

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.

13695  
39-31107

Pit, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application OIL CONS. DIV DIST. 3

- 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

FEB 03 2016

**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: WPX Energy Production, LLC OGRID #: 120782  
Address: PO Box 640/721 S Main Aztec, NM 87410  
Facility or well name: Schalk 32 #4H  
API Number: 30-039-31107 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr N Section 32 Township 31N Range 04W County: Rio Arriba  
Center of Proposed Design: Latitude N36.85053 Longitude W107.28020 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 20 mil  LLDPE  HDPE  PVC  Other \_\_\_\_\_  
 String-Reinforced  
Liner Seams:  Welded  Factory  Other \_\_\_\_\_ Volume: 20,000 bbl Dimensions: L 140' x W 70' x D 12'

3.  
 **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Tank Construction material: \_\_\_\_\_  
 Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
 Visible sidewalls and liner  Visible sidewalls only  Other \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil  HDPE  PVC  Other \_\_\_\_\_

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 As per BLM specifications

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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.  
**Variations 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.*

<b><u>General siting</u></b>	
<b><u>Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.</u></b> - <input type="checkbox"/> NM Office of the State Engineer - iWATERS database search; <input type="checkbox"/> USGS; <input type="checkbox"/> Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
<b><u>Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.</u></b> NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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. <b>(Does not apply to below grade tanks)</b> - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. <b>(Does not apply to below grade tanks)</b> - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. <b>(Does not apply to below grade tanks)</b> - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. <b>(Does not apply to below grade tanks)</b> - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b><u>Below Grade Tanks</u></b>	
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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b><u>Temporary Pit using Low Chloride Drilling Fluid</u></b> (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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: 30-039-31107 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<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

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/Completion  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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 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 checked="" type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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 checked="" 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 checked="" 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 checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)

OCD Representative Signature: [Signature] Approval Date: 02/05/2016

Title: Environmental Specialist 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: October 23, 2015

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.*

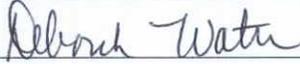
- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure for private land only)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for 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 N36.85053 Longitude W107.28020 NAD:  1927  1983

**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): Deborah Watson Title: Environmental Specialist

Signature:  Date: February 2, 2016

e-mail address: deborah.watson@wpenergy.com Telephone: 505-333-1880/505-386-9693

**WPX Energy Production, LLC**  
**San Juan Basin: New Mexico Assets**  
Temporary Pit In-place Closure Report  
Drilling/Completion and Workover  
(Groundwater >100 feet below bottom of pit liner)

**Well:** Schalk 32 #4H  
**API No:** 30-039-31107  
**Location:** N-S32-T31N-R04W, NMPM

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general in-place closure requirements of temporary pits on WPX Energy Production, LLC (WPX) locations in the San Juan Basin of New Mexico. This is WPX's standard procedure for all temporary pits to be utilized for the drilling, completion and/or workovers of oil and gas wells operated by WPX. For those temporary pits which do not conform to this standard closure plan, a separate well/pit specific closure plan will be developed and utilized.

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

- Details on Capping and Covering, where applicable
- Plot Plan (Pit Diagram)
- Division Form C-105: *WELL COMPLETION OR RECOMPLETION REPORT AND LOG*
- Notification Documentation
- Inspection Log
- Sampling Results
- Copy of Deed Notice filed with the County Clerk (format to meet County requirements)  
A deed notice is not required on state, federal or tribal land according to NMOCD FAQ dated October 30, 2008 and posted on the NMOCD website.

General Plan Requirements:

1. All free standing liquids will be removed from the pit at the start of the closure process. Liquids will be removed in a manner that the appropriate District Office approves including; recycled, reused, reclaimed, evaporated, and/or disposed of in a Division-approved facility. Once all free liquids are removed, the sludge will be stabilized by one of the following methods depending on equipment availability: blending with clean stockpiled soils or dewatering using a Bowl Decanter Centrifuge then blending with clean stockpiled soils.

To the extent practical, free liquids were pulled from the reserve pit following the completion rigoff. Haul date was September 10 and 26, 2015 to Basin Disposal San Juan County, NM -01-0005 Sec 3, T29N, 11W.

