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

Form C-144
Revised June 6, 2013

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

13926

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

39-06600

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

RECEIVED
By Rvillalobos at 8:57 am, Dec 30, 2015

Instructions: Please submit one application (Form C-144) per individual pit, 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: AXI APACHE K 5

Constituents Exceed Standards outline by 19.15.17.13 NMAC. Please submit a separate C-141 under 19.15.29 NMAC

API Number: 30-039-06600 OCD Permit Number: _____

U/L or Qtr/Qtr H (SENE) Section 10 Township 26N Range 5W County: Rio Arriba

Center of Proposed Design: Latitude 36.504753 °N Longitude -107.341793 °W NAD: ☐ 1927 ☒ 1983

Surface Owner: ☐ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

2.

☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC

Temporary: ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no

☐ Lined ☐ Unlined Liner type: Thickness ____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: ____bbl Dimensions: L___ x W__ x D_____

3.

☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC

Volume: 120 bbl Type of fluid: Produced Water

Tank Construction material: Metal

☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____

Liner type: Thickness _____mil ☐ HDPE ☐ PVC ☒ Other UNSPECIFIED

4.

☐ **Alternative Method:**

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.

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

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

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

☐ Alternate. Please specify _____

KZ

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

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

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

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

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

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of 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. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
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.

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 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

11.

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are 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 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

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

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, 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

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 Fluid Management Pit ☐ 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

14.
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 C of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
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 require justifications and/or demonstrations of equivalency. Please refer to 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	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

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

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure ~~Plan (only)~~ ☒ OCD Conditions (see attachment) See Front Page

OCD Representative Signature: Jonathan D. Kelly **Approval Date:** 6/23/2016

Title: Compliance Officer **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. 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:** 1/25/2011

20.
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.

21.
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 for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ 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 _____ °N _____ Longitude _____ °W _____ NAD: ☐ 1927 ☐ 1983

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: Crystal Walker Date: 12/28/15

e-mail address: crystal.walker@cop.com Telephone: (505) 326-9837

ConocoPhillips Company
San Juan Basin
Below Grade Tank Closure Report

Lease Name: AXI Apache K 5
API No.: 30-039-06600

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

General Plan:

1. 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.

2. 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
TPH	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 is missing.

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 used on federally regulated lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. A uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre- disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. COPC will repeat seeding or planting will be continued until successful vegetative growth occurs.

Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.

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

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

13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
    - Soil Backfilling and Cover Installation **(See Report)**
    - Re-vegetation application rates and seeding techniques **(See Report)**
    - Photo documentation of the site reclamation **(Included as an attachment)**
    - Confirmation Sampling Results **(Included as an attachment)**
    - Proof of closure notice **(Missing)**

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **ConocoPhillips Company**	Contact **Crystal Walker**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **AXI Apache K 5**	Facility Type: **Gas Well**

Surface Owner **TRIBAL**	Mineral Owner **TRIBAL**	API No.**30-039-06600**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	**10**	**26N**	**5W**	**1569**	**North**	**1190**	**East**	**Rio Arriba**

Latitude 36.504753 Longitude -107.341793

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **103 cu. yds**
Source of Release **Below Grade Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **1/25/2011**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Below Grade Tank Closure Activities

Describe Area Affected and Cleanup Action Taken.*
The below grade tanks ample results were above regulatory standards by USEPA method 418.1 for TPH confirming a release. The excavation was 20' X 20' X 7' and 103 cubic yards of soil was transported to a third party landfarm. Excavation and confirmation sampling occurred. Field results for TPH were before regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required. The results are attached for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Crystal Walker	OIL CONSERVATION DIVISION	
Printed Name: **Crystal Walker**	Approved by Environmental Specialist:	
Title: **Regulatory Coordinator**	Approval Date:	Expiration Date:
E-mail Address: crystal.walker@conocophillips.com	Conditions of Approval:	Attached ☐
Date: 12/28/15 Phone: (505) 326-9837		

* Attach Additional Sheets If Necessary

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BELOW GRADE TANK CLOSURE AND CONFIRMATION SAMPLING REPORT

LOCATION:
CONOCOPHILLIPS
AXI APACHE K #5
SECTION 10, TOWNSHIP 26 NORTH, RANGE 5 WEST
RIO ARRIBA COUNTY, NEW MEXICO

CONTRACTED BY:
CONOCOPHILLIPS
MS. KELSI HARRINGTON
3401 EAST 30TH STREET
FARMINGTON, NEW MEXICO 87401

PROJECT NUMBER 96052-1875
JANUARY 2011

5796 U.S. Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 envirotech-inc.com

envirotech

July 11, 2011

Project No. 96052-1875

Ms. Kelsi Harrington
ConocoPhillips
3401 East 30th Street
Farmington, New Mexico 87401

Phone: (505) 599-3403

RE: BELOW GRADE TANK CLOSURE AND CONFIRMATION SAMPLING REPORT FOR THE AXI APACHE K #5 WELL SITE, RIO ARRIBA COUNTY, NEW MEXICO

Dear Ms. Harrington,

Enclosed please find the *Below Grade Tank Closure and Confirmation Sampling Report* detailing activities conducted at the Axi Apache K #5 located in Section 10, Township 26 North, Range 5 West, Rio Arriba County, New Mexico.

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

Respectfully submitted,
ENVIROTECH, INC.

Barian Williamson
Senior Environmental Field Technician
bwilliamson@envirotech-inc.com

Enclosures: *Spill Assessment and Closure Report*

Cc: Client File 96052

CONOCOPHILLIPS
BGT CLOSURE AND CONFIRMATION SAMPLING REPORT
AXI APACHE K #5
SECTION 10, TOWNSHIP 26 NORTH, RANGE 5 WEST
RIO ARRIBA COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by ConocoPhillips to conduct below grade tank (BGT) closure and confirmation sampling activities at the Axi Apache K #5 well site located in Section 10, Township 26 North, Range 5 West, Rio Arriba County, New Mexico; see enclosed ***Figure 1, Vicinity Map***. Activities included sample collection and analysis, documentation and reporting.

ACTIVITIES PERFORMED

Envirotech, Inc. personnel arrived on site January 25, 2011, to perform BGT closure activities. A five (5)-point composite sample was collected from beneath the former BGT. The sample was screened in the field for total petroleum hydrocarbons (TPH) using USEPA Method 418.1, for organic vapors using a photoionization detector (PID), and chlorides. Additionally, the sample was placed into a four (4)-ounce glass jar, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015, for benzene and BTEX using USEPA Method 8021, and for total chlorides using USEPA Method 4500. The sample returned results below the regulatory standards for benzene and BTEX and for chlorides, but above the regulatory standard for TPH, confirming a release had occurred; see enclosed ***Appendix A, Analytical Results***.

Envirotech, Inc. personnel returned to the site January 28, 2011, to perform spill assessment activities for a condensate leak on an above ground storage tank (AST). Upon Envirotech personnel's arrival, a brief site assessment was conducted. Due to the location of the site on the Jicarilla Apache Indian Reservation, the cleanup standard was determined to be 100 ppm TPH and 100 ppm organic vapors. Eight (8) samples were collected for the spill assessment in the above ground storage tank footprint. One (1) five (5)-point composite sample was collected from the surface of the visual staining, one (1) sample was collected two (2) feet below ground surface (BGS) in the tank footprint where sandstone was encountered, one (1) sample was collected from each of the north, south, east and west sides of the tank footprint approximately 2.5 feet BGS. Two (2) samples were also collected from the southwest of the southern AST. The samples collected between the tank footprint and the final samples collected in the north, south, east, west and southwest directions were screened in five foot intervals with a PID at 2.5 feet deep. The results of the spill assessment concluded that the spill area was approximately 65 feet by 40 feet by 2.5 feet deep to remove the contaminated soil resulting from the AST condensate leak.

