

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

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

Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

4478

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

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

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

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

1.	Operator: Williams Production Co, LLC OGRID #: 120782 Address: PO Box 640/721 So. Main, Aztec, NM 87410 Facility or well name: Rosa Unit #147A API Number: 30-039-25796 OCD Permit Number: U/L or Qtr/Qtr H Section 33 Township 31N Range 05W County: Rio Arriba Center of Proposed Design: Latitude 36.85831 Longitude 107.36289 NAD: <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983 Surface Owner: <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment
2.	<input checked="" type="checkbox"/> <b>Pit:</b> Subsection F or G of 19.15.17.11 NMAC Temporary: <input type="checkbox"/> Drilling <input type="checkbox"/> Workover <input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A <input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other <input type="checkbox"/> String-Reinforced Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other Volume: bbl Dimensions: L x W x D
3.	<input type="checkbox"/> <b>Closed-loop System:</b> Subsection H of 19.15.17.11 NMAC Type of Operation: <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) <input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other <input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other
4.	<input checked="" type="checkbox"/> <b>Below-grade tank:</b> Subsection I of 19.15.17.11 NMAC Volume: 120 bbl Type of fluid: Produced Water Tank Construction material: FIBERGLASS TANK w/BANDED 20-mil HDPE SECONDARY LINER <input checked="" type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off <input type="checkbox"/> Visible sidewalls and liner <input type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other Liner type: Thickness 40 mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input checked="" type="checkbox"/> Other LLDPE
5.	<input type="checkbox"/> <b>Alternative Method:</b> Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.



6. **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 \_\_\_\_\_

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

- ☐ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8. **Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.3.103 NMAC

9. **Administrative Approvals and Exceptions:**

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

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

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

10. **Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

**Instructions:** The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No
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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

11.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 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: \_\_\_\_\_

12.

**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  
☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_  
☐ Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

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

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Climatological Factors Assessment  
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Quality Control/Quality Assurance Construction and Installation Plan  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan  
☐ Emergency Response Plan  
☐ Oil Field Waste Stream Characterization  
☐ Monitoring and Inspection Plan  
☐ Erosion Control Plan  
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

**Proposed Closure:** 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System  
☐ Alternative  
 Proposed Closure Method: ☒ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

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

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

**Instructions:** Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

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

☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

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

17.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ 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 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

18.

**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 F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

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

19.

**Operator Application Certification:**

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

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

20.

**OCD Approval:** ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_ OCD Permit Number: \_\_\_\_\_

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☒ Closure Completion Date: September 8<sup>th</sup> 2008

22.

**Closure Method:**

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

☐ If different from approved plan, please explain.

23.

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

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

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

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

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

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

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

24.

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

☒ Proof of Closure Notice (surface owner and division)

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

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

☒ Confirmation Sampling Analytical Results (if applicable)

☐ Waste Material Sampling Analytical Results (required for on-site closure)

☒ Disposal Facility Name and Permit Number **S.J. Regional Landfill, NMED Permit SWM-052426**

☒ Soil Backfilling and Cover Installation

☒ Re-vegetation Application Rates and Seeding Technique

☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.85831 Longitude 107.36289 NAD: ☐ 1927 ☒ 1983

25.

**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): Michael K. Lane Title: SR EH & S SPECIALIST

Signature:  Date: 8/4/09

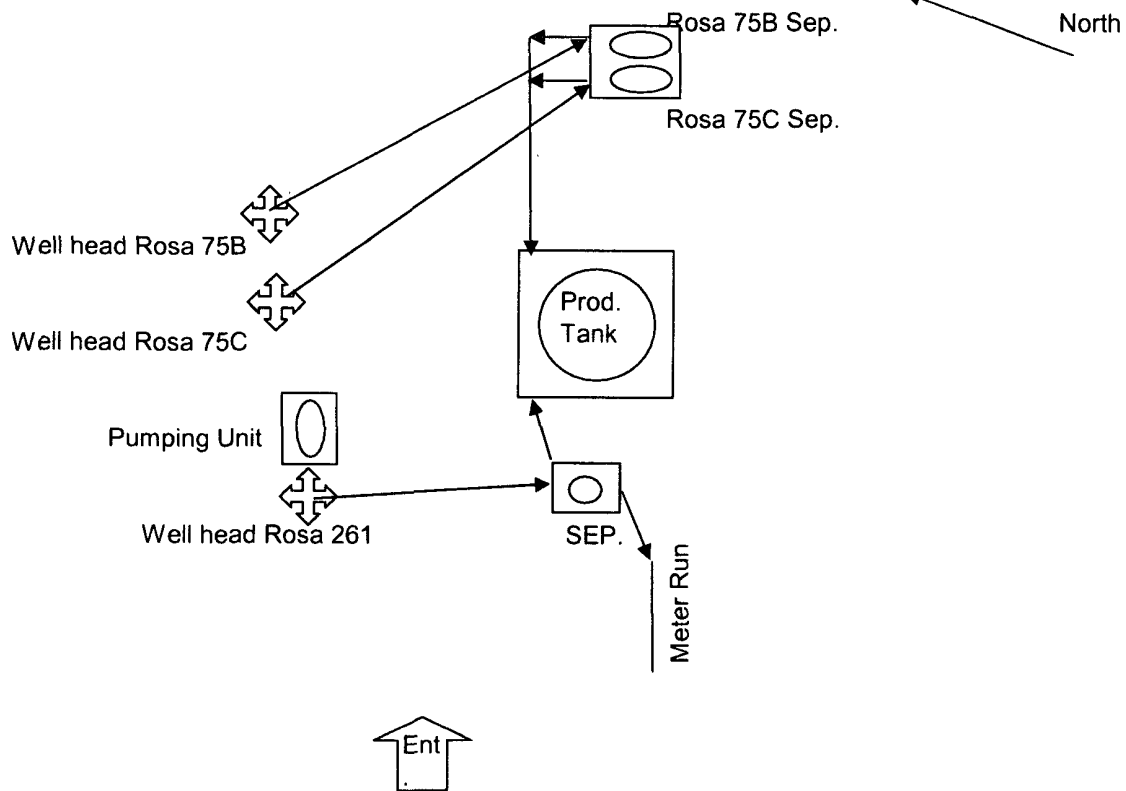
e-mail address: myke.lane@williams.com Telephone: 505-634-4219

*Approved Branch P&L NMOC 1-11-10*

Williams Production Co.