The preferred method of closure for all temporary pits will be on-site closure by in-place burial, provided all the criteria in 19.15.17.13.B are met.

On-site burial plan for this location was approved by the Aztec District Office on May 8, 2012.

2. The surface owner shall be notified of WPX's proposed closure plan using a means that provides proof of notice (i.e. certified mail/return receipt requested)

WPX notified the SMA of its intent to use a temporary pit and onsite burial in the Surface Use Plan in the well APD. The SMA was notified by email see attached. No return receipt required per BLM:FFO/NMOCD MOU dated 5/4/09.

3. Within six months of the "rig-off" status occurring WPX will ensure that the temporary pit is covered, recontoured and reseeded in progress.

Drill rig-off (July 4, 2015). Completion Rig-off (July 16, 2015) Pit covered (October 27, 2015). Pit area along with unused portions of well pad to be interim reclaimed in accordance with Surface Management Agency requirements in APD-COAs and per BLM:FFO/NMOCD MOU dated 5/4/09. Seeding and contouring completed at the site on October 30, 2015.

4. 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)

The Aztec District Office of NMOCDC was notified by email using a format acceptable to the District. The notifications are attached.

- The pit liner shall be removed above "mud level" after stabilization. Removal of the liner will consist of manually or mechanically cutting the liner at the mud level and removing all remaining liner. Care will be taken to remove "all" of the liner (I.e. anchored material). All excessive liner will be disposed of at a licensed disposal facility.

The liner to the temporary pit was removed above the "mud level" once stabilized. Removal of the liner consisted of manually cutting the liner and removing all remaining liner material above the "mud level" including the anchor material. All excessive liner was disposed of at the Bondad Landfill operated by WCA.

- Solidification of the remaining pit contents shall be achieved by mixing non-waste containing, earthen material. The solidification process will be accomplished use a combination of natural drying and mechanical mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed safe and stable. The mixing ratio shall not exceed 3 parts non-waste to 1 part pit contents.

Following removal of free liquids, the pit contents were mixed with non-waste containing, earthen material in order to achieve appropriate solidification and a consistency that was deemed safe and stable. The solidification process was accomplished using a combination of natural drying, and mechanically mixing using a dozer and trackhoe. The mixing ration was approximately 2.5-3 parts native soil to 1 part pit contents. Solidification was completed on October 26, 2015.

- A five-point composite sample will be taken of the pit using sampling tools and all samples tested per 19.15.17.13(B)(1)(b) NMAC. In the event that the criteria are not met (See Table 1), all contents will be handled per 19.15.17.13(B)(1)(a) (i.e. dig and haul to a Division-approved facility). Approval to haul will be requested of the Aztec District office prior to initiation.

A five-point composite sampling was taken of the pit area using sampling tools and the sample was tested per 19.15.17.13(B)(1)(b) NMAC. The composite sample was collected on October 26, 2015. Results are presented in Table 1 and lab report is attached.

Table 1: Closure Criteria for Temporary Pits in Non-sensitive Areas

Components	Testing Methods	Limits (mg/kg)	10/26/15 Pit (mg/kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2	0.17
BTEX	EPA SW-846 Method 8021B or 8260B	50	1.42
TPH	EPA SW-846 Method 8015M (Full Range)	2500	286
GRO/DRO	EPA SW-846 Method 8015M (GRO/DRO)	500	210
Chlorides	EPA SW-846 Method 300.1	500	330

- Upon completion of solidification and testing, the pit area will be backfilled with non-waste earthen material compacted to native conditions to enable effective revegetation for successful evapotranspiration. A minimum of four feet of cover including replacement of one foot of suitable material to establish vegetation, or the background thickness of topsoil, whichever is greater.

Upon completion of solidification and testing, the pit area was backfilled with non-waste earthen material compacted to native conditions. A minimum of four feet of cover to the extent practical was achieved and the cover included just over a foot of topsoil suitable to establish vegetation.

- Following cover, the site will be recontoured to meet the Surface Management Agency or surface owner requirements. Re-contouring will attempt to match fit, shape, line form, and texture of the surrounding geography. Re-shaping will include drainage control, prevent ponding, and minimize erosion. Natural drainages will be unimpeded and stormwater Best Management Practices (BMPs) will be used to aid in soil stabilization and protection surface water quality.

Following cover, WPX reestablished drainage and contours to approximately match previous topography meeting the Conditions of Approval in the APD and the direction offered by a BLM/USFS inspector. Cover and re-contouring were completed on October 30, 2015.

- Notification will be sent to the Aztec District office when the reclaimed area is seeded.

WPX will comply with Surface Management Agency reseeding requirements in the COAs of the APD for the referenced well, per BLM:FFO/NMOCDC MOU dated 5/4/09.

- WPX shall 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.) or Land owner as part of a surface use agreement or APD are Division-approved methods unless notified by the Division of their unacceptability.*

*WPX will comply with Surface Management Agency reseeding requirements in the COAs of the APD for the referenced well, per BLM:FFO/NMOCD MOU dated 5/4/09.*

12. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the on site burial upon the abandonment of all wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the on site burial of the temporary pit. The plate will be easily removable and a four-foot tall riser will be threaded into the top of the collar marker and welded around the base with the operations information at the time of all wells on the pad abandoned. The information will include Operator Name, Lease Name, Well Name, and number, USTR, and an indicator that the marker is an onsite pit burial location.

*The temporary pit was located with a steel marker meeting the above listed specifications. The marker has the following information welded for future reference WPX ENERGY S32-T31N-R04W-N, "Pit Burial" (photo attached). Steel marker set (November 3, 2015).*



District I  
1625 N. French Drive, Hobbs, NM 88240  
Phone: (575) 393-6161 Fax (575) 393-0720

District II  
811 S. First Street, Artesia, NM 88210  
Phone: (575) 748-1283 Fax (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax (505) 334-6170

District IV  
1220 S. St. Francis Drive, Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011  
Submit one copy to  
Appropriate District Office

OIL CONSERVATION DIVISION  
1220 South St. Francis Drive  
Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code	Property Name SCHALK 32		Well Number 2B
GRID No. 120782	Operator Name WILLIAMS PRODUCTION COMPANY		Elevation 6938'

