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 release be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surnivionment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority.	face water, ground water or the										
Operator: Williams Operating Co, LLC OGRID #:											
Address: PO Box 640 / 721 S Main Aztec, NM 87410											
Facility or well name: Rosa Unit 72B	OIL CONS. DIV.										
API Number:30-039-30336 OCD Permit Number:											
U/L or Qtr/Qtr I Section 06 Township 31N Range 5W County:											
Center of Proposed Design: Latitude 36.92762 Longitude -107.396593	NAD: 🗌 1927 🔀 1983										
Surface Owner:     Federal   State   Private   Tribal Trust or Indian Allotment											
☑ Pit:       Subsection F or G of 19.15.17.11 NMAC         Temporary:       ☑ Drilling ☐ Workover         ☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A         ☐ Lined ☐ Unlined Liner type:       Thickness											
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 intent)  Drying Pad Above Ground Steel Tanks Haul-off Bins Other  Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other  Liner Seams: Welded Factory Other											
Below-grade tank: Subsection I of 19.15.17.11 NMAC   Volume:bbl Type of fluid:   Tank Construction material:   Secondary containment with leak detection   Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off   Visible sidewalls and liner   Visible sidewalls only   Other   Liner type: Thickness mil   HDPE   PVC   Other											
5. Alternative Method:											

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

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, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specifyBLM APD Stips	hospital,							
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 of consideration of approval.  □ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for							
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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district pproval.							
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	☐ Yes ☑ No							
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No ☐ NA							
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	☐ Yes ☐ No ☑ NA							
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>								
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 Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design) API Number:  or Permit Number:
12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number:
☐ Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
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   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
Proposed Closure: 19.15.17.13 NMAC  Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative  Proposed Closure Method: Waste Excavation and Removal  Waste Removal (Closed-loop systems only)  On-site Closure Method (Only for temporary pits and closed-loop systems)  In-place Burial On-site Trench Burial  Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
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 G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13. Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if facilities are required.	
Disposal Facility Name: Disposal Facility Permit Number:	
Disposal Facility Name: Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future server. Yes (If yes, please provide the information below) \( \subseteq \) No	
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	C
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 sour provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate districtions of acceptable sour provided an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	rict 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 wells	☐ Yes ☑ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☑ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	⊠ Yes □ No □ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☑ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ⊠ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ⊠ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☑ No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☑ No
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 attached to the closure plan by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  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	15.17.11 NMAC

Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate a	and complete to the best of my knowledge and belief.
Name (Print): Michael K. Lane	Title: Sr. EH & S Specialist
Signature:	Date: 8/11/08
e-mail address:myke.lane@williams.com	Telephone: 505-634-4219
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (	(only) OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date: 8-21-08
Title: Enviolspec 0	CD Permit Number:
21. <u>Closure Report (required within 60 days of closure completion)</u> : Subsection K of Instructions: Operators are required to obtain an approved closure plan prior to in The closure report is required to be submitted to the division within 60 days of the consection of the form until an approved closure plan has been obtained and the closure	nplementing any closure activities and submitting the closure report. completion of the closure activities. Please do not complete this
L	
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.	e Closure Method
Closure Report Regarding Waste Removal Closure For Closed-loop Systems Th Instructions: Please indentify the facility or facilities for where the liquids, drilling two facilities were utilized.	fluids and drill cuttings were disposed. Use attachment if more than
	isposal Facility Permit Number:
	isposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in a Yes (If yes, please demonstrate compliance to the items below) No	areas that will not be used for future service and operations?
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	:
Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)  Proof of Deed Notice (required for on-site closure)  Plot Plan (for on-site closures and temporary pits)  Confirmation Sampling Analytical Results (if applicable)  Waste Material Sampling Analytical Results (required for on-site closure)  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)  On-site Closure Location: Latitude	must be attached to the closure report. Please indicate, by a check  NAD:   1927   1983
25.	
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure reportation. I also certify that the closure complies with all applicable closure requirements.	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

District I 1625 N. French Dr., Hobbs, NM 88240

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

State of New Mexico

Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005 Instructions on back

District II 1301 W. Grand Avenue, Artesia, NM 88210

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

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Numbe	Pool Code 72319 / 71599	'Pool Name BLANCO MESAVERDE / BASIN DAKOTA					
*Property Code 17033		operty Name OSA UNIT	*Well Number 72B				
'OGRID №	•	*Operator Name WILLIAMS PRODUCTION COMPANY					

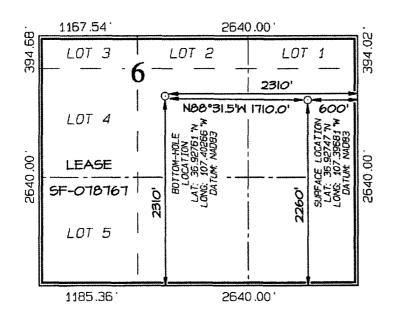
### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Rango	Let Idn	Feat from the	North/South line	Feet from the	East/West line	County
I	6	31N	5W		2260	SOUTH	600	EAST	RIO ARRIBA