Rosa # 75C MV

Section 10 Township 31N Range 6W



**Meador, Tasha**

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**From:** Lane, Myke  
**Sent:** Monday, June 15, 2009 10:08 AM  
**To:** Meador, Tasha  
**Subject:** FW: Rosa 147A - Pit Closure Notice

*Myke Lane*  
*WPX - San Juan Basin EH&S Team Leader*  
*505/634-4219 (off) 505/330-3198 (mob)*

*"Every new beginning starts with some other beginning's end!" ---Closing Time by Semisonic*

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**From:** Lane, Myke (E&P)  
**Sent:** Wednesday, September 03, 2008 10:22 AM  
**To:** Brandon.powell@state.nm.us; John Reidinger  
**Cc:** Lain, Matt (E&P)  
**Subject:** Rosa 147A - Pit Closure Notice

This is notice that Williams is planning to close the below-grade tank (BGT) on the reference well within the next week, weather permitting.

Williams Production  
Rosa Unit 147A  
API: 30-039-25796  
H-S33-31N-05W  
Rio Arriba Co.

This notice is to comply with 19.15.17.13.J NMAC and the approved NMOCD Closure Plan.

Please contact Matt Lain at 505-634-4242 if there are any questions.

Michael K. (Myke) Lane, PE  
EH&S Team Leader - San Juan Basin Operations  
721 S. Main/PO Box 640, Aztec, NM 87410  
(505) 634-4219(off); -4205(fax); 330-3198(cell)

*"The problems we face cannot be resolved at the same level of thinking as that which gave rise to them!"---  
shared with me by Brent Hale*

**Williams Production Co., LLC**  
**San Juan Basin: New Mexico Assets**  
**Below-Grade Tank Removal**  
**Closure Plan**

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of below-grade tanks (BGT) on Williams Production Co, LLC (WPX) locations in the San Juan Basin of New Mexico. This is WPX's standard closure procedure for all BGTs regulated under Rule 19.15.17 NMAC and operated by WPX. For those closures which do not conform to this standard closure plan, a separate well/pit specific closure plan will be developed and utilized.

**Closure Conditions and Timing:**

Pursuant to 19.15.17.13 (A) NMAC, WPX will initiate closure of any BGT should any one of these conditions occur:

- The Division requires closure because of imminent danger to fresh water, public health or the environment.
- The integrity of the BGT fails. Notification will be within 48 hours to the Division and closure will be schedule as specified in 19.15.17.12 (A)(5) NMAC.
- WPX chooses to take the BGT out-of-service due to operational needs. Closure under these conditions will be initiated within 60 days of cessation of the BGT's operation.
- BGTs installed prior to June 16, 2008 that do not meet the requirements under 19.15.17.11.1(6) NMAC and WPX chooses not to retrofit or upgrade. Closure under these conditions will be completed within five years (by June 16, 2013).

**General Plan Requirements:**

1. Prior to initiating any BGT Closure except in the case of an emergency, WPX will review County Tax Records for the current landowner of record. The landowner of record will be notified of the intent to closure the BGT by certified mail and a copy of this notification will be included in the closure report. In the case of an emergency, the landowner of record will be notified as soon as practical.
2. Notice of Closure will be given to the Aztec District office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
  - a. Operators Name (WPX)
  - b. Well Name and API Number
  - c. Location (USTR)
3. All piping will be rerouted to an alternative produced water storage/disposal location (e.g. surface tanks, temporary frac tank, ...). The well will be temporarily shutin until the rerouting is completed.
4. All produced water will be removed from the BGT following discharge-pipe rerouting. Produced water will be disposed at one of the following NMOCD approved facilities depending on the proximity of the BGT site: Rosa Unit SWD #1 (Order: SWD-916, API: 30-039-27055), Rosa Unit #94 (Order: SWD-3RP-1003-0, API: 30-039-23035), Jillson Fed. SWD #001 (Order: R10168/R10168A, API: 30-039-25465), Middle Mesa SWD #001 (Order: SWD-350-0, API: 30-045-27004) and/or Basin Disposal (Permit: NM-01-0005).
5. Solids and sludges will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011).
6. Williams will obtain prior approval from NMOCD to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liners materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of paragraph 1 subsection D or 19.15.9.712 NMAC. Disposal will be at a licensed disposal facility, presently San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.



7. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure will be removed from the location.
8. Following removal of the tank and any liner material, a five-point composite sample will be taken of the excavation and tested per 19.15.17.13(E)(4) NMAC as identified in Table 1. Grab samples will be collected from any area that is wet, discolored or showing other evidence of a release. Results will be report to the Division following receipt from the lab on Form C-141.