Prior to Envirotech's arrival on January 28, 2011, the below grade tank pit was excavated an additional one (1) foot to approximately 20 feet by 20 feet by 5 feet deep. One (1) five (5)-point composite sample was collected from the bottom of the BGT excavation, one (1) composite sample was collected from walls of the BGT excavation. The bottom composite sample returned results above the regulatory limits for TPH however the wall composite results were above the regulatory limits indicating the need for deeper excavation. The BGT area was excavated an additional two (2) feet for a total depth of seven (7) feet. One (1) bottom composite sample was collected and analyzed in the field for TPH. The sample returned results above the regulatory limits for TPH indicating the need for further excavation. The BGT pit was excavated an

additional 6" deep for a total of 7.5 feet deep. One composite sample was collected from the bottom and one (1) composite sample was collected from the walls of the BGT excavation. The samples were screened in the field for TPH using USEPA Method 418.1 and for organic vapors using a PID. The samples returned results above the regulatory limits for TPH and organic vapors indicating the need for further excavation. Additionally the bottom composite and the wall composite samples collected from the 7.5 foot bottom and walls of the BGT pit were placed into four (4)-ounce glass jars, capped headspace free, and transported on ice under chain of custody to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and BTEX using USEPA Method 8021. The samples returned results above the regulatory standards for TPH, and below the regulatory standard for benzene and BTEX. Envirotech, Inc. recommended further excavation of the BGT pit.

Prior to the return of Envirotech, Inc. personnel on February 14, 2011, the above ground storage tank area of release was excavated to an area of approximately 80' x 50' x 4' deep and the BGT pit was excavated an additional 2 feet to an area of 20 feet by 20 feet by 9.5 feet deep. Nine (9) samples were collected from the above ground storage tank excavation and two (2) samples were collected from the BGT excavation; see enclosed ***Field Notes*** for sample locations. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a PID. All samples returned results below the regulatory standard for organic vapors. The Section 1 East Wall and Section 3 East Wall samples returned results below the regulatory standard for TPH, while the remaining samples were above the regulatory standard for TPH. In addition, the nine (9) samples that failed in the field; see enclosed ***Analytical Summary***, were collected into four (4)-ounce glass jars, capped headspace free, and transported with ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015. All the samples returned results below the regulatory standard for TPH using USEPA Method 8015; see attached ***Analytical Results***. Therefore, Envirotech, Inc. recommends no further action in regards to this incident.

SUMMARY AND CONCLUSIONS

Below grade tank closure and above ground tank confirmation sampling activities were performed at the Axi Apache K #5 well site located in Section 10, Township 26 North, Range 5 West, Rio Arriba County, New Mexico. The soil from the excavated area was removed to the TNT soil remediation facility. Envirotech, Inc. recommends no further action in regards to this incident.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed below grade tank closure and confirmation sampling activities at the Axi Apache K #5 well site located in Section 10, Township 26 North, Range 5 West, Rio Arriba County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site of the incident.

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

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

Respectfully Submitted,

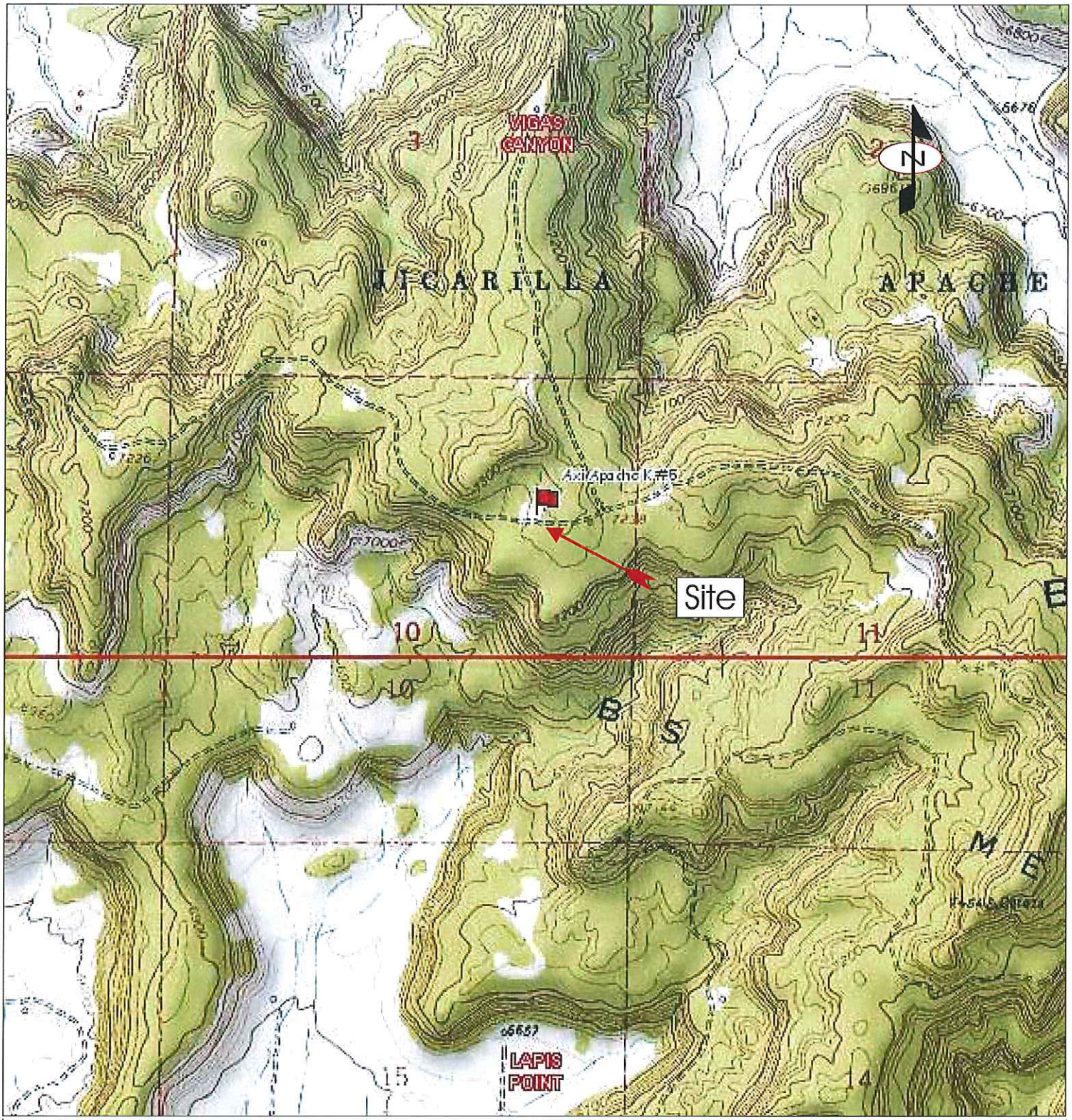
ENVIROTECH, INC.