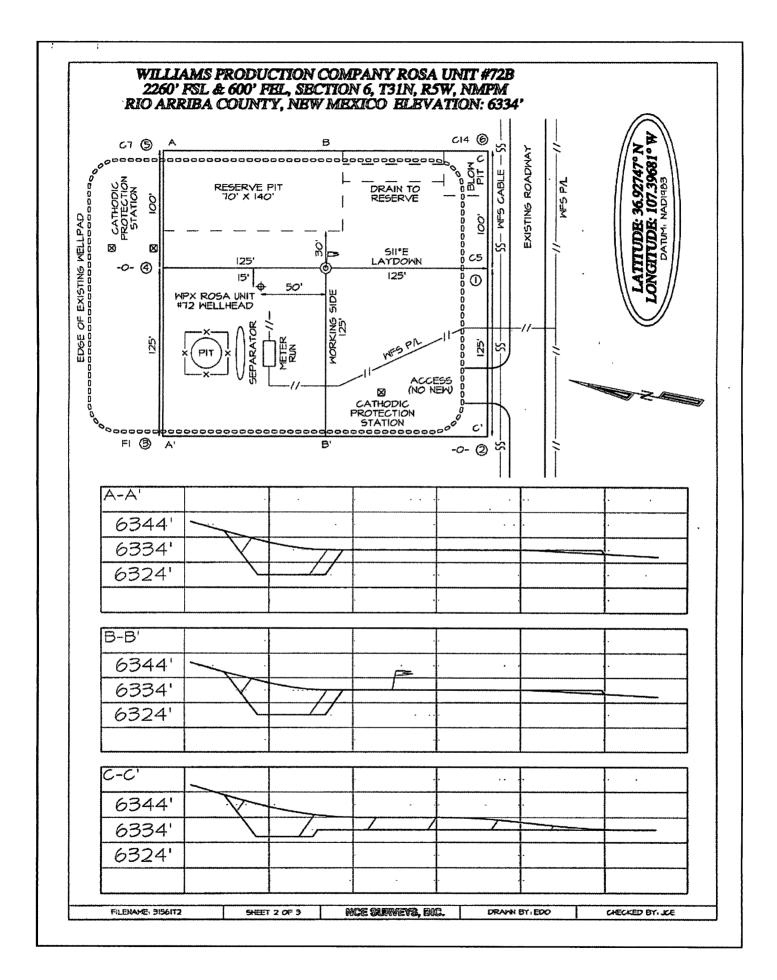
11 Bottom Hole Location If Different From Surface

Date Com 1 10 to Cool Ctorr 1 1 21 10 to Com Com Com Com											
UL or lot no.	Section	Township	Range	Lat Idn	Feet from the	North/South line	Feet from the	East/West line	County		
J	6	31N	5W		2310	SOUTH	2310	EAST	RIO ARRIBA		
12 Dedicated Acres					19 Joint or Infill	MacConsolidation Code	<sup>15</sup> Order No.				
264.56	Acres	- (Ent	ire Sec	ction)							

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



### "OPERATOR CERTIFICATION OPCHAION CENTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature Date Printed Name \*SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or undamy supervision, and that the same is true and correct to the best of my belief. Survey Date: FEBRUARY 22, 2007 Signature and Seal of Professional Surveyor SON C. EDWARD MEXICO SEW ADESSION. SAME TOR Certificate Number 15269



### Hydrogeological Report Williams Production Company, LLC Rosa Unit #72B

### **Regional Hydrological Context**

### **Referenced Well Location:**

The proposed well is located in Rio Arriba County, New Mexico on Bureau of Land Management land managed by the Farmington Field Office (FFO). The FFO management area is located in the northeastern portion of the San Juan Basin, an asymetrical syncline that extends from northwestern New Mexico into southwestern Colorado (Carson National Forest DEIS, 2007). Elevation of the proposed well is approximately 6334 feet MSL.

### **General Regional Groundwater Description:**

As a portion of the San Juan Basin, the FFO region is underlain by sandstone aquifers of the Colorado Plateau. The primary aquifer of potential concern at this location is the Unita-Animas Aquifer, composed primarily of Lower Tertiary rocks in the San Juan Basin. The aquifer consists of the San Jose Formation; the underlying Animas formation and its lateral equivalent, the Nacimiento formation; and the Ojo Alamo Sandstone. The thickness of the Unita-Animas aquifer generally increases toward the central part of the basin. In this region, the maximum thickness of the aquifer is approximately 3500 feet (USGS, 2001). This aquifer contains fresh to moderately saline water.

Groundwater generally flows toward the San Juan River and it tributaries, where it becomes alluvial groundwater or is discharged to stream flow. Additional information regarding the Hydrogeologic setting can be found in the provided references.

**Site Specific Information:** 

**Formation Thickness:** 

Surface Hydrology: The site is in the mid elevations of a northwest-facing slope,

approximately one mile north of Canon Bancos. There is no significant drainage within 300 feet of the proposed reserve pit.

1<sup>st</sup> Water Bearing Formation:

San Jose, Tertiary
Approximately 1900 feet
Nacimiento, Tertiary

Underlying Formation:
Depth to Groundwater:

Depth to groundwater is estimated at greater than 100 feet bgs.

The nearest iWATER well with water depth information was SJ-03685 (approximately 6 miles to the west, water depth 310 feet). A cathodic well (Rosa #241) within the same section and quarter-quarter and at the same elevation, recorded a depth of

moisture of 140 feet.

### **References:**

Allen, Erin. Undated. Colorado Plateau Aquifers. <a href="http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html">http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html</a>.

United States Department of Agriculture, Forest Service. 2007. Draft Environmental Impact Statement for Surface Management of Gas Leasing and Development. Jicarilla Ranger District, Carson National Forest, Rio Arriba County, New Mexico.

United States Department of the Interior. Bureau of Land Management. 2003. Final Farmington Resource Management Plan and Final Environmental Impact Statement. Farmington Field Office, Farmington, New Mexico.

United States Geological Survey. 2001. Ground Water Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C; http://capp.water.usgs.gov.

# New Mexico Office of the State Engineer POