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

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.

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.							
I.         Operator:         Williams Operating Co, LLC         OGRID #:         120782							
Address: PO Box 640 / 721 S Main Aztec, NM 87410							
Facility or well name: Rosa Unit #350A							
API Number:3003929789 OCD Permit Number:							
U/L or Qtr/Qtr D Section 10 Township 31N Range 5W County: Rio Arriba							
Center of Proposed Design: Latitude 36.55186 Longitude							
NAD: ☐1927 ⊠ 1983							
Surface Owner: X Federal X State Private Tribal Trust or Indian Allotment							
2.  ☑ Pit: Subsection F or G of 19.15.17.11 NMAC							
Temporary: ☐ Drilling ☒ Workover							
□ Permanent □ Emergency □ Cavitation □ P&A							
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ PVC ☐ Other							
⊠ String-Reinforced							
Liner Seams:   Welded   Factory □ Other Volume:							
3.							
Closed-loop System: Subsection H of 19.15.17.11 NMAC							
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)							
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other							
Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other							
Drying Pad							
4. Subsection Lef 10 15 17 11 NMAC							
Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume: bbl. Type of fluid: MAR 2010 St. Post 3							
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							
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other							
THE LIBERTY AND THE LIBERTY AN							

5.  Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for considerations.	ion 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 BLM specification in APD						
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.						
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accemmeterial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approfice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	opriate district approval.					
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ⊠ No					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site						
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No ☐ NA					
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No ☑ NA					
(Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	I 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	☐ 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
Temporary Pits, Emergency Pits, and Below-grade Tanks Instructions: Each of the following items must be attached attached.		
<ul> <li>☐ Hydrogcologic Report (Below-grade Tanks) - based up</li> <li>☐ Hydrogcologic Data (Temporary and Emergency Pits) -</li> <li>☐ Siting Criteria Compliance Demonstrations - based upo</li> <li>☐ Design Plan - based upon the appropriate requirements</li> <li>☐ Operating and Maintenance Plan - based upon the appropriate</li> </ul>	- based upon the requirement on the appropriate requirement of 19.15.17.11 NMAC opriate requirements of 19.1	ts of Paragraph (2) of Subsection B of 19.15.17.9 NMAC nts of 19.15.17.10 NMAC
Previously Approved Design (attach copy of design)	API Number:	or Permit Number:
and 19.15.17.13 NMAC	osure) - based upon the requion-site closure) - based upon so of 19.15.17.11 NMAC ropriate requirements of 19.15 applicable) - based upon the	rements of Paragraph (3) of Subsection B of 19.15.17.9 the appropriate requirements of 19.15.17.10 NMAC
Previously Approved Design (attach copy of design)	API Number:	
☐ Previously Approved Operating and Maintenance Plan above ground steel tanks or haul-off bins and propose to impute the property of the propose of the property of the prope	· · · · · · · · · · · · · · · · · · ·	(Applies only to closed-loop system that use
13.	ement waste removal for cit	isure)
Permanent Pits Permit Application Checklist: Subsection Instructions: Each of the following items must be attached attached.  Hydrogeologic Report - based upon the requirements of Siting Criteria Compliance Demonstrations - based upon Climatological Factors Assessment  Certified Engineering Design Plans - based upon the application and Structural Integrity Design - based Leak Detection Design - based upon the appropriate relation in Liner Specifications and Compatibility Assessment - but Quality Control/Quality Assurance Construction and In Operating and Maintenance Plan - based upon the appropriate or Hazardous Odors, including H <sub>2</sub> S, Preventing Emergency Response Plan  Oil Field Waste Stream Characterization  Monitoring and Inspection Plan  Erosion Control Plan  Closure Plan - based upon the appropriate requirements	of Paragraph (1) of Subsection the appropriate requirements of 1 d upon the appropriate requirements of 19.15.17.11 N assed upon the appropriate remember of the appropriate remember of 19.15.17.11 N assed upon the appropriate remember of 19.15 appropriate requirements of 19.15	on B of 19.15.17.9 NMAC ents of 19.15.17.10 NMAC 9.15.17.11 NMAC ements of 19.15.17.11 NMAC IMAC quirements of 19.15.17.11 NMAC 5.17.12 NMAC ents of 19.15.17.11 NMAC
14.  Proposed Closure: 19.15.17.13 NMAC  Instructions: Please complete the applicable boxes, Boxes 1	4 through 18, in regards to	the proposed closure plan.
	val p systems only) ly for temporary pits and clo ☐ On-site Trench Burial	_
15.  Waste Excavation and Removal Closure Plan Checklist: ( closure plan. Please indicate, by a check mark in the box, th  Protocols and Procedures - based upon the appropriate  Confirmation Sampling Plan (if applicable) - based upon Disposal Facility Name and Permit Number (for liquidation Soil Backfill and Cover Design Specifications - based upon Re-vegetation Plan - based upon the appropriate require	hat the documents are attack requirements of 19.15.17.13 on the appropriate requirements, drilling fluids and drill cut upon the appropriate require	hed. NMAC nts of Subsection F of 19.15.17.13 NMAC tings) ments of Subsection H of 19.15.17.13 NMAC