Barian Williamson
Senior Environmental Field Technician
bwilliamson@envirotech-inc.com

Reviewed by:

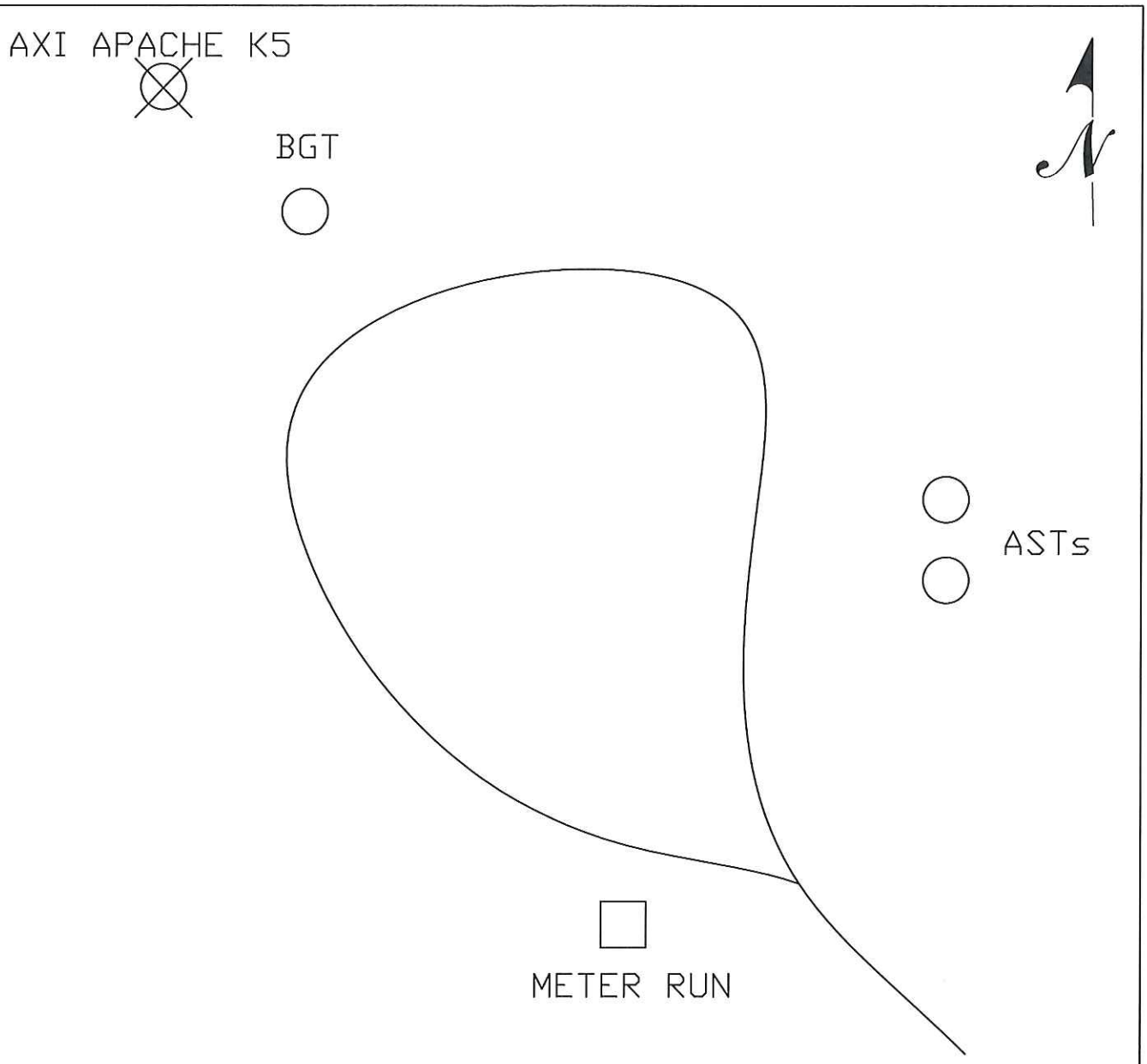
Greg Crabtree, PE
Environmental Manager
gcrabtree@envirotech-inc.com

FIGURES



Source: Jicarilla Apache Indian Reservation, NM 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

ConocoPhillips Axi Apache K #5 Well Site Section 10, Township 26N, Range 5W Rio Arriba County, New Mexico		envirotech 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure 1
PROJECT No 96052-1875	Date Drawn: 3/3/11	DRAWN BY: Torie Thompson	PROJECT MANAGER: Greg Crabtree



SITE MAP
CONOCOPHILLIPS
AXI APACHE K#5
SECTION 10 TOWNSHIP 26N RANGE 5W
RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT N096052-1875		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	BWW	2-3-11	BASE DRWN		

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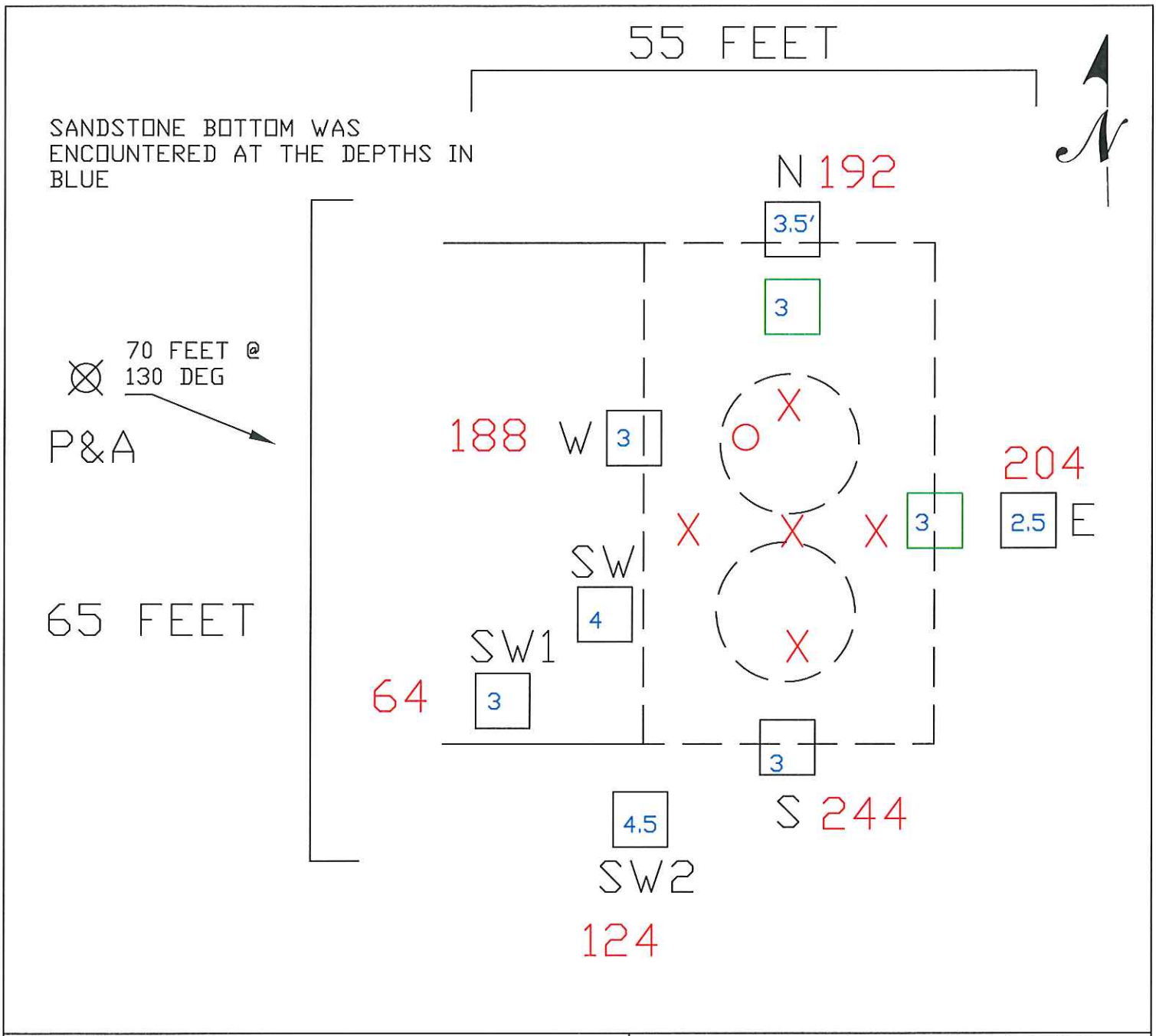