Table 1: Closure Criteria for BGTs

Components	Testing Methods	Closure Limits (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2
BTEX	EPA SW-846 Method 8021B or 8260B	50
TPH	EPA SW-846 Method 418.1 <sup>(1)</sup>	100
Chlorides	EPA SW-846 Method 300.1 <sup>(1)</sup>	250 <sup>(2)</sup>

<sup>(1)</sup> Method modified for solid waste.

<sup>(2)</sup> If background concentration of Chlorides greater than 250 mg/Kg, then higher concentration will be used for closure.

9. If the Division and/or Williams determine there is a release, Williams will comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC.
10. Upon completion of the tank removal, and any necessary soil remediation, the excavation will be backfilled with non-waste earthen material compacted to native and covered with a minimum of one foot of top soil or background thickness. The surface will be recontoured to match the native grade.
11. For those portions of the former pit area no longer required for production activities, WPX will seed the disturbed areas the first growing season after the pit is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintained that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. Note: WPX assumes the seeding stipulations including mix and seeding methods specified by the Surface Management Agency (BLM, BOR, USFS, Tribal, etc.) APD are Division-approved methods unless notified by the Division of their unacceptability. If a landowner agreement requires reseeding or other surface restoration that do not meet the revegetation requirements of 19.15.17.13, then WPX will submit the proposed alternative with written documentation that the landowner agrees to the alternative, for Division approval.
12. For those portions of the former pit area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

#### Closure Report:

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner & NMOCD)
- Backfilling & Cover Installation
- Site Diagram with coordinates
- Available Inspection reports
- Confirmation Sampling Analytical Results
- Disposal Facility Name(s) and Permit Number(s)
- Re-vegetation Application Rate & Seeding techniques
- Photo Documentation of Reclamation

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

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 October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company <b>Williams Production</b>	Contact <b>Michael K. Lane</b>
Address <b>PO Box 640</b>	Telephone No. <b>505-634-4219</b>
Facility Name <b>Rosa Unit #147A</b>	Facility Type <b>Well Site</b>

Surface Owner <b>USFS</b>	Mineral Owner <b>BLM</b>	Lease No.
---------------------------	--------------------------	-----------

**LOCATION OF RELEASE**

Unit Letter <b>H</b>	Section <b>33</b>	Township <b>31 N</b>	Range <b>05W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>Rio Arriba</b>
-------------------------	----------------------	-------------------------	---------------------	---------------	------------------	---------------	----------------	-----------------------------

Latitude **36.85831** Longitude **-107.36289**

**NATURE OF RELEASE**

Type of Release <b>Produced Water</b>	Volume of Release <b>UNK</b>	Volume Recovered <b>None</b>
Source of Release <b>Produced Water Pit</b>	Date and Hour of Occurrence <b>Prior to 9/12/08</b>	Date and Hour of Discovery <b>9/30/08 (Date Lab Received)</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Brandon Powell, NMOCD &amp; JJ Miller, USFS</b>	
By Whom? <b>Myke Lane</b>	Date and Hour <b>9/30/08 ~16:00 PM</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.

Describe Cause of Problem and Remedial Action Taken.

**Following removal of fiberglass (with plastic liner) pit soil samples indicate residual TPH (EPA 418.1) >100ppm. Possible incident spills during operation of pit no apparent leaks/hole in liner during removal. Additional soil to be removed, taken to a landfarm and site to be resampled for TPH.**

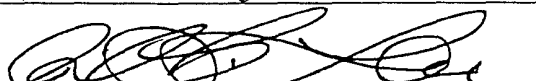
Describe Area Affected and Cleanup Action Taken.

**Follow WPX closure plan, and soils to be sampled to assess when closure standards met.**

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.

**OIL CONSERVATION DIVISION**

Signature:



Printed Name: **Michael K. Lane**

Approved by District Supervisor:

Title: **SJB EH&S Specialist**

Approval Date:

Expiration Date:

E-mail Address: **myke.lane@williams.com**

Conditions of Approval:

Attached ☐

Date: **9/30/08**

Phone: **(505) 330-3198**

\* Attach Additional Sheets If Necessary

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	WPX	Project #	04108-0003
Sample ID:	R-147A @ 7'6"	Date Reported:	10-24-08
Laboratory Number:	47724	Date Sampled:	10-08-08
Chain of Custody No:	5544	Date Received:	10-13-08
Sample Matrix:	Soil	Date Extracted:	10-17-08
Preservative:		Date Analyzed:	10-20-08
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	0.2

ND - Parameter not detected at the stated detection limit

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

Comments: Rosa 147A.

Analyst

Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-20-08 QA/QC	Date Reported:	10-24-08
Laboratory Number:	47723	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-20-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0158E+003	1.0162E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0207E+003	1.0211E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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

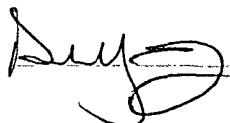
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	248	99.2%	75 - 125%
Diesel Range C10 - C28	ND	250	253	101%	75 - 125%

ND - Parameter not detected at the stated detection limit.

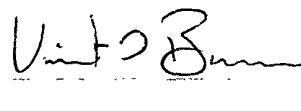
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 47723 - 47724 and 47726 - 47730.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	WPX	Project #:	04108-0003
Sample ID:	R-147A @ 7'6"	Date Reported:	10-24-08
Laboratory Number:	47724	Date Sampled:	10-08-08
Chain of Custody:	5544	Date Received:	10-13-08
Sample Matrix:	Soil	Date Analyzed:	10-20-08
Preservative:		Date Extracted:	10-17-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.5	0.9
Toluene	6.4	1.0
Ethylbenzene	4.0	1.0
p,m-Xylene	5.9	1.2
o-Xylene	4.8	0.9
Total BTEX	23.6	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries.	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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

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

Comments: Rosa 147A.