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NM	AC				
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill confidence facilities are required.					
Disposal Facility Name: Disposal Facility Permit	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 Yes (If yes, please provide the information below) No	<i>Il not</i> be used for future service and operations?				
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 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 NM					
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. Recommendate provided below. Requests regarding changes to certain siting criteria may require administrative approvation considered an exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which must be submitted to the Santa Fe Environmental Bureau office for considered and exception which we will be submitted to the Santa Fe Environmental Bureau office for considered and exception which we will be submitted to the Santa Fe Environmental Bureau office for considered and exception which we will be submitted to the Santa Fe Environmental Bureau office for considered and exception which we will be submitted to the Santa Fe Environmental Bureau office f	l from the appropriate district office or may be				
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 w	☐ 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 w	☐ 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 w					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or la lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	kebed, sinkhole, or playa ☐ Yes ☐ No				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	of initial application.				
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the result of NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proportion	time of initial application.				
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered unde adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality.					
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				
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; U Society; Topographic map</li> </ul>	ISGS; NM Geological				
Within a 100-year floodplain FEMA map	☐ Yes ☑ No				
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be 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 Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17 Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate 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.  Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC 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	NMAC .13 NMAC F19.15.17.11 NMAC opriate requirements of 19.15.17.11 NMAC of 19.15.17.13 NMAC 13 NMAC site closure standards cannot be achieved)				

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:
OCD Approval: Permit Application (including closure plan) Closure Plan (suby) OCD Conditions (see attachment)
OCD Representative Signature:
OCD Representative Signature: Approval Date:
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.
22.     Closure Method:     Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)     If different from approved plan, please explain.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:  Instructions: Please indentify 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 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)
<ul> <li>□ Proof of Deed Notice (required for on-site closure)</li> <li>□ Plot Plan (for on-site closures and temporary pits)</li> <li>□ Confirmation Sampling Analytical Results (if applicable)</li> <li>□ Waste Material Sampling Analytical Results (required for on-site closure)</li> <li>□ Disposal Facility Name and Permit Number</li> <li>□ Soil Backfilling and Cover Installation</li> </ul>
Soin Backfining and Cover Installation
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: EH&S Specialist
Signature: Date: 2/26/10
e mail address: myke lane@williams.com Telephone: 505 624 4210

### Williams Production Co., LLC San Juan Basin: New Mexico Assets

Temporary Pit In-place Closure Report Drilling/Completion and Workover (Groundwater >100 feet bgs)

Well: (Rosa Unit #350A)
API No: 30-03929789

Location: D-\$10-T31N-R05W, NMPM

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general in-place closure requirements of temporary pits on Williams Production Co, 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)
- Inspection reports
- Sampling Results
- Division Form C-105: WELL COMPLETION OR RECOMPLETION REPORT AND LOG
- Copy of Deed Notice filed with the County Clerk (format to meet County requirements)
   <u>A deed notice is not required on state, federal or tribal land according to NMOCD FAQ</u>
   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 stockpiles soils.