10 Surface Location

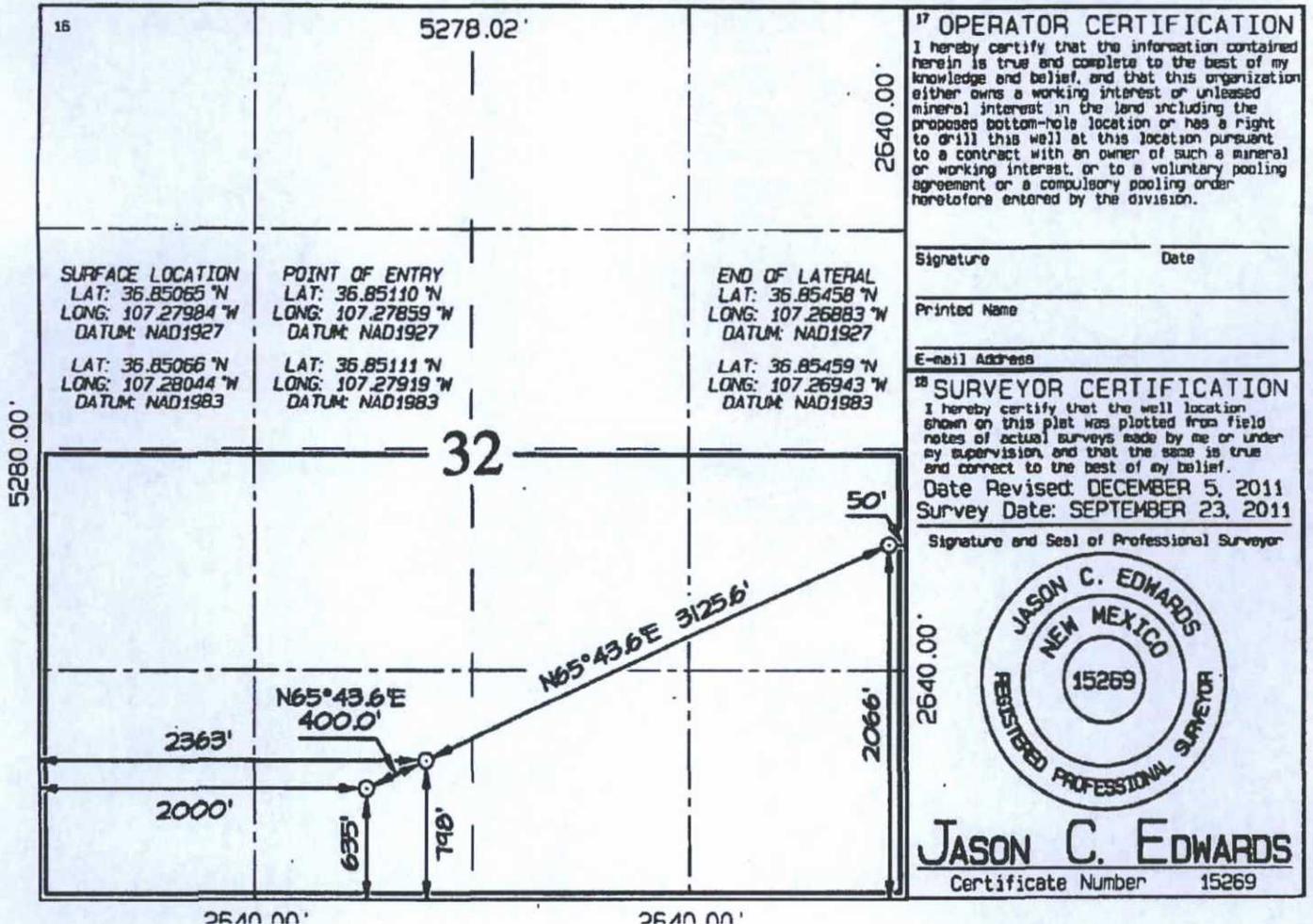
UL or Lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
N	32	31N	4W		635	SOUTH	2000	WEST	RIO ARRIBA

11 Bottom Hole Location If Different From Surface

UL or Lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
I	32	31N	4W		2066	SOUTH	50	EAST	RIO ARRIBA

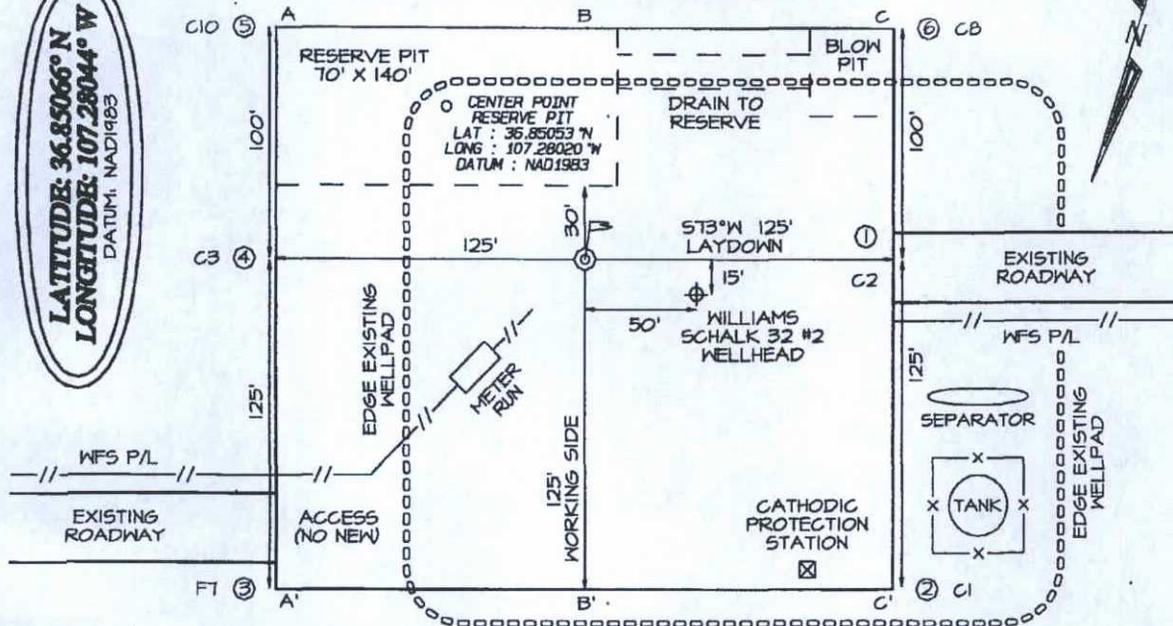
Dedicated Acres 320.0 Acres - (S/2)	Joint or Infill	Consolidation Code	Order No.
--	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

