiled on the surface.

Operations and Maintenance:

The cavitation pit will be operated and maintained as follows:

1. Only Fresh water and air will be used in the drilling of the surface casing.
2. The Cement used will be: Neat Cement with no additives.
3. All of the fluids will be removed within 48hrs after drilling.
4. A representative five point composite sample will be taken of the drill cuttings, after the setting of the surface casing is complete, using sampling tools and all samples will be tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the testing criteria is not met, all contents will be dug and hauled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e.

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	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500

5. The NMOCD will be notified via email of the test results of the cavitation surface as follows:

Components	Tests Method	Limit (mg/Kg)	Results
Benzene	EPA SW-846 8021B or 8260B	0.2	ND
BTEX	EPA SW-846 8021B or 8260B	50	ND
TPH	EPA SW-846 418.1	2500	168
GRO/DRO	EPA SW-846 8015M	500	ND
Chlorides	EPA 300.1	500	25.8

Closure Plan:

1. The NMOCD will be notified of the sample results and the intent to start the closure process 3-7 days prior to the drill cuttings being transported, moved, or distributed on location.
2. In the event the criteria are not met, all solids and liquids will be removed and disposed of at Envirotech (Permit #NM-01-0011) and/or Basin Disposal Facility (Permit #NM-01-005) and/or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B).
3. Testing results will be submitted with the Closure Report of the well locations Closed-Loop Permit on Form C-144.

Burlington Resources is aware that approval of this plan does not relieve Burlington Resources of liability should operations result in pollution of surface water, ground water, or the environment. Nor does approval relieve ConocoPhillips of its responsibility to comply with any other applicable governmental authority's rules and regulations.

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: ConocoPhillips

Chain Of Custody Number: 16549

Samples Received: 1/23/2014 7:35:00AM

Job Number: 96052-1706

Work Order: P401065

Project Name/Location: Ella Rose 1 #12

Entire Report Reviewed By: _____ Date: 1/28/14

Tim Cain, Laboratory Manager

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Preset Closure	P401065-01A	Soil	01/20/14	01/23/14	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Preset Closure

P401065-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*86.7 %*		*80-120*	*1404018*	*01/23/14*	*01/27/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*82.6 %*		*80-120*	*1404018*	*01/23/14*	*01/27/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1404018	01/23/14	01/27/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	30.0	mg/kg	1	1404019	01/23/14	01/27/14	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	**168**	20.0	mg/kg	1	1404023	01/23/14	01/23/14	EPA 418.1	
Cation/Anion Analysis									
Chloride	**25.8**	9.97	mg/kg	1	1404021	01/23/14	01/23/14	EPA 300.0	

ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404018 - Purge and Trap EPA 5030A										
Blank (1404018-BLK1)				Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*45.7*		*ug/L*	*50.0*		*91.4*	*80-120*			
Surrogate: Bromochlorobenzene	*46.0*		*"*	*50.0*		*92.1*	*80-120*			
Duplicate (1404018-DUP1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	1.81	0.05	"		1.78			1.64	30	
Ethylbenzene	1.08	0.05	"		1.04			3.50	30	
p,m-Xylene	15.5	0.05	"		15.1			2.58	30	
o-Xylene	3.42	0.05	"		3.30			3.79	30	
Surrogate: 1,3-Dichlorobenzene	*66.5*		*ug/L*	*50.0*		*133*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*56.1*		*"*	*50.0*		*112*	*80-120*			
Matrix Spike (1404018-MS1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Benzene	45.6		ug/L	50.0	ND	91.2	39-150			
Toluene	87.2		"	50.0	35.6	103	46-148			
Ethylbenzene	74.4		"	50.0	20.9	107	32-160			
p,m-Xylene	428		"	100	303	126	46-148			
o-Xylene	120		"	50.0	66.0	109	46-148			
Surrogate: 1,3-Dichlorobenzene	*69.0*		*"*	*50.0*		*138*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*59.8*		*"*	*50.0*		*120*	*80-120*			

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Analytical Laboratory

ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404018 - Purge and Trap EPA 5030A										
Blank (1404018-BLK1)				Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Duplicate (1404018-DUP1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Gasoline Range Organics (C6-C10)	139	4.99	mg/kg		137			1.35	30	
Matrix Spike (1404018-MS1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Gasoline Range Organics (C6-C10)	3.51		mg/L	0.450	2.75	169	75-125			SPK1

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ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404019 - DRO Extraction EPA 3550C										
Blank (1404019-BLK1)				Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Duplicate (1404019-DUP1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Diesel Range Organics (C10-C28)	236	30.0	mg/kg		380			46.7	30	D1
Matrix Spike (1404019-MS1)		**Source: P401062-01**		Prepared: 22-Jan-14 Analyzed: 27-Jan-14						
Diesel Range Organics (C10-C28)	453	30.0	mg/kg	49.9	380	147	75-125			SPK1

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ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404023 - 418 Freon Extraction										
Blank (1404023-BLK1)				Prepared & Analyzed: 23-Jan-14						
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1404023-DUP1)		**Source: P401051-01**		Prepared & Analyzed: 23-Jan-14						
Total Petroleum Hydrocarbons	74600	200	mg/kg		72800			2.48	30	
Matrix Spike (1404023-MS1)		**Source: P401051-01**		Prepared & Analyzed: 23-Jan-14						
Total Petroleum Hydrocarbons	21000		mg/L	500	18200	553	80-120			SPK1

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envirotech-inc.com
laboratory@envirotech-inc.com

ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1404021 - Anion Extraction EPA 300.0										
Blank (1404021-BLK1)				Prepared & Analyzed: 23-Jan-14						
Chloride	ND	9.94	mg/kg							
LCS (1404021-BS1)				Prepared & Analyzed: 23-Jan-14						
Chloride	489	9.87	mg/kg	494		99.1	90-110			
Matrix Spike (1404021-MS1)	**Source: P401059-01**			Prepared & Analyzed: 23-Jan-14						
Chloride	646	9.88	mg/kg	494	167	97.0	80-120			
Matrix Spike Dup (1404021-MSD1)	**Source: P401059-01**			Prepared & Analyzed: 23-Jan-14						
Chloride	640	9.92	mg/kg	496	167	95.4	80-120	0.879	20	

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ConocoPhillips	Project Name:	Ella Rose 1 #12	
PO Box 2200	Project Number:	96052-1706	**Reported:**
Bartlesville OK, 74005	Project Manager:	Kenny R Davis	28-Jan-14 13:52

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
D1	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds 30%.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CHAIN OF CUSTODY RECORD

16549

Client:	Project Name / Location:
ConocoPhillips	Ella Rose 1 #12
Email results to:	Sampler Name:
Kenny.R.Davis@conocophillips.com	Jared Chavez
Client Phone No.:	Client No.:
(505) 599-4045	96052-1706

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
								ANALYSIS / PARAMETERS														
Preset Closure	1/20/14	8:45am	P401065-01	1-4oz				X	X							X	X				X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	1/21/14	11:45am	Miriam Joe	1/23/14	7:35
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☑ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

11.9°C

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AM02513212
KGARCIA

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