To the extent practical, free liquids were pulled from the reserve pit following the completion rigoff. Haul dates were 7/2/2009 to Rosa Unit SWD #1 (Order: SWD-916, API:30-039-27055)

- 2. 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 (10/23/2008)
- 3. 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)

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

<u>Drill rig-off (10/20/2008).</u> Request for transfer to completion rig submitted (11/15/2008) to OCD Aztec District Office, Completion rig-off (6/24/2009). Pit covered (8/10/2009). 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.

- 5. 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)

Rosa Unit 5C

<u>The Aztec District Office of NMOCD was notified by email using a format acceptable to the District.</u>
Copies of the notification from Abode Contractors on (8/4/2009) is attached.

6. 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 (probably San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426).

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 San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.

7. 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 (8/7/2009).

8. 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. Results are shown in Table 1 and lab reports are

attached.

Table 1: Closure Criteria for Temporary Pits in Non-sensitive Areas with Groundwater > 100 bgs.

Components	Testing Methods	Limits (mg/Kg)	Pit (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2	ND
BTEX	EPA SW-846 Method 8021B or 8260B	50	.0115
TPH	EPA SW-846 Method 418.1	2500	26.6
GRO/DRO	EPA SW-846 Method 8015M (GRO/DRO)	500	ND
Chlorides	EPA SW-846 Method 300.1	500	60

9. 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 areater.

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.

10. 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, Williams 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 (8/10/2009).

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

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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.

Williams 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.

13. 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: Williams Production, NMSF-078768, S10-T31N-R05W-D, "Pit Burial" (photo attached). Steel marker set (9/23/2009).

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Submit To Appropri	riåte Distri	ict Office			State of New Mexico				Form C-105								
District I 1625 N. French Dr. District II	., Hobbs, N	NM 88240		Energy, Minerals and Natural Resources					Energy, Minerals and Natural Resources  July 17, 2008  1. WELL API NO.								
1301 W. Grand Av District III	enue, Arte	sia, NM 882	210	Oil Conservation Division					ŀ	3003929789 2. Type of Le			,				
1000 Rio Brazos R	ld., Aztec,	NM 87410		1220 South St. Francis Dr.						STAT	ГЕ	FEE		ED/IND	IAN		
District IV 1220 S. St. Francis	St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505							3. State Oil & Gas Lease No. NMSF 078765									
WELL	COMF	PLETIO	N OR	RECO	MPL	ETION RE	POF	RT A	ND	LOG							
4. Reason for fil	ling:											5. Lea	se Na	me or Ur Rosa Un		ment Na	me
☐ COMPLET										and #32 and	l/or	6. Well Numb 350A	ег:	Rosa Of	iit.		
#33; attach this a	and the pl										,,,,		······································				
7. Type of Comp  NEW  8. Name of Open	WELL					□PLUGBACI	к 🗆 і	DIFFE	EREN	T RESERV	/OIR	OTHER  9. OGRID	1207	82			
<u> </u>						25112											
10. Address of O	perator	P.O. BOX	X 640	AZTE	C, NM	87410						11. Pool name	or W	ildcat			
12.Location	Unit Lt	r Sect	tion	Towns	hip	Range	Lot			Feet from t	he	N/S Line	Feet	from the	E/W	Line	County
Surface:																	
вн:																	
13. Date Spudde		Date T.D. F	Reached		6/24/							(Ready to Prod		R	T, GR,	etc.)	and RKB,
18. Total Measur	red Depth	of Well		19. P	lug Bac	ck Measured Dep	pth		20.	Was Direct	tiona	l Survey Made?		21. Тур	e Electr	ic and O	ther Logs Run
22. Producing In	terval(s),	of this cor	npletion -	Top, Bot	tom, Na	ame			l							<del></del> -	
23.					CAS	ING REC	ORI	O (R	lepo	ort all st	ring	gs set in we	ell)				
CASING SI	IZE	WEI	GHT LB.	/FT.		DEPTH SET			НО	LE SIZE		CEMENTING	G RE	CORD	Al	MOUNT	PULLED
												<u> </u>					<del></del>
		<del> </del>															-
		<del> </del>					-					<u> </u>			<del></del>	<del></del>	
		<del>                                     </del>				·											
24.			•		LIN	ER RECORD					25.	T	UBIN	NG REC	ORD		
SIZE	TOP		BO	TTOM		SACKS CEM	ENT	SCR	REEN	I	SIZ	ZE	DE	PTH SE	Γ	PACK	ER SET
	-												-				****
26. Perforation	record (	interval, si	ze, and nu	mber)		<u> </u>		27.	ACI	D. SHOT.	FR	ACTURE, CE	<u>I</u> MEN	T. SOU	EEZE.	ETC.	
		,	,	,						NTERVAL		AMOUNT A					
												<u> </u>					
20							PRC	ותנ	TCT	TION		<u>.L.</u>					
28. Date First Produc	ction		Produc	tion Meth	od (Fle	owing, gas lift, p					)	Well Status	(Proa	l. or Shut	-in)		
					,								•		,		
Date of Test	Hour	rs Tested	Ch	Choke Size Prod'n For Oil - Bbl Gas - MCF Water - Bbl. Test Period			•	Gas - C	Dil Ratio								
Flow Tubing Press.	Casii	ng Pressure		alculated 24- Oil - Bbl. Gas - MCF Water - Bbl. our Rate			<u>i .</u>	Oil Gra	Oil Gravity - API - (Corr.)		r.)						
29. Disposition o	of Gas (Sa	old, used fo	r fuel, ver	ited, etc.)		L						<u> </u>	30. T	est Witne	ssed By		
31. List Attachments																	
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.																	
33. If an on-site burial was used at the well, report the exact location of the on-site burial:																	
Latitude 36.55186 Longitude -107.21509 NAD 1927 1983  The solar of the state of the																	
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief    Al   \( \setminus   \)   Printed																	
		el/(Ca		C N	ame	Tasha Mea	ador				T	itle EH&S	Coo	rdinato	r D	oate Q	118/2010
E-mail Addre	ess: tasl	na.meado	or@will	iams.co	m												