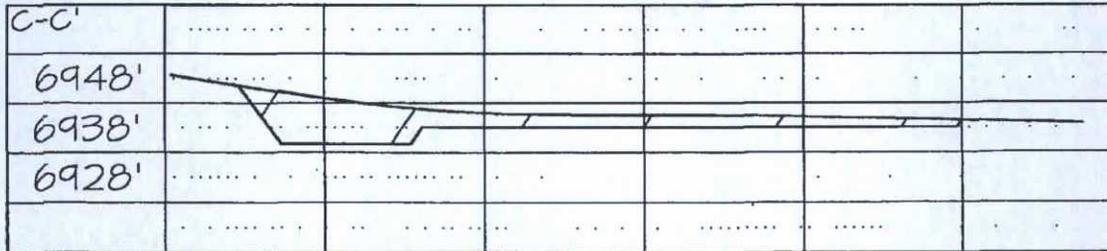
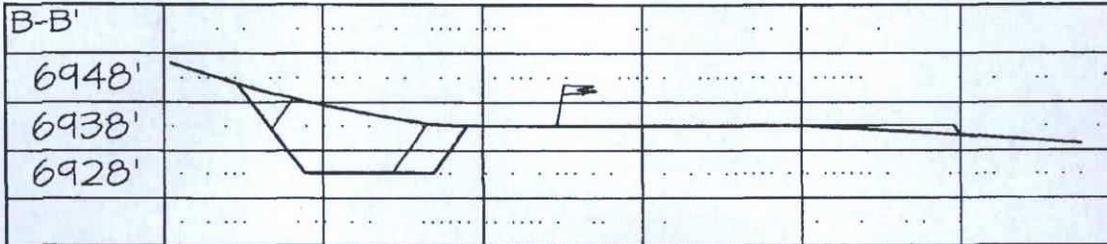
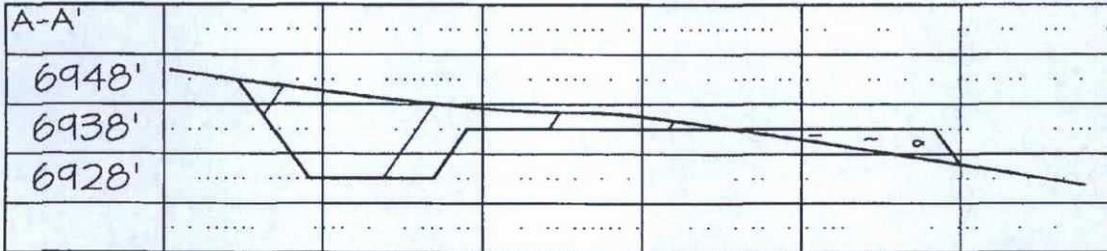


**WILLIAMS PRODUCTION COMPANY SCHALK 32 #2B  
630' FSL & 2000' FWL, SECTION 32, T31N, R4W, NMPM  
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6938'**

**LATITUDE: 36.85066° N**  
**LONGITUDE: 107.28044° W**  
 DATUM: NAD1983



Steel T-Posts have been set to define the Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.



**From:** Watson, Debbie  
**To:** ["Smith, Cory, EMNRD"; "jmillier@fs.fed.us"](mailto:Smith, Cory, EMNRD)  
**Subject:** Pit Closure Schalk 32 #4H Notification  
**Date:** Friday, October 16, 2015 5:11:00 AM

---

This email serves as notification of pit closure activities at the Schalk 32 #4H. WPX has rescheduled closure activities for the Schalk 32-4H temporary pit to begin early next week (Tuesday October 20, 2015). Notification will be sent if there is a delay in closure activities.

Operator: WPX Energy  
Well Name: Schalk 32 #4H  
API #:30-039-31107  
Unit Letter N, Section 32, Township 31N, Range 4W  
Rio Arriba County  
GPS: 36.85053, -107.28020

Please contact me with any questions.

Have a great day,

Debbie

Deborah Watson  
Environmental Specialist  
PO Box 640 | Aztec, NM 87410  
office 505.333.1880 | cell 505.386.9693 | fax 505.333.1805  
[deborah.watson@wpxenergy.com](mailto:deborah.watson@wpxenergy.com)



*If you have received this message in error, please reply to advise the sender of the error and then immediately delete this message. Thank you.*

**From:** [postmaster@usda.gov](mailto:postmaster@usda.gov)  
**To:** [jjmiller@fs.fed.us](mailto:jjmiller@fs.fed.us)  
**Subject:** Delivered: Pit Closure Schalk 32 #4H Notification  
**Date:** Friday, October 16, 2015 5:12:00 AM  
**Attachments:** [Pit Closure Schalk 32 #4H Notification.msg](#)

---

Your message has been delivered to the following recipients:  
HYPERLINK "mailto:jjmiller@fs.fed.us"jjmiller@fs.fed.us (jjmiller@fs.fed.us)  
Subject: Pit Closure Schalk 32 #4H Notification

**From:** [Microsoft Outlook](#)  
**To:** [Smith, Cory, EMNRD](#)  
**Subject:** Relayed: Pit Closure Schalk 32 #4H Notification  
**Date:** Friday, October 16, 2015 5:11:49 AM  
**Attachments:** [Pit Closure Schalk 32 #4H Notification.msg](#)

---

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:  
HYPERLINK "mailto:Cory.Smith@state.nm.us"Smith, Cory, EMNRD (Cory.Smith@state.nm.us)  
Subject: Pit Closure Schalk 32 #4H Notification

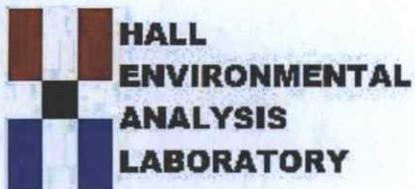


WPX Energy Production  
San Juan Basin Operations

Temporary Pit Inspection

Well Name: Schalk 32 #4H	API: 30-039-31107
Pit Type: Drilling <input checked="" type="checkbox"/> Workover <input type="checkbox"/> Cavitation <input type="checkbox"/>	Inspection: Weekly

Date	Inspector Name	Liner	Properly fenced	Slopes intact	Adequate freeboard	free oil or sheen present	Comments
8/4/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
8/11/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
8/21/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
8/28/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
9/4/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
9/11/2015	D. Watson	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
9/17/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
9/22/2015	D. Bays	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
10/1/2015	D. Watson	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>					
10/12/2015	D. Watson	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Unauthorized bags of sugar on location. Construction called to remove.				



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

October 29, 2015

Debbie Watson

WPX Energy

721 S Main Ave

Aztec, NM 87410

TEL: (505) 333-1880

FAX

RE: Schalk 32 4H Reserve Pit

OrderNo.: 1510C19

Dear Debbie Watson:

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

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: WPX Energy

Client Sample ID: SC-1

Project: Schalk 32 4H Reserve Pit

Collection Date: 10/26/2015 3:10:00 PM

Lab ID: 1510C19-001

Matrix: MEOH (SOIL)