Analyst

Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client	N/A	Project #	N/A
Sample ID	10-20-BT QA/QC	Date Reported	10-24-08
Laboratory Number	47723	Date Sampled	N/A
Sample Matrix	Soil	Date Received	N/A
Preservative	N/A	Date Analyzed	10-20-08
Condition	N/A	Analysis	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range	0 - 15%		
Benzene	5.2635E+007	5.2741E+007	0.2%	ND	0.1
Toluene	3.8927E+007	3.9005E+007	0.2%	ND	0.1
Ethylbenzene	2.9843E+007	2.9902E+007	0.2%	ND	0.1
p,m-Xylene	6.3433E+007	6.3560E+007	0.2%	ND	0.1
o-Xylene	2.8672E+007	2.8729E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	11.1	11.3	1.8%	0 - 30%	0.9
Toluene	22.8	23.0	0.9%	0 - 30%	1.0
Ethylbenzene	26.8	26.9	0.4%	0 - 30%	1.0
p,m-Xylene	102	104	1.8%	0 - 30%	1.2
o-Xylene	33.0	32.7	0.9%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	11.1	50.0	60.1	98.4%	39 - 150
Toluene	22.8	50.0	67.8	93.1%	46 - 148
Ethylbenzene	26.8	50.0	74.7	97.3%	32 - 160
p,m-Xylene	102	100	194	95.9%	46 - 148
o-Xylene	33.0	50.0	79.9	96.3%	46 - 148


ND - Parameter not detected at the stated detection limit

### References

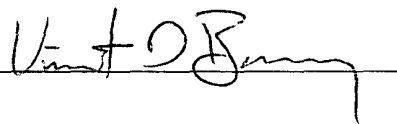
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for Samples 47723 - 47730.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	WPX	Project #:	04108-0003
Sample ID:	R-147A @ 7' 6" Depth	Date Reported:	10-27-08
Laboratory Number:	47724	Date Sampled:	10-08-08
Chain of Custody No:	5544	Date Received:	10-13-08
Sample Matrix:	Soil	Date Extracted:	10-20-08
Preservative:	Cool	Date Analyzed:	10-20-08
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	17.0	5.0
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ND = Parameter not detected at the stated detection limit.

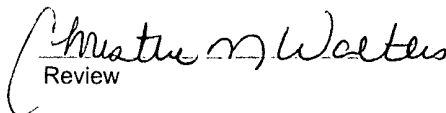
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Rosa 147A.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS  
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	10-22-08
Laboratory Number:	10-20-TPH.QA/QC 47767	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	10-20-08
Preservative:	N/A	Date Extracted:	10-20-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	10-06-08	10-20-08	1,770	1,790	1.1%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	5.0

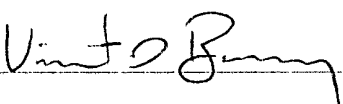
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	18.4	14.2	22.8%	+/- 30%

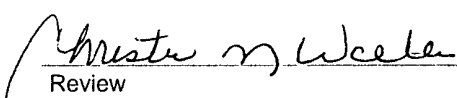
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	18.4	2,000	2,410	119%	80 - 120%

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: QA/QC for Samples 47723, 47724, 47737 - 47739 and 47767 - 47769.

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	WPX	Project #:	04108-0003
Sample ID:	R147A @ 7'6"	Date Reported:	10-25-08
Lab ID#:	47724	Date Sampled:	10-08-08
Sample Matrix:	Soil	Date Received:	10-13-08
Preservative:		Date Analyzed:	10-17-08
Condition:	Intact	Chain of Custody:	5544

Parameter

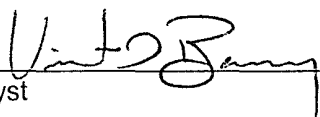
Concentration (mg/Kg)

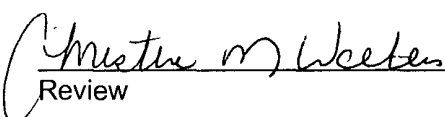
Total Chloride

20.0

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

Comments: Rosa 147A.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

5544

Client: <b>WPX</b>			Project Name / Location: <b>Rosa 147A → 8'6" Depth</b>			ANALYSIS / PARAMETERS																																													
Client Address: <b>7215 Main</b>			Sampler Name: <b>7</b>			<table border="1"> <tr> <th>TPH (Method 8015)</th> <th>BTEX (Method 8021)</th> <th>VOC (Method 8260)</th> <th>RCRA 8 Metals</th> <th>Cation / Anion</th> <th>RCI</th> <th>TCLP with H/P</th> <th>PAH</th> <th>TPH (418.1)</th> <th>CHLORIDE</th> <th></th> <th></th> <th></th> <th></th> <th>Sample Cool</th> <th>Sample Intact</th> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> </tr> </table>														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	X	X							X	X						✓
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																						
X	X							X	X						✓																																				
Client Phone No.: <b>1-34-4241</b>			Client No.: <b>04108-0003</b>																																																
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative																																													
						HgCl <sub>2</sub>	HCl																																												
<b>R147A 8'6" Depth</b>			<b>47724</b>	<b>Soil Sludge</b>	<b>402</b>																																														
<b>R147A @ 7'6"</b>	<b>10/8/08</b>	<b>11:35 AM</b>		<b>Soil Sludge</b>																																															
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Relinquished by: (Signature) <i>Talisha Meador</i>			Date	Time	Received by: (Signature) <i>Mustin M. Walker</i>			<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>RECEIVED</b>  <b>OCT 30 2008</b>  <b>WPX</b> </div>			Date	Time																																							
Relinquished by: (Signature)					Received by: (Signature)																																														
Relinquished by: (Signature)					Received by: (Signature)																																														

mike

**ENVIROTECH INC.**

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

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	WPX	Project #:	04108-0003
Sample ID:	R-147A @ 8'6" Depth	Date Reported:	10-24-08
Laboratory Number:	47723	Date Sampled:	10-08-08
Chain of Custody No:	5543	Date Received:	10-13-08
Sample Matrix:	Soil	Date Extracted:	10-17-08
Preservative:		Date Analyzed:	10-20-08
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	0.2