### Meador, Tasha

From: johnny@adobecontractorsinc.com

Sent: Friday, September 04, 2009 11:14 AM

To: Brandon Powell

Cc: Meador, Tasha; Lane, Myke

Subject: Williams clean-ups

### Brandon,

We will finish the clean-ups on The RU #350A and 189 next week. We will move to the RU #12D by next Thursday. Please let me know if you have any questions.

### Thanks,

Johnny Stinson Gen. Manager/ Adobe Contractors Office: (505)632-1486 Mobile: (505)320-6076 johnny@adobecontractorsinc.com



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

Client:	WPX	Project #:	04108-0003
Sample ID:	Reserve Pit	Date Reported:	09-18-09
Laboratory Number:	51688	Date Sampled:	09-14-09
Chain of Custody No:	7977	Date Received:	09-16-09
Sample Matrix:	Soil	Date Extracted:	09-16-09
Preservative:	Cool	Date Analyzed:	09-17-09
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
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 Unit #350A.

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client:	WPX	Project #:	04108-0003
Sample ID:	Reserve Pit	Date Reported:	09-18-09
Laboratory Number:	51688	Date Sampled:	09-14-09
Chain of Custody:	7977	Date Received:	09-16-09
Sample Matrix:	Soil	Date Analyzed:	09-17-09
Preservative:	Cool	Date Extracted:	09-16-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	0.9	
Toluene	3.5	1.0	
Ethylbenzene	1.3	1.0	
p,m-Xylene	3.6	1.2	
o-Xylene	3.1	0.9	
Total BTEX	11.5		

ND - Parameter not detected at the stated detection limit.

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

References:

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

December 1996.

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

USEPA, December 1996.

Comments:

Rosa Unit #350A.

Analyst



### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-17-BTEX QA/QC	Date Reported:	09-18-09
Laboratory Number:	51624	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-17-09
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	l-Cal RF:	C-Cal RF: Accept: Rang	%Diff. je:0 - 15%	Blank Conc	Defect: Limit
Benzene	1.5722E+006	1.5753E+006	0.2%	ND	0.1
Toluene	1.4265E+006	1.4294E+006	0.2%	ND	0.1
Ethylbenzene	1.2483E+006	1.2508E+006	0.2%	ND	0.1
p,m-Xylene	3.1750E+006	3.1813E+006	0.2%	ND	0.1
o-Xylene	1.1884E+006	1.1907E+006	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample Du	plicate	%Diff.	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	ND	ND	0.0%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	ND	ND	0.0%	0 - 30%	1.2
o-Xylene	ND	ND	0.0%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample Amo	ount Spiked Spik	ced Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.6	99.2%	39 - 150
Toluene	ND	50.0	48.0	96.0%	46 - 148
Ethylbenzene	ND	50.0	44.0	88.0%	32 - 160
p,m-Xylene	ND	100	96.0	96.0%	46 - 148
o-Xylene	ND	50.0	47.0	94.0%	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 51624, 51625, 51642, 51644, 51645, 51688 - 51690, 51693 and 51695.

Analyst



### **EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS**

Client:	WPX	Project #:	04108-0003
Sample ID:	Reserve Plt	Date Reported:	09-18-09
Laboratory Number:	51688	Date Sampled:	09-14-09
Chain of Custody No:	7977	Date Received:	09-16-09
Sample Matrix:	Soil	Date Extracted:	09-16-09
Preservative:	Cool	Date Analyzed:	09-16-09
Condition:	Intact	Analysis Needed:	TPH-418.1

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

**Total Petroleum Hydrocarbons** 

26.6

13.9

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 Unit 3350A.



### **EPA METHOD 418.1 TOTAL PETROLEUM HYROCARBONS QUALITY ASSURANCE REPORT**

Client: Sample ID: QA/QC QA/QC

Project #:

N/A

Laboratory Number:

09-16-TPH.QA/QC 51688

Date Reported: Date Sampled:

09-18-09

Sample Matrix:

Freon-113

Date Analyzed:

N/A 09-16-09

Preservative: Condition:

N/A N/A

Date Extracted: Analysis Needed:

09-16-09 **TPH** 

Calibration

I-Cal Date

C-Cal Date

I-Cal RF:

C-Cal RF:

% Difference

Accept. Range

08-25-09

09-16-09

1,440

1.540

6.9%

+/- 10%

Blank Conc. (mg/Kg)

Concentration Detection Limit

**TPH** 

ND

13.9

Duplicate Conc. (mg/Kg)

Sample

Duplicate

% Difference

Accept. Range

**TPH** 

**TPH** 

26.6

25.4

4.5%

+/- 30%

Spike Conc. (mg/Kg)

26.6

Sample Spike Added Spike Result % Recovery Accept Range 2,000

1,950

96.2%

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 51688 - 51690 and 51693.



### Chloride

**WPX** Project #: 04108-0003 Client: Reserve Pit Date Reported: 09-18-09 Sample ID: 51688 Date Sampled: 09-14-09 Lab ID#: Sample Matrix: Soil Date Received: 09-16-09 09-17-09 Preservative: Cool Date Analyzed: Condition: Intact Chain of Custody: 7977

Concentration (mg/Kg) **Parameter** 

**Total Chloride** 60

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Reference:

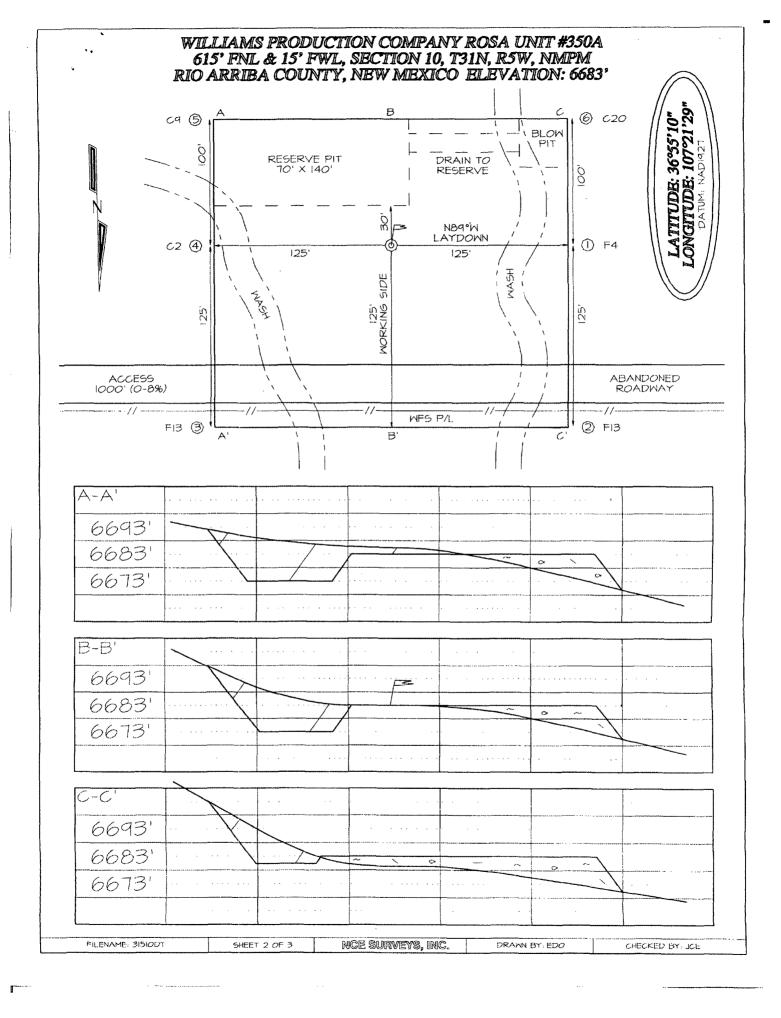
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Rosa Unit #350A.

Analyst

# CHAIN OF CUSTODY RECORD

Client:		<u>a</u>	Project Name / Location:	Location:	#	350 A 075				ANALY		ANALY	SIS/I	ARAN	ANALYSIS / PARAMETERS				,
Client Address:	0	S	i où	N N	ے ا			(9108	<b></b>										
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Sample No./ Sa	Sample Date	Sample	Lab No.	S <	Sample Matrix	No./Volume Preservative of Hou Ho	Preservativ					BCI	TCLP /	PAH ••••••••••••••••••••••••••••••••••••	CHLOI	······································		Sample	Sample
/	1,400%	12:52A	Shooy a:st shobs	<b>S</b>	Sludge Aqueous	(452		7	┼┼	ļ				7	/			7	<u> </u>
				Solid	Sludge Aqueous														
				Solid	Sludge Aqueous					·									
				Solid	Sludge Aqueous														
				Soil	Sludge Aqueous							**********							
				Soil	Sludge Aqueous								<b></b>						
				Soil	Sludge Aqueous														
				Soil	Sludge Aqueous														
				Soil	Sludge Aqueous														
				Solid	Sludge Aqueous														
Relinquished by: (Signeture)					Date 9/16/1951	Time 200 AM		Received by: (Signature)	Signatu	ire)						12	Date	Time	ا و
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	Andrew Agents Ag					envirotech Analytical Laboratory	VIVOLECM		© Coord	Sor y						-			
	,		5796 U	S Highway	5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com	gton, NM 874	101 • 505-6	32-0615	• lab@	envirote	sch-inc.	mog				ACCENT	ACCENT Printing • Form 28-0807	Form 28	9807



District I PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer DD, Artesia, NM 88211-0719

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV PO Box 2088, Santa Fe, NM 87504-2088 State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102 Revised February 21, 1994 Instructions on back Submit to Appropriate District Office State Lease – 4 Copies Fee Lease – 3 Copies