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	330	30		mg/Kg	20	10/27/2015 10:51:48 AM	22042
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	200	9.6		mg/Kg	1	10/27/2015 12:03:08 PM	22039
Motor Oil Range Organics (MRO)	76	48		mg/Kg	1	10/27/2015 12:03:08 PM	22039
Surr: DNOP	80.2	70-130		%REC	1	10/27/2015 12:03:08 PM	22039
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	10	3.6		mg/Kg	1	10/27/2015 8:48:40 AM	R29812
Surr: BFB	99.1	75.4-113		%REC	1	10/27/2015 8:48:40 AM	R29812
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.17	0.036		mg/Kg	1	10/27/2015 8:48:40 AM	A29812
Toluene	0.53	0.036		mg/Kg	1	10/27/2015 8:48:40 AM	A29812
Ethylbenzene	0.053	0.036		mg/Kg	1	10/27/2015 8:48:40 AM	A29812
Xylenes, Total	0.67	0.072		mg/Kg	1	10/27/2015 8:48:40 AM	A29812
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	10/27/2015 8:48:40 AM	A29812

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C19

29-Oct-15

Client: WPX Energy  
Project: Schalk 32 4H Reserve Pit

Sample ID	MB-22042	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22042	RunNo:	29845					
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	909000	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-22042	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22042	RunNo:	29845					
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	909001	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	90	110			

## Qualifiers:

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C19

29-Oct-15

**Client:** WPX Energy  
**Project:** Schalk 32 4H Reserve Pit

Sample ID	MB-22039	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS	Batch ID:	22039	RunNo:	29807						
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	908123	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.1		10.00		80.5	70	130				

Sample ID	LCS-22039	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics						
Client ID:	LCSS	Batch ID:	22039	RunNo:	29807						
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	908124	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	57.4	139				
Surr: DNOP	3.9		5.000		78.9	70	130				

Sample ID	1510C19-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics						
Client ID:	SC-1	Batch ID:	22039	RunNo:	29807						
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	908300	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	240	9.5	47.57	204.1	68.1	42.3	146				
Surr: DNOP	4.4		4.757		91.5	70	130				

Sample ID	1510C19-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics						
Client ID:	SC-1	Batch ID:	22039	RunNo:	29807						
Prep Date:	10/27/2015	Analysis Date:	10/27/2015	SeqNo:	908301	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	350	9.6	48.17	204.1	295	42.3	146	37.7	28.9	RS	
Surr: DNOP	4.4		4.817		90.7	70	130	0	0		

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C19  
29-Oct-15

Client: WPX Energy  
Project: Schalk 32 4H Reserve Pit

Sample ID	1510C19-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908219	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	3.6	18.05	10.01	115	62.5	151			
Surr: BFB	780		722.0		108	75.4	113			

Sample ID	1510C19-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	R29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908220	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	3.6	18.05	10.01	93.7	62.5	151	13.1	22.1	
Surr: BFB	760		722.0		105	75.4	113	0	0	

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908636	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.0	75.4	113			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908637	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	79.6	122			
Surr: BFB	960		1000		96.3	75.4	113			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510C19

29-Oct-15

Client: WPX Energy  
Project: Schalk 32 4H Reserve Pit

Sample ID	1510C19-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	A29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908222	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.036	0.7220	0.1699	123	69.6	136			
Toluene	1.4	0.036	0.7220	0.5340	115	76.2	134			
Ethylbenzene	0.79	0.036	0.7220	0.05287	102	75.8	137			
Xylenes, Total	2.9	0.072	2.166	0.6690	104	78.9	133			
Surr: 4-Bromofluorobenzene	0.82		0.7220		113	80	120			

Sample ID	1510C19-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	A29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908223	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.036	0.7220	0.1699	124	69.6	136	0.838	20	
Toluene	1.4	0.036	0.7220	0.5340	117	76.2	134	1.33	20	
Ethylbenzene	0.80	0.036	0.7220	0.05287	103	75.8	137	1.40	20	
Xylenes, Total	2.9	0.072	2.166	0.6690	104	78.9	133	0.125	20	
Surr: 4-Bromofluorobenzene	0.82		0.7220		113	80	120	0	0	

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	A29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908650	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	A29812	RunNo:	29812					
Prep Date:		Analysis Date:	10/27/2015	SeqNo:	908651	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	117	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