124 - TPH PPM

SW2 - SAMPLE ID

2.5 - DEPTH OF HOLE IN FEET

○ SAMPLE @ 2.5 FEET

X - 5 POINT SURFACE COMPOSITE

□ HIGH OV SAMPLES

□ NO OV SAMPLES

SITE MAP–AST SPILL ASSESS.
CONOCOPHILLIPS
AXI APACHE K#5
SECTION 10 TOWNSHIP 26N RANGE 5W
RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 3	REV
PROJECT N096052–1875		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	BWW	1–31–11	BASE DRWN		

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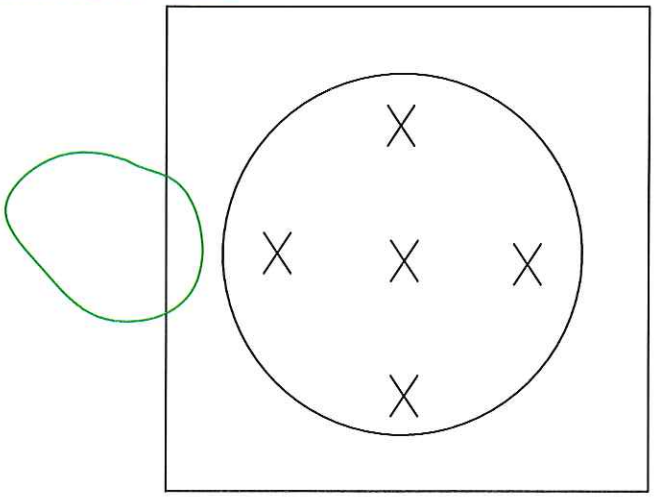
TOP

SANDSTONE FACE



WALL COMPOSITES

5 FEET BGS 144 PPM; TPH/ 0.0 PPM OV

7.5 FEET BGS; 867 PPM OV

BOTTOM COMPOSITES

3052 PPM TPH; 1250 PPM OV

2728 PPM TPH; 1264 PPM OV

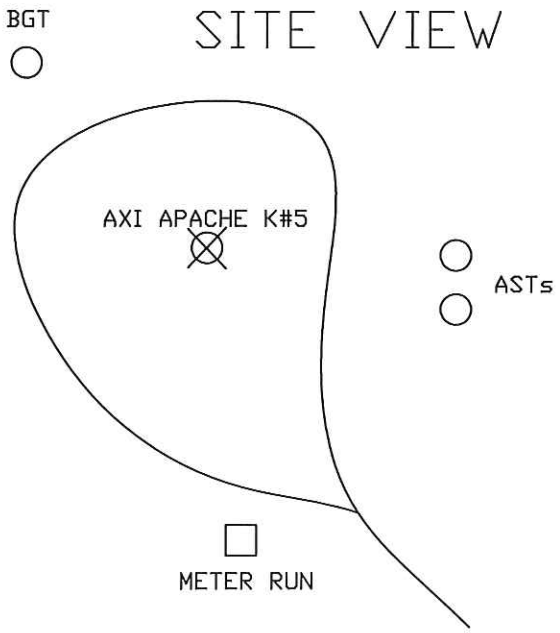
700 PPM TPH; 830 PPM OV

2192 PPM TPH; 1071 PPM OV

PROFILE

BENEATH BGT = 4 FEET BELOW SURFACE
5 FEET BELOW SURFACE
7 FEET BELOW SURFACE
7.5 FEET BELOW SURFACE

SITE VIEW



SITE MAP–BGT EXCAVATION
CONOCOPHILLIPS
AXI APACHE K#5
SECTION 10 TOWNSHIP 26N RANGE 5W
RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 4	REV
PROJECT NO96052–1875		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	BWW	2–3–11	BASE DRWN		

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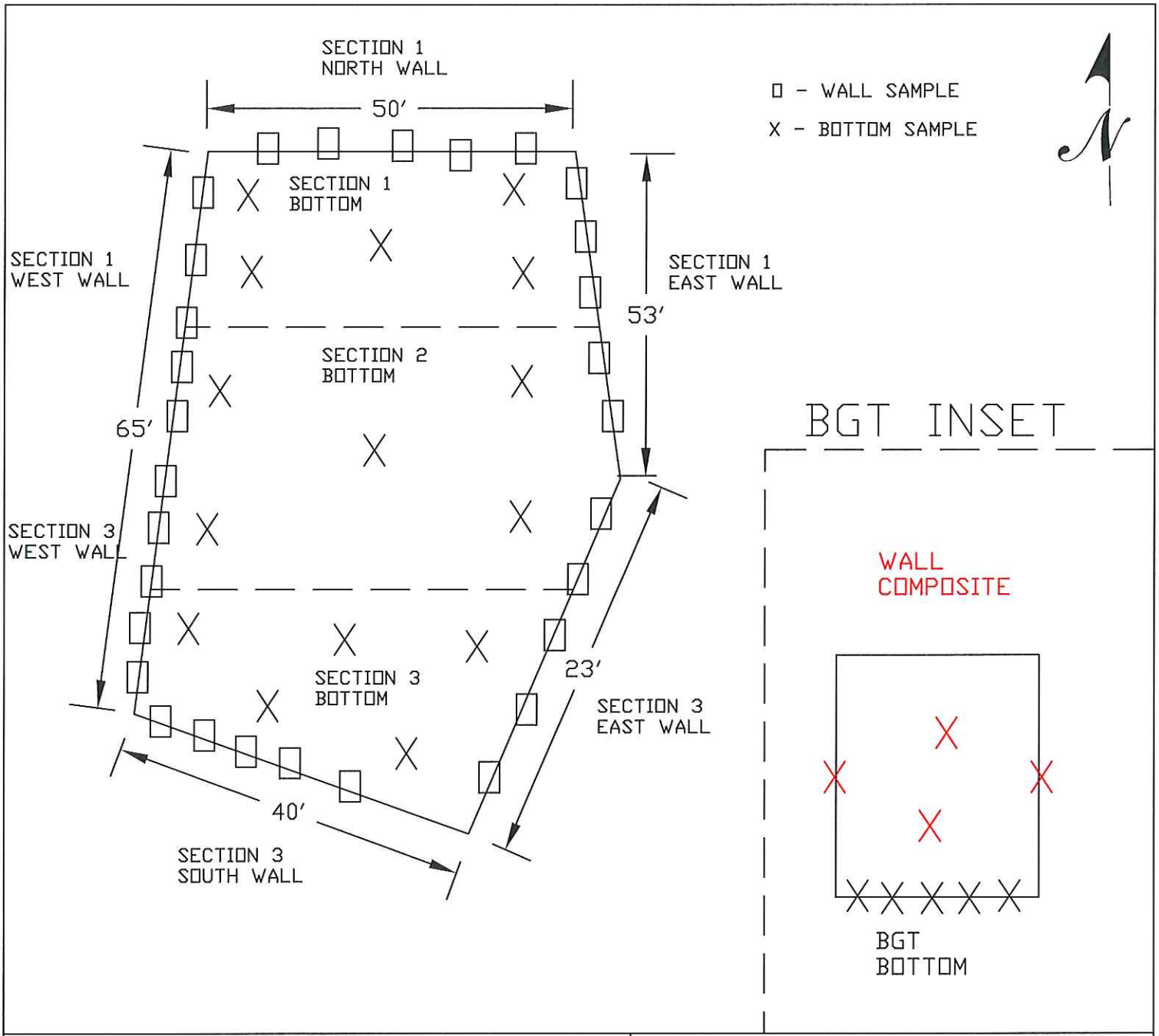