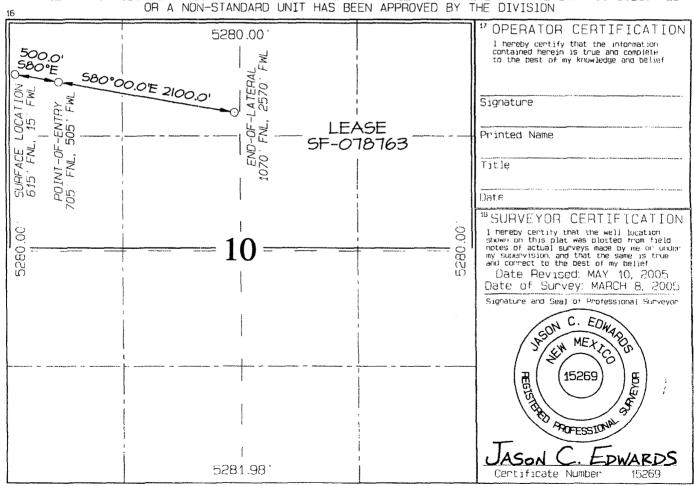
AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number	*Pool Code 71629	³Pool Name BASIN FRUITLAN	
*Property Code	· ·	rty Name	*Well Number
17033		A UNIT	350A
70GRID No.		otor Name	*Elevation
120782		DUCTION COMPANY	6683'

<sup>10</sup> Surface Location Feet from the Ul oc lot no. Sect inn Township Barras Lot Ido North/South line Feet from the East/West line RÍO 5W NORTH WEST 10 31N 615 15 1) ARRIBA <sup>11</sup> Bottom Hole Location If Different From Surface UL or lot no Section Township Lot Ido Feet from the North/South line Feet from the East/West line RIO WEST C 10 31N 5W 1070 NORTH 2570 ARRIBA 12 Dedicated Acres <sup>13</sup>Joint on Infill <sup>14</sup> Consolidation Code <sup>15</sup> Order No. 320.0 Acres - (N/2)

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED



## Exploration & Production San Juan Basin Operations

720 So. Main / PO Box 640 Aztec, NM 87410 505-634-4200 / 505-634-4205 fax



### **Temporary Pit Inspection**

FACILITY INFORMATION
Facility Name: Rosa Unit #350A API #: 30-039-29789

Pit Type: ☐ Drilling ☐ Workover ☒ Cavitation	Inspection: Daily (Rig) Weekly (Tech)
Pit Liner intact (no visible tears)	Yes No If No, Date / Time Reported to EH&S: Report to EH&S immediately
Pit Properly Fenced (no fence on rig side if on site)	Yes No Not Required (if site fully fenced)
Pit Slopes intact	☐ Yes ☐ No
Adequate freeboard (liquid level 2 <u>vertical</u> feet from berm top)	Yes No Not Applicable
Does pit have oil or sheen on it?	☐ Yes ☒ No
Flare Pit free of liquids	
Comments:	
Inspector Signature: Brandon Armstrong	
Printed Name: Brandon Armstrong	
Title: Tech 1	
Date: 4-3-09	Phone: (505)486-4793

Record Retention: Submit with Closure

File: EH&S Well Files

### Exploration & Production San Juan Basin Operations

720 So. Main / PO Box 640 Aztec, NM 87410 505-634-4200 / 505-634-4205 fax



### **Temporary Pit Inspection**

EACH ITV INFORMATION

FACILIT	I INFORMATION
Facility Name: Rosa Unit #350A	API #:30-039-29789
Pit Type: Drilling Workover 🛛 Cavitation	Inspection: Daily (Rig) Weekly (Tech)
Pit Liner intact	Yes No If No, Date / Time Reported:
	Report to EH&S immediately 3-13-09/10:00am
Pit Properly Fenced	igert Yes $igcap$ No $igcap$ Not Required (if site fully fenced)
Pit Slopes intact	⊠Yes □ No
Adequate freeboard	
Free oil or sheen present on pit	☐ Yes ☒ No
Thee on or sheen present on pil	☐ 163 ☑ 140
Flare Pit free of liquids	
Comments:	
Inspector Signature: Brandon Armstrong	
Printed Name: Brandon Armstrong	
Tillo, To oh i	
Title: Tech I	
Date: 3-13-09 Phone:	: 505-486-4793

Record Retention: Submit with Closure

File: EH&S Well Files