**Qualifiers:**

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



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

# Sample Log-In Check List

Client Name: WPX ENERGY

Work Order Number: 1510C19

RepID: 1

Received by/date: SA 10/27/15

Logged By: Lindsay Mangin 10/27/2015 7:30:00 AM *[Signature]*

Completed By: Lindsay Mangin 10/27/2015 8:09:24 AM *[Signature]*

Reviewed By: *[Signature]* 10/27/15

### Chain of Custody

- Custody seals intact on sample bottles? Yes  No  Not Present
- Is Chain of Custody complete? Yes  No  Not Present
- How was the sample delivered? Courier

### Log In

- Was an attempt made to cool the samples? Yes  No  NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- Sample(s) in proper container(s)? Yes  No
- Sufficient sample volume for indicated test(s)? Yes  No
- Are samples (except VOA and ONG) properly preserved? Yes  No
- Was preservative added to bottles? Yes  No  NA
- VOA vials have zero headspace? Yes  No  No VOA Vials
- Were any sample containers received broken? Yes  No
- Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- Are matrices correctly identified on Chain of Custody? Yes  No
- Is it clear what analyses were requested? Yes  No
- Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

### Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

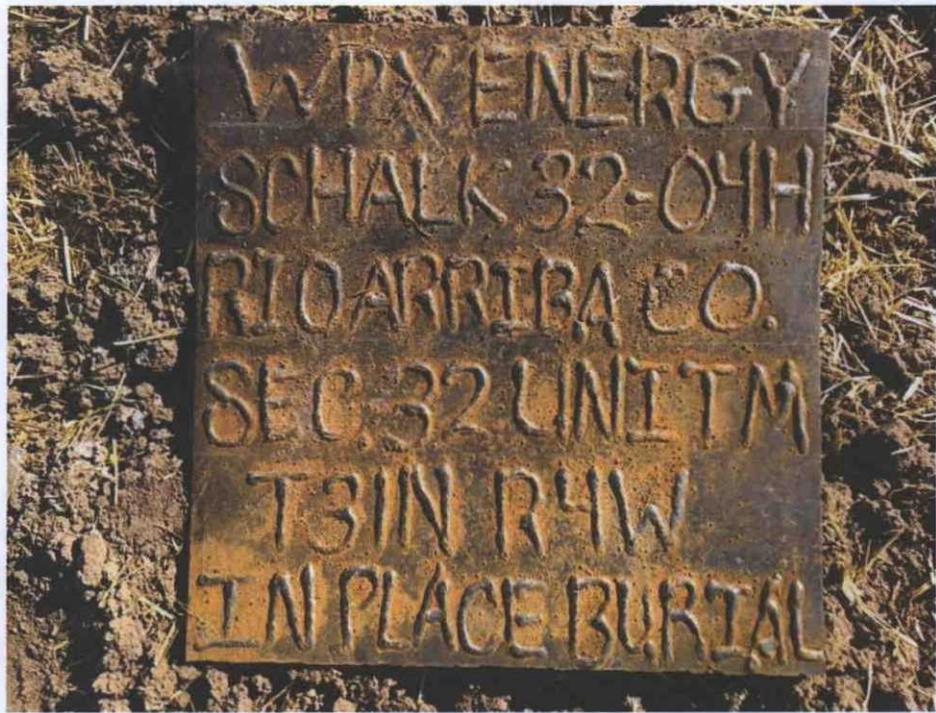
17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



**Photograph Log**  
**Schalk 32 #4H Reserve Pit Closure**  
**WPX Energy Production, LLC**

WPX Energy	
Photograph 1	
Site Name: Schalk 32 #4H Reserve Pit Closure	
API #: 30-039-31107	
Location: N36.85053, W107.28020  N-32-31N-04W Rio Arriba County, New Mexico	
Photo Taken by: Glenn Shelby	

WPX Energy	
Photograph 2	
Site Name: Schalk 32 #4H Reserve Pit Closure	
API #: 30-039-31107	
Location: N36.85053, W107.28020  N-32-31N-04W Rio Arriba County, New Mexico	
Photo Taken by: Glenn Shelby	