ND - Parameter not detected at the stated detection limit

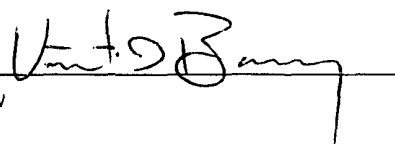
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Rosa 147A.**

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

## Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-20-08 QA/QC	Date Reported:	10-24-08
Laboratory Number:	47723	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-20-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0158E+003	1.0162E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0207E+003	1.0211E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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

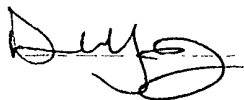
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	248	99.2%	75 - 125%
Diesel Range C10 - C28	ND	250	253	101%	75 - 125%

ND - Parameter not detected at the stated detection limit

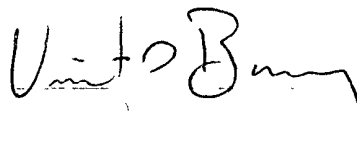
References. Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments. QA/QC for Samples 47723 - 47724 and 47726 - 47730.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	WPX	Project #:	04108-0003
Sample ID:	R-147A @ 8'6" Depth	Date Reported:	10-24-08
Laboratory Number:	47723	Date Sampled:	10-08-08
Chain of Custody:	5543	Date Received:	10-13-08
Sample Matrix:	Soil	Date Analyzed:	10-20-08
Preservative:		Date Extracted:	10-17-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	11.1	0.9
Toluene	22.8	1.0
Ethylbenzene	26.8	1.0
p,m-Xylene	102	1.2
o-Xylene	33.0	0.9
Total BTEX	196	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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

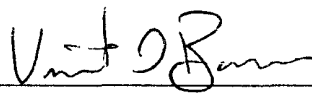
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Rosa 147A.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client	N/A	Project #	N/A
Sample ID	10-20-BT QA/QC	Date Reported	10-24-08
Laboratory Number	47723	Date Sampled	N/A
Sample Matrix	Soil	Date Received	N/A
Preservative	N/A	Date Analyzed	10-20-08
Condition	N/A	Analysis	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	5.2635E+007	5.2741E+007	0.2%	ND	0.1
Toluene	3.8927E+007	3.9005E+007	0.2%	ND	0.1
Ethylbenzene	2.9843E+007	2.9902E+007	0.2%	ND	0.1
p,m-Xylene	6.3433E+007	6.3560E+007	0.2%	ND	0.1
o-Xylene	2.8672E+007	2.8729E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	11.1	11.3	1.8%	0 - 30%	0.9
Toluene	22.8	23.0	0.9%	0 - 30%	1.0
Ethylbenzene	26.8	26.9	0.4%	0 - 30%	1.0
p,m-Xylene	102	104	1.8%	0 - 30%	1.2
o-Xylene	33.0	32.7	0.9%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	11.1	50.0	60.1	98.4%	39 - 150
Toluene	22.8	50.0	67.8	93.1%	46 - 148
Ethylbenzene	26.8	50.0	74.7	97.3%	32 - 160
p,m-Xylene	102	100	194	95.9%	46 - 148
o-Xylene	33.0	50.0	79.9	96.3%	46 - 148

ND - Parameter not detected at the stated detection limit

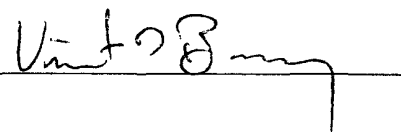
References      Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments:      QA/QC for Samples 47723 - 47730.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	WPX	Project #:	04108-0003
Sample ID:	R-147A @ 8' 6" Depth	Date Reported:	10-27-08
Laboratory Number:	47723	Date Sampled:	10-08-08
Chain of Custody No:	5543	Date Received:	10-13-08
Sample Matrix:	Soil	Date Extracted:	10-20-08
Preservative:	Cool	Date Analyzed:	10-20-08
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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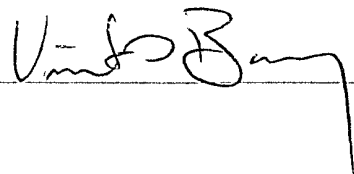
Total Petroleum Hydrocarbons	18.4	5.0
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ND = Parameter not detected at the stated detection limit.

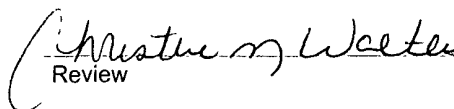
References: Method 418.1; Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Rosa 147A.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS  
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	10-22-08
Laboratory Number:	10-20-TPH.QA/QC 47767	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	10-20-08
Preservative:	N/A	Date Extracted:	10-20-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	10-06-08	10-20-08	1,770	1,790	1.1%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	5.0

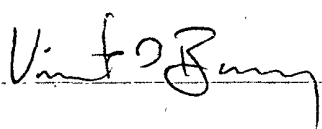
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	18.4	14.2	22.8%	+/- 30%

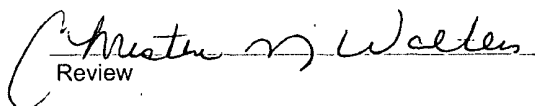
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	18.4	2,000	2,410	119%	80 - 120%

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: QA/QC for Samples 47723, 47724, 47737 - 47739 and 47767 - 47769.