— — — SECTIONS

——— WALLS

SITE MAP–FINAL EXCAVATION
CONOCOPHILLIPS
AXI APACHE K#5
SECTION 10 TOWNSHIP 26N RANGE 5W
RIO ARRIBA COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 5	REV
PROJECT NO96052–1875		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	BWW	2–16–11	BASE DRWN		

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TABLES

Table 1, Summary of Analytical Results
ConocoPhillips
Axi Apache K #5
Below Grade Tank Closure and Confirmation Samplling Report
Project Number 96052-1875

Date	Sample Description	Sample Number	Organic Vapors (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	Method 4500 Chlorides (ppm)	USEPA Method 8021	
							Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	100	100	NA	10	50
1/25/2011	5 Point Composite	1	**1250**	**3050**	**324**	35	ND	2.83
1/28/2011	5 Point Composite Surface	1	**349**	**3980**	NS	NS	NS	NS
1/28/2011	2' Deep Under AST	2	ND	100	NS	NS	NS	NS
1/28/2011	East 2.5' Deep	3	ND	**204**	NS	NS	NS	NS
1/28/2011	South 2.5' Deep	4	ND	**244**	NS	NS	NS	NS
1/28/2011	West 2.5' Deep	5	ND	**188**	NS	NS	NS	NS
1/28/2011	North 2.5' Deep	6	ND	**192**	NS	NS	NS	NS
1/28/2011	Southwest 1 2.5' Deep	7	ND	64	NS	NS	NS	NS
1/28/2011	Southwest 2 2.5' Deep	8	ND	**124**	NS	NS	NS	NS
1/28/2011	BGT Bottom Composite	9	**1260**	**2730**	NS	NS	NS	NS
1/28/2011	BGT Wall Composite	10	ND	**144**	NS	NS	NS	NS
1/28/2011	BGT Bottom 2' Deeper	11	**830**	**700**	NS	NS	NS	NS
1/28/2011	BGT Bottom @ 7.5'	12	**1070**	**2190**	NS	NS	NS	NS
1/28/2011	BGT Walls @ 7.5'	13	**867**	NS	NS	NS	NS	NS
2/14/2011	Section 1 Bottom	1	0.7	**276**	13.1	NS	NS	NS
2/14/2011	Section 2 Bottom	2	13.5	**508**	45.4	NS	NS	NS
2/14/2011	Section 1 West Wall	3	9.4	**448**	16.1	NS	NS	NS
2/14/2011	Section 1 North Wall	4	1.4	**204**	ND	NS	NS	NS
2/14/2011	Section 1 East Wall	5	30	88	NS	NS	NS	NS
2/14/2011	Section 3 Bottom	6	17.2	**572**	2.6	NS	NS	NS
2/14/2011	Section 3 South Wall	7	17.0	**192**	5.5	NS	NS	NS
2/14/2011	Section 3 East Wall	8	1.6	88	NS	NS	NS	NS
2/14/2011	Section 3 West Wall	9	19.4	**464**	4.9	NS	NS	NS
2/14/2011	BGT Walls	10	0.9	**160**	ND	NS	NS	NS
2/14/2011	BGT Bottom	11	23.3	**368**	ND	NS	NS	NS

*Values in **BOLD** above regulatory limits

*NS - Parameter not sampled *ND - Parameter not detected

APPENDIX A

Analytical Results

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	1	Date Reported:	4/27/2011
Sample ID:	5 Pt. Comp	Date Sampled:	1/25/2011
Sample Matrix:	Soil	Date Analyzed:	1/25/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**3,050**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Scott Gonzales
Printed

Review

Robyn Jones
Printed

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 25-Jan-11

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	212
	500	
	1000	

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

Analyst

4/27/2011
Date

Scott Gonzales
Print Name

Review

4/27/2011
Date

Robyn Jones
Print Name

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Field Chloride

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	1	Date Reported:	4/27/2011
Sample ID:	BGT Composite	Date Sampled:	1/25/2011
Sample Matrix:	Soil	Date Analyzed:	1/25/2011
Preservative:	Cool	Analysis Needed:	Chloride
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Field Chloride	**40**	**33.0**

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: **Axi Apache K #5**

Analyst

Scott Gonzales
Printed

Review

Robyn Jones
Printed

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Analytical Laboratory

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	5pt. Comp BGT	Date Reported:	01-26-11
Laboratory Number:	57085	Date Sampled:	01-25-11
Chain of Custody No:	11048	Date Received:	01-25-11
Sample Matrix:	Soil	Date Extracted:	01-25-11
Preservative:	Cool	Date Analyzed:	01-26-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**191**	**0.2**
Diesel Range (C10 - C28)	**132**	**0.1**
Total Petroleum Hydrocarbons	**324**	

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: **Axi Apache K #5**

Analyst

Review

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Analytical Laboratory

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-26-11 QA/QC	Date Reported:	01-26-11
Laboratory Number:	57084	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-26-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-26-11	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	01-26-11	9.9960E+002	1.0000E+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**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**23.7**	**23.3**	**1.7%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**256**	**103%**	**75 - 125%**
Diesel Range C10 - C28	**23.7**	**250**	**291**	**106%**	**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 57084-57085, 57088-57089, 57092**

Analyst

Review

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Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	5pt. Comp BGT	Date Reported:	01-26-11
Laboratory Number:	57085	Date Sampled:	01-25-11
Chain of Custody:	11048	Date Received:	01-25-11
Sample Matrix:	Soil	Date Analyzed:	01-26-11
Preservative:	Cool	Date Extracted:	01-25-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**0.9**
Toluene	**320**	**1.0**
Ethylbenzene	**131**	**1.0**
p,m-Xylene	**1,010**	**1.2**
o-Xylene	**1,370**	**0.9**
Total BTEX	**2,830**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**105 %**
	1,4-difluorobenzene	**109 %**
	Bromochlorobenzene	**111 %**

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: **Axi Apache K #5**

Analyst

Review

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Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0126BBLK QA/QC	Date Reported:	01-26-11
Laboratory Number:	57084	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-26-11
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	8.4201E+003	8.4370E+003	0.2%	ND	0.1
Toluene	2.7544E+005	2.7599E+005	0.2%	ND	0.1
Ethylbenzene	3.2473E+005	3.2538E+005	0.2%	ND	0.1
p,m-Xylene	3.0645E+005	3.0707E+005	0.2%	ND	0.1
o-Xylene	7.1670E+005	7.1814E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	10.2	9.2	9.8%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	4.8	4.7	2.1%	0 - 30%	1.2
o-Xylene	3.1	3.0	3.2%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	500	545	109%	39 - 150
Toluene	10.2	500	513	101%	46 - 148
Ethylbenzene	ND	500	518	104%	32 - 160
p,m-Xylene	4.8	1000	1,120	112%	46 - 148
o-Xylene	3.1	500	549	109%	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

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 Photolonization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 57084-57086, 57088-57089, 57092**

Analyst

Review

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Chloride

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	5 Pt. Comp BGT	Date Reported:	01-26-11
Lab ID#:	57085	Date Sampled:	01-25-11
Sample Matrix:	Soil	Date Received:	01-25-11
Preservative:	Cool	Date Analyzed:	01-26-11
Condition:	Intact	Chain of Custody:	11048

Parameter	Concentration (mg/Kg)
Total Chloride	**35**

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., 199

Comments: **Axi apache K #5**

Analyst

Review

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CHAIN OF CUSTODY RECORD

11048 Rush

Client: ConocoPhillips
Project Name / Location: Axi Apache K #5
Client Address:
Sampler Name: Scott G.
Client Phone No.:
Client No.: 96052-1875

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative ICE	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
5pt. Comp. BGT	1-25-11	10:30	57085	Soil (circled) Sludge Solid Aqueous	1-4oz			✓	✓	✓								✓				Y	Y
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
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				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10-25-11	14:16	Trenton Kaoll	10/25/11	14:16
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

RUSH

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	1	Date Reported:	4/27/2011
Sample ID:	5 Pt. Comp. Surface	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**3,980**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Review

Robyn Jones
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	2	Date Reported:	4/27/2011
Sample ID:	2' deep under AST	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**100**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	3	Date Reported:	4/27/2011
Sample ID:	East 2.5' deep	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**204**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	4	Date Reported:	4/27/2011
Sample ID:	South	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**244**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	5	Date Reported:	4/27/2011
Sample ID:	West	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**188**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	6	Date Reported:	4/27/2011
Sample ID:	North	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**192**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Robyn Jones
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	7	Date Reported:	4/27/2011
Sample ID:	SW 1	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**64**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	8	Date Reported:	4/27/2011
Sample ID:	SW 2	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**124**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	9	Date Reported:	4/27/2011
Sample ID:	Bottom Composite	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,730**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Review

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EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	10	Date Reported:	4/27/2011
Sample ID:	Wall Composite	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**144**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Review

Robyn Jones
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	11	Date Reported:	4/27/2011
Sample ID:	Bottom 2' deeper	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**700**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Review

Robyn Jones
Printed

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1875
Sample No.:	12	Date Reported:	4/27/2011
Sample ID:	Bottom Composite 7.5' deep	Date Sampled:	1/28/2011
Sample Matrix:	Soil	Date Analyzed:	1/28/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**2,190**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Review

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 28-Jan-11

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	201
	500	
	1000	

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

Analyst

4/27/2011
Date

Crystal Delgai
Print Name

Review

4/27/2011
Date

Robyn Jones
Print Name

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Bottom	Date Reported:	01-31-11
Laboratory Number:	57122	Date Sampled:	01-28-11
Chain of Custody No:	11079	Date Received:	01-28-11
Sample Matrix:	Soil	Date Extracted:	01-28-11
Preservative:	Cool	Date Analyzed:	01-31-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,590**	**0.2**
Diesel Range (C10 - C28)	**206**	**0.1**
Total Petroleum Hydrocarbons	**1,800**	

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: **Axi Apache K #5/BGT**

Analyst

Review

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Wall	Date Reported:	01-31-11
Laboratory Number:	57123	Date Sampled:	01-28-11
Chain of Custody No:	11079	Date Received:	01-28-11
Sample Matrix:	Soil	Date Extracted:	01-28-11
Preservative:	Cool	Date Analyzed:	01-31-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**241**	**0.2**
Diesel Range (C10 - C28)	**103**	**0.1**
Total Petroleum Hydrocarbons	**344**	

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: **Axi Apache K #5/BGT**

Analyst

Review

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-31-11 QA/QC	Date Reported:	01-31-11
Laboratory Number:	57116	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-31-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-31-11	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	01-31-11	9.9960E+002	1.0000E+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**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**6,240**	**6,470**	**3.7%**	**0 - 30%**
Diesel Range C10 - C28	**451**	**441**	**2.2%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**6,240**	**250**	**6,970**	**107%**	**75 - 125%**
Diesel Range C10 - C28	**451**	**250**	**715**	**102%**	**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 57116, 57120-57123**

Analyst

Review

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Bottom	Date Reported:	01-31-11
Laboratory Number:	57122	Date Sampled:	01-28-11
Chain of Custody:	11079	Date Received:	01-28-11
Sample Matrix:	Soil	Date Analyzed:	01-31-11
Preservative:	Cool	Date Extracted:	01-28-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**0.9**
Toluene	**901**	**1.0**
Ethylbenzene	**1,330**	**1.0**
p,m-Xylene	**23,600**	**1.2**
o-Xylene	**5,330**	**0.9**
Total BTEX	**31,200**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**111 %**
	1,4-difluorobenzene	**109 %**
	Bromochlorobenzene	**108 %**

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: **Axi Apache K #5/BGT**

Analyst

Review

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Wall	Date Reported:	01-31-11
Laboratory Number:	57123	Date Sampled:	01-28-11
Chain of Custody:	11079	Date Received:	01-28-11
Sample Matrix:	Soil	Date Analyzed:	01-31-11
Preservative:	Cool	Date Extracted:	01-28-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**0.9**
Toluene	**206**	**1.0**
Ethylbenzene	**139**	**1.0**
p,m-Xylene	**2,790**	**1.2**
o-Xylene	**766**	**0.9**
Total BTEX	**3,900**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**94.9 %**
	1,4-difluorobenzene	**90.4 %**
	Bromochlorobenzene	**101 %**

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: **Axi Apache K #5/BGT**

Analyst

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0131BBLK QA/QC	Date Reported:	01-31-11
Laboratory Number:	57116	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-31-11
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.5675E+005	1.5706E+005	0.2%	ND	0.1
Toluene	1.7457E+005	1.7492E+005	0.2%	ND	0.1
Ethylbenzene	1.5361E+005	1.5392E+005	0.2%	ND	0.1
p,m-Xylene	3.5525E+005	3.5596E+005	0.2%	ND	0.1
o-Xylene	1.4429E+005	1.4458E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	2,310	2,250	2.6%	0 - 30%	0.9
Toluene	14,200	13,900	2.1%	0 - 30%	1.0
Ethylbenzene	5,280	5,380	1.9%	0 - 30%	1.0
p,m-Xylene	82,100	82,000	0.1%	0 - 30%	1.2
o-Xylene	15,200	15,800	3.9%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	2,310	500	2,800	100%	39 - 150
Toluene	14,200	500	14,700	100%	46 - 148
Ethylbenzene	5,280	500	5,800	100%	32 - 160
p,m-Xylene	82,100	1000	82,800	99.6%	46 - 148
o-Xylene	15,200	500	15,700	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