  
Analyst

  
Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	WPX	Project #:	04108-0003
Sample ID:	R - 147A @ 8'6" Depth	Date Reported:	10-25-08
Lab ID#:	47723	Date Sampled:	10-08-08
Sample Matrix:	Soil	Date Received:	10-13-08
Preservative:		Date Analyzed:	10-17-08
Condition:	Intact	Chain of Custody:	5543

Parameter

Concentration (mg/Kg)

Total Chloride

10.0

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

Comments: Rosa 147A.

Analyst

Review

# CHAIN OF CUSTODY RECORD

5543

Client: <b>WPX</b>		Project Name / Location: <b>Rosa 147A-8'6" 2</b>		ANALYSIS / PARAMETERS													
Client Address: <b>7315-main</b>		Sampler Name: <b>Sierra</b>		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCPLP with H/P	PAH	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.: <b>634-4241</b>		Client No.: <b>04108-0003</b>															
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative											
						HgCl <sub>2</sub>	HCl										
<b>B-147Ae</b>	<b>10/8/08</b>	<b>12:00pm</b>	<b>47723</b>	<b>Soil Solid</b>	<b>Sludge Aqueous</b>	<b>40g</b>											
<b>9</b>				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
<b>8'6" Depth</b>				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
				<b>Soil Solid</b>	<b>Sludge Aqueous</b>												
Relinquished by: (Signature) <b>Yatawsha Meador</b>				Date <b>10/13/08</b>	Time <b>10:30 AM</b>	Received by: (Signature) <b>Must of Waste</b>				Date <b>10/13/08</b>	Time <b>10:30</b>						
Relinquished by: (Signature)						Received by: (Signature)											
Relinquished by: (Signature)						Received by: (Signature)											
<div style="text-align: center;"> <b>ENVIROTECH INC.</b>              5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615         </div>																	

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT-6.5'	Date Reported:	09-24-08
Laboratory Number:	47267	Date Sampled:	09-15-08
Chain of Custody:	5290	Date Received:	09-17-08
Sample Matrix:	Soil	Date Analyzed:	09-22-08
Preservative:		Date Extracted:	09-19-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.2	0.9
Toluene	6.4	1.0
Ethylbenzene	2.7	1.0
p,m-Xylene	5.7	1.2
o-Xylene	4.1	0.9
Total BTEX	21.1	

ND - Parameter not detected at the stated detection limit.

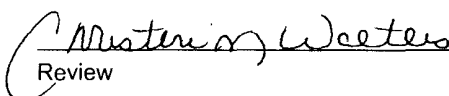
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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

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

Comments: Rosa 147A.

Analyst 

Review 

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-22-BT QA/QC	Date Reported:	09-24-08
Laboratory Number:	47266	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-22-08
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	6.2926E+007	6.3052E+007	0.2%	ND	0.1
Toluene	4.6384E+007	4.6477E+007	0.2%	ND	0.1
Ethylbenzene	3.6519E+007	3.6592E+007	0.2%	ND	0.1
p,m-Xylene	7.4355E+007	7.4504E+007	0.2%	ND	0.1
o-Xylene	3.4425E+007	3.4494E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1.5	1.5	0.0%	0 - 30%	0.9
Toluene	5.7	5.5	3.5%	0 - 30%	1.0
Ethylbenzene	2.8	2.6	7.1%	0 - 30%	1.0
p,m-Xylene	6.9	5.8	15.9%	0 - 30%	1.2
o-Xylene	4.4	4.2	4.5%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.5	50.0	50.5	98.1%	39 - 150
Toluene	5.7	50.0	49.7	89.2%	46 - 148
Ethylbenzene	2.8	50.0	53.8	102%	32 - 160
p,m-Xylene	6.9	100	97.9	91.6%	46 - 148
o-Xylene	4.4	50.0	52.4	96.3%	46 - 148

ND - Parameter not detected at the stated detection limit.

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

Comments:      QA/QC for Samples 47266 - 47273 and 47290 - 47291.

Analyst

Review

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT - 6 1/2'	Date Reported:	09-26-08
Laboratory Number:	47267	Date Sampled:	09-15-08
Chain of Custody No:	5290	Date Received:	09-17-08
Sample Matrix:	Soil	Date Extracted:	09-18-08
Preservative:		Date Analyzed:	09-18-08
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	120	5.0

ND = Parameter not detected at the stated detection limit.

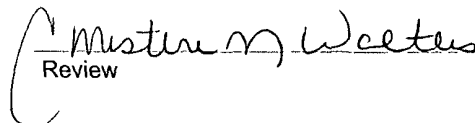
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Rosa 147A.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS  
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	09-22-08
Laboratory Number:	09-18-TPH.QA/QC 47256	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	09-18-08
Preservative:	N/A	Date Extracted:	09-18-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	09-18-08	09-18-08	1,660	1,590	4.2%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	10.0

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	93.0	86.4	7.1%	+/- 30%

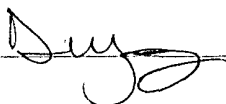
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	93.0	2,000	2,160	103%	80 - 120%

ND = Parameter not detected at the stated detection limit.

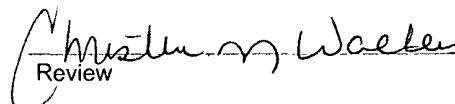
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for Samples 47256, 47265 - 47268.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT - 61/2'	Date Reported:	09-25-08
Lab ID#:	47267	Date Sampled:	09-15-08
Sample Matrix:	Soil	Date Received:	09-17-08
Preservative:		Date Analyzed:	09-18-08
Condition:	Intact	Chain of Custody:	5290

Parameter	Concentration (mg/Kg)
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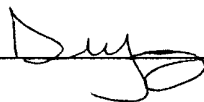
Total Chloride

24.0

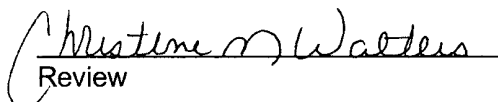
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Rosa 147A.

Analyst

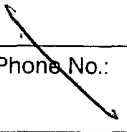

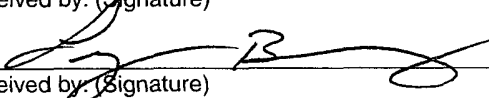


Review



# CHAIN OF CUSTODY RECORD

5290

Client: <b>WPX</b>			Project Name / Location: <b>ROSA 147A</b>				ANALYSIS / PARAMETERS													
Client Address: 			Sampler Name: <b>EMORY BEY</b>				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
Client Phone No.:			Client No.: <b>04108-0003</b>																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl <sub>2</sub> HCl														
<b>BST- 6 1/2'</b>	<b>9/15</b>	<b>1415</b>	<b>47207</b>	Soil Solid	Sludge Aqueous	<b>1</b>												<b>2</b>	<b>✓</b>	
				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 <b>9/17/08</b>	Time <b>1041</b>	Received by: (Signature) 				Date <b>9/17/08</b>	Time <b>1041</b>									
Relinquished by: (Signature)						Received by: (Signature)														
Relinquished by: (Signature)						Received by: (Signature)														

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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT-6.5'	Date Reported:	09-24-08
Laboratory Number:	47267	Date Sampled:	09-15-08
Chain of Custody:	5290	Date Received:	09-17-08
Sample Matrix:	Soil	Date Analyzed:	09-22-08
Preservative:		Date Extracted:	09-19-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.2	0.9
Toluene	6.4	1.0
Ethylbenzene	2.7	1.0
p,m-Xylene	5.7	1.2
o-Xylene	4.1	0.9
<b>Total BTEX</b>	<b>21.1</b>	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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

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

Comments: Rosa 147A.

Analyst

Review

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-22-BT QA/QC	Date Reported:	09-24-08
Laboratory Number:	47266	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-22-08
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range: 0 - 15%			
Benzene	6.2926E+007	6.3052E+007	0.2%	ND	0.1
Toluene	4.6384E+007	4.6477E+007	0.2%	ND	0.1
Ethylbenzene	3.6519E+007	3.6592E+007	0.2%	ND	0.1
p,m-Xylene	7.4355E+007	7.4504E+007	0.2%	ND	0.1
o-Xylene	3.4425E+007	3.4494E+007	0.2%	ND	0.1


Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	1.5	1.5	0.0%	0 - 30%	0.9
Toluene	5.7	5.5	3.5%	0 - 30%	1.0
Ethylbenzene	2.8	2.6	7.1%	0 - 30%	1.0
p,m-Xylene	6.9	5.8	15.9%	0 - 30%	1.2
o-Xylene	4.4	4.2	4.5%	0 - 30%	0.9

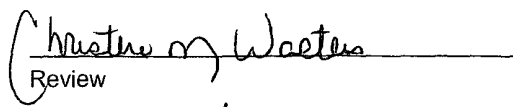
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.5	50.0	50.5	98.1%	39 - 150
Toluene	5.7	50.0	49.7	89.2%	46 - 148
Ethylbenzene	2.8	50.0	53.8	102%	32 - 160
p,m-Xylene	6.9	100	97.9	91.6%	46 - 148
o-Xylene	4.4	50.0	52.4	96.3%	46 - 148

ND - Parameter not detected at the stated detection limit.

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

Comments: QA/QC for Samples 47266 - 47273 and 47290 - 47291.

Analyst 

Review 

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT - 6 ½'	Date Reported:	09-26-08
Laboratory Number:	47267	Date Sampled:	09-15-08
Chain of Custody No:	5290	Date Received:	09-17-08
Sample Matrix:	Soil	Date Extracted:	09-18-08
Preservative:		Date Analyzed:	09-18-08
Condition:	Intact	Analysis Needed:	TPH-418.1

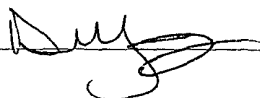
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	120	5.0

ND = Parameter not detected at the stated detection limit.

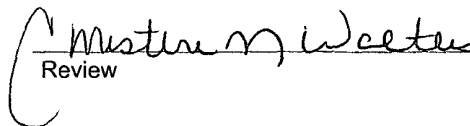
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Rosa 147A.

Analyst



Review



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS  
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	09-22-08
Laboratory Number:	09-18-TPH.QA/QC 47256	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	09-18-08
Preservative:	N/A	Date Extracted:	09-18-08
Condition:	N/A	Analysis Needed:	TPH

<b>Calibration</b>	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	09-18-08	09-18-08	1,660	1,590	4.2%	+/- 10%

<b>Blank Conc. (mg/Kg)</b>	Concentration	Detection Limit
TPH	ND	10.0

<b>Duplicate Conc. (mg/Kg)</b>	Sample	Duplicate	% Difference	Accept. Range
TPH	93.0	86.4	7.1%	+/- 30%

<b>Spike Conc. (mg/Kg)</b>	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	93.0	2,000	2,160	103%	80 - 120%

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: QA/QC for Samples 47256, 47265 - 47268.

Analyst

Review

Client:	WPX	Project #:	04108-0003
Sample ID:	BGT - 61/2'	Date Reported:	09-25-08
Lab ID#:	47267	Date Sampled:	09-15-08
Sample Matrix:	Soil	Date Received:	09-17-08
Preservative:		Date Analyzed:	09-18-08
Condition:	Intact	Chain of Custody:	5290

Parameter	Concentration (mg/Kg)
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Total Chloride

24.0

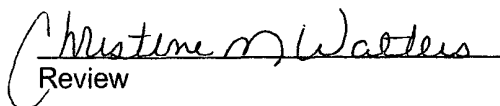
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Rosa 147A.

Analyst

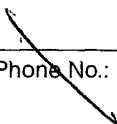
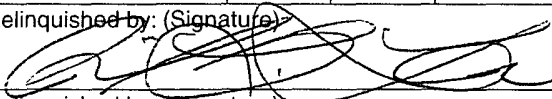
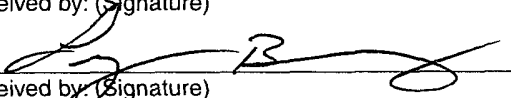


Review



# CHAIN OF CUSTODY RECORD

5290

Client: <b>WPX</b>			Project Name / Location: <b>ROSA 147A</b>			ANALYSIS / PARAMETERS																																													
Client Address: 			Sampler Name: <b>EMORY BAY</b>			<table border="1"> <tr> <th>TPH (Method 8015)</th> <th>BTEX (Method 8021)</th> <th>VOC (Method 8260)</th> <th>RCRA 8 Metals</th> <th>Cation / Anion</th> <th>PCI</th> <th>TCLP with H/P</th> <th>PAH</th> <th>TPH (418.1)</th> <th>CHLORIDE</th> <th></th> <th></th> <th></th> <th></th> <th>Sample Cool</th> <th>Sample Intact</th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>														TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	PCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE					Sample Cool	Sample Intact																
TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	PCI															TCLP with H/P	PAH	TPH (418.1)	CHLORIDE					Sample Cool	Sample Intact																						
Client Phone No.:			Client No.: <b>04108-0003</b>																																																
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl <sub>2</sub> HCl																																													
<b>BST- 6 1/2'</b>	<b>9/15</b>	<b>1415</b>	<b>47207</b>	Soil Solid	Sludge Aqueous	<b>1</b>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<b>N</b>	<input checked="" type="checkbox"/>																													
				Soil Solid	Sludge Aqueous																																														
				Soil Solid	Sludge Aqueous																																														
				Soil Solid	Sludge Aqueous																																														
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Relinquished by: (Signature) 				Date <b>9/17/08</b>	Time <b>1041</b>	Received by: (Signature) 				Date <b>9/17/08</b>	Time <b>1041</b>																																								
Relinquished by: (Signature)						Received by: (Signature)																																													
Relinquished by: (Signature)						Received by: (Signature)																																													

**ENVIROTECH INC.**

**Lane, Myke (E&P)**

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**From:** Lane, Myke (E&P)  
**Sent:** Tuesday, September 30, 2008 4:08 PM  
**To:** Jon J Miller  
**Subject:** Rosa 147A BGT removal  
**Attachments:** c141 Rosa 147A 9-30-08.DOC

JJ: Soil samples taken following the removal of a fiberglass pit indicate slight TPH contamination (EPA Method 418.1) >100 ppm. Please accept this spill report.

Michael K. (Myke) Lane, PE  
EH&S Team Leader - San Juan Basin Operations  
721 S. Main/PO Box 640, Aztec, NM 87410  
(505) 634-4219(off); -4205(fax); 330-3198(cell)

*"The problems we face cannot be resolved at the same level of thinking as that which gave rise to them!"---shared with me by Brent Hale*

9/30/2008

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-138  
Revised March 12, 2007

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. <b>Generator Name and Address:</b> Williams Production Co, LLC, PO Box 640, Aztec, NM Disposal Requested by: Jeff Gordy (NXEJJ117418)
2. <b>Originating Site:</b> Rosa #147A
3. <b>Location of Material (Street Address, City, State or ULSTR):</b> B-S33-T31N-R05W, NMPM Rio Arriba Co., NM
4. <b>Source and Description of Waste:</b> Hydrocarbon contaminated soils under former Below Grade Tank (pit).  Estimated Volume <u>5</u> yd <sup>3</sup> / bbls    Known Volume (to be entered by the operator at the end of the haul) _____ yd <sup>3</sup> / bbls
5. <b>GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b>  I, <u>Michael K. Lane</u> , representative or authorized agent for <u>Williams Production Co, LLC</u> do hereby <b>Generator Signature</b> certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)  <input type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input type="checkbox"/> <u>Monthly</u> <input type="checkbox"/> <u>Weekly</u> <input type="checkbox"/> <u>Per Load</u>  <input checked="" type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)  <input checked="" type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b>  I, _____, representative for _____ do hereby certify that <b>Representative/Agent Signature</b> representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. <b>Transporter: Adobe Contractors</b>

### OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc Soil Remediation Facility Permit #NM-01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

☐ Evaporation    ☐ Injection    ☐ Treating Plant    ☒ Landfarm    ☐ Landfill    ☐ Other

Waste Acceptance Status:

☐ **APPROVED**

☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: \_\_\_\_\_