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 57116, 57120-57123

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CHAIN OF CUSTODY RECORD

11079

Client: COPC	Project Name / Location: Axi Apache K#5 / BGT	ANALYSIS / PARAMETERS
Client Address:	Sampler Name: BB W / C Delgai	
Client Phone No.:	Client No.: 96052-1875	

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Bottom	1-28-11	14:00	57122	(Soil) Solid Sludge Aqueous	1-4oz			/	/	/												Y	Y
Wall	1-28-11	14:00	57123	(Soil) Solid Sludge Aqueous	1-4oz			/	/	/												Y	Y
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
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				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	1-28-11	17:07	[signature]	1/28/11	17:07
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 14-Feb-11

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	197
	500	
	1000	

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

Analyst

4/27/2011
Date

Crystal Delgai
Print Name

Review

4/27/2011
Date

Robyn Jones
Print Name

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	1	Date Reported:	4/27/2011
Sample ID:	Section 1 Bottom	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**276**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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Robyn Jones
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	2	Date Reported:	4/27/2011
Sample ID:	Section 2 Bottom	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**508**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	3	Date Reported:	4/27/2011
Sample ID:	Section 1 West Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**448**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	4	Date Reported:	4/27/2011
Sample ID:	Section 1 North Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**204**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	5	Date Reported:	4/27/2011
Sample ID:	Section 1 East Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**88**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Crystal Delgai
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EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	6	Date Reported:	4/27/2011
Sample ID:	Section 3 Bottom	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**572**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	7	Date Reported:	4/27/2011
Sample ID:	Section 3 South Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**192**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	8	Date Reported:	4/27/2011
Sample ID:	Section 3 East Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**88**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocPhillips	Project #:	96052-1875
Sample No.:	9	Date Reported:	4/27/2011
Sample ID:	Section 3 West Wall	Date Sampled:	2/14/2011
Sample Matrix:	Soil	Date Analyzed:	2/14/2011
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**464**	**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: **Axi Apache K #5**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 1 Bottom	Date Reported:	02-16-11
Laboratory Number:	57202	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
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)	**13.1**	**0.1**
Total Petroleum Hydrocarbons	**13.1**	

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: **Axi Apache K #5**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 1 West Wall	Date Reported:	02-16-11
Laboratory Number:	57203	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**4.9**	**0.2**
Diesel Range (C10 - C28)	**11.2**	**0.1**
Total Petroleum Hydrocarbons	**16.1**	

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: **Axi Apache K #5**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 2 Bottom	Date Reported:	02-16-11
Laboratory Number:	57204	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**18.2**	**0.2**
Diesel Range (C10 - C28)	**27.2**	**0.1**
Total Petroleum Hydrocarbons	**45.4**	

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: **Axi Apache K #5**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 3 South Wall	Date Reported:	02-16-11
Laboratory Number:	57205	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
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)	**5.5**	**0.1**
Total Petroleum Hydrocarbons	**5.5**	

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: **Axi Apache K #5**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	BGT Bottom Composite	Date Reported:	02-16-11
Laboratory Number:	57206	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
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**
Total Petroleum Hydrocarbons	**ND**	

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: **Axi Apache K #5**

Analyst

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 3 Bottom	Date Reported:	02-16-11
Laboratory Number:	57207	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.3**	**0.2**
Diesel Range (C10 - C28)	**2.3**	**0.1**
Total Petroleum Hydrocarbons	**2.6**	

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: **Axi Apache K #5**

Analyst

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 1 North Wall	Date Reported:	02-16-11
Laboratory Number:	57208	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
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**
Total Petroleum Hydrocarbons	**ND**	

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: **Axi Apache K #5**

Analyst

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	Section 3 West Wall	Date Reported:	02-16-11
Laboratory Number:	57209	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**2.0**	**0.2**
Diesel Range (C10 - C28)	**2.9**	**0.1**
Total Petroleum Hydrocarbons	**4.9**	

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: **Axi Apache K #5**

Analyst

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-1875
Sample ID:	BGT Wall Composite	Date Reported:	02-16-11
Laboratory Number:	57210	Date Sampled:	02-14-11
Chain of Custody No:	11137	Date Received:	02-15-11
Sample Matrix:	Soil	Date Extracted:	02-15-11
Preservative:	Cool	Date Analyzed:	02-15-11
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**
Total Petroleum Hydrocarbons	**ND**	

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: **Axi Apache K #5**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

envirotech
Analytical Laboratory

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-15-11 QA/QC	Date Reported:	02-15-11
Laboratory Number:	57194	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	02-15-11	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	02-15-11	9.9960E+002	1.0000E+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**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**114**	**116**	**1.8%**	**0 - 30%**
Diesel Range C10 - C28	**1,360**	**1,520**	**11.4%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**114**	**250**	**363**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**1,360**	**250**	**1,680**	**104%**	**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 57192-57196, 57202-57210**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505)632-0615 Fr (800)362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

CHAIN OF CUSTODY RECORD RUSH 11137

Client:	Project Name / Location:
Conocophillips	Axi Apache #5
Client Address:	Sampler Name: Barry Williamson
Client Phone No.:	Client No.: 96052-1875

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative: $HgCl_2$	Preservative: HCl	Preservative: Ice	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Section 1 Bottom	2/14/11	12:15	57202	Soil Solid / Sludge Aqueous	1-4oz			X	X													Y	Y
Section 1 west wall	2/14/11	12:26	57203	Soil Solid / Sludge Aqueous	↓			X	X														
Section 2 Bottom	↓	12:18	57204	Soil Solid / Sludge Aqueous	↓			X	X														
Section 3 South wall	↓	12:50	57205	Soil Solid / Sludge Aqueous	↓			X	X														
BGT Bottom Composite	↓	13:43	57206	Soil Solid / Sludge Aqueous	↓			X	X														
Section 3 Bottom	↓	12:47	57207	Soil Solid / Sludge Aqueous	↓			X	X														
Section 1 North wall	↓	12:31	57208	Soil Solid / Sludge Aqueous	↓			X	X														
Section 3 West wall	↓	13:00	57209	Soil Solid / Sludge Aqueous	↓			X	X														
BGT Wall Composite	↓	13:41	57210	Soil Solid / Sludge Aqueous	↓			X	X														
				Soil Solid / Sludge Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	2/15/11	7:15	TRENTON KNOX	2/15/11	7:15
Relinquished by: (Signature)	2/15/11	7:15	Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

RUSH

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APPENDIX B

Field Notes

PAGE NO: 1 OF 2

DATE STARTED: 1-25-11

DATE FINISHED: 1-25-11

ENVIROTECH INC

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64 - 3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

ENVIRONMENTAL SPECIALIST: SG

LAT:

LONG:

FIELD REPORT: BGT / PIT CLOSURE VERIFICATION

LOCATION: NAME: Axi Apache K WELL #: 5 TEMP PIT: PERMANENT PIT: BGT: X

LEGAL ADD: UNIT: SEC: 10 TWP: 26N RNG: 5W PM: NMPM

QTR/FOOTAGE: CNTY: Rio Arriba ST: NM

EXCAVATION APPROX: FT. X FT. X FT. DEEP CUBIC YARDAGE:

DISPOSAL FACILITY: REMEDIATION METHOD:

LAND OWNER: API: BGT / PIT VOLUME: —

CONSTRUCTION MATERIAL: Steel DOUBLE-WALLED, WITH LEAK DETECTION: No

LOCATION APPROXIMATELY: 48 FT. 315° FROM WELLHEAD

DEPTH TO GROUNDWATER:

___ TEMPORARY PIT - GROUNDWATER 50-100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 500 mg/kg

___ TEMPORARY PIT - GROUNDWATER ≥100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 1000 mg/kg

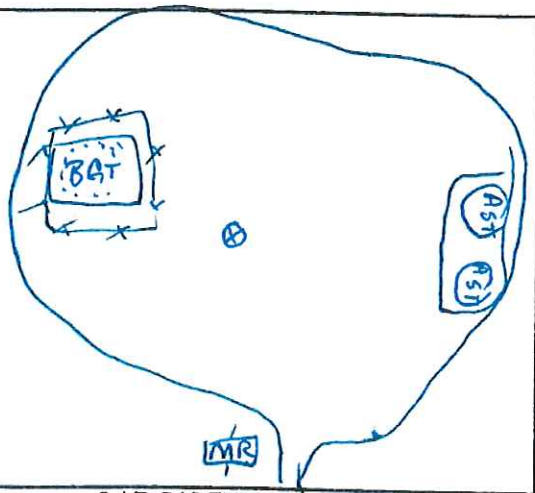
X PERMANENT PIT OR BGT

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 mg/kg

FIELD 418.1 ANALYSIS

TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g	mL FREON	DILUTION	READING	CALC. (mg/kg)
10:00	200 STD		-	-	-	212	
10:30	Spl Comp	1	5	20	4	743	3052
		2					
		3					
		4					
		5					
		6					

PERIMETER



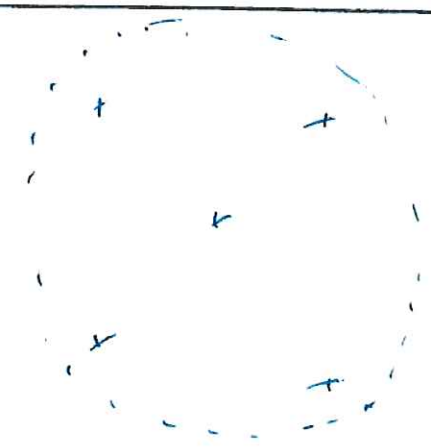
FIELD CHLORIDES RESULTS

SAMPLE ID	READING	CALC. (mg/kg)
Spl Comp	1.4	40

PID RESULTS

SAMPLE ID	RESULTS (mg/kg)
Spl. Comp	1250

PROFILE



LAB SAMPLES

SAMPLE ID	ANALYSIS	RESULTS
	BENZENE	
	BTEX	
	GRO & DRO	
	CHLORIDES	

NOTES:

36.50448202 site GPS BGT GPS - 34.504783° P&A well
-107.34112 3 - 107.341860°

site located on Jicarilla land, closure 100 ppm TPH 100 ppm OV

WORKORDER # WHO ORDERED

ent: Conoco Phillips

envirotech
(505) 632-0615 (800) 362-1879
5700 U.S. Hwy 64, Farmington, NM 87401

Location No:

C.O.C. No:

ELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: 1 OF 1

DATE STARTED: 1-28-11

DATE FINISHED: 1-28-11

ENVIRONMENTAL SPECIALIST: BWW/CD

CATION: NAME: Apache K#5 WELL #: K#5

AD/UNIT: SEC: 10 TWP: 26N RNG: 5W PM: CNTY: RA ST: NM

R/FOOTAGE: CONTRACTOR:

CAVATION APPROX: N/A FT. X FT. X FT. DEEP CUBIC YARDAGE:

SPOSAL FACILITY: REMEDIATION METHOD:

ND USE: LEASE: LAND OWNER:

USE OF RELEASE: Tank leak MATERIAL RELEASED: Condensate

LL LOCATED APPROXIMATELY: 70 FT. 130° FROM

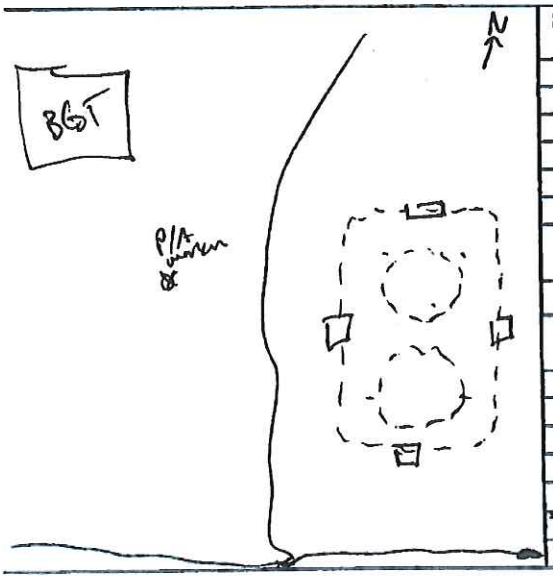
PTH TO GROUNDWATER: NEAREST WATER SOURCE: NEAREST SURFACE WATER:

OCD RANKING SCORE: NMOCD TPH CLOSURE STD: PPM

IL AND EXCAVATION DESCRIPTION: tank had holes in it

SAMPLE DESCRIPITION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
200 STD	10:38	—	—	—	—	—	201	
Spt Comp Surface	10:56	(1)		5	20	4	995	3980
2' Deep under Ast	10:58	(2)		5	20	4	25	100
East 2.5' Deep	11:20	(3)		5	20	4	51	204
South	11:35	(4)		5	20	4	61	244
West	11:38	(5)		5	20	4	47	188
NORTH	11:51	(6)		5	20	4	48	192

SPILL PERIMETER



OVM RESULTS

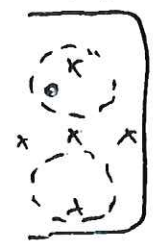
SAMPLE ID	FIELD HEADSPACE PID (ppm)
(1)	349
(2)	0.0
(3)	0.0
(4)	0.0
(5)	0.0
(6)	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

SPILL PROFILE

x - Spt Surface/0 - 2' Deep



RAVEL NOTES: CALLED OUT: ONSITE:

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Method 418.1 Analysis Log

Total Petroleum Hydrocarbons

Date 1-28-11 Analyst BWW / CD

Location Ax; Apache KH 5 Instrument INFRACAL # 4

Job No. 96052-1875

Sample No.	Sample Description	Weight (g)	mL. Freon	Dilution	Reading	Calc. TPH (ppm)	OVM (ppm)
7	SW 1	5	20	4	16	64	0.0
8	SW 2	5	20	4	31	124	0.0
9	Bottom Composite	5	20	4	682	2728	1264
10	Wall Composite	5	20	4	36	144	0.0
11	Bottom 2' Deeper	5	20	4	175	700	830
12	Bottom @ 7.5'	5	20	4	548	2192	1071
13	Walls @ 7.5'	5	20	4			867

Infrared Spectrophotometer Calibration

New Freon _____

Date Standards Prepared _____

Standard Concentration (ppm)

100 _____ 500 _____

200 _____ 1000 _____

I-Cal RF: _____ C-Cal RF: _____

RSD: _____ % Difference: _____

QA/QC Acceptance Criteria: I-Cal RSD +/- 20% C-Cal Difference +/- 10%

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

AXI APACHE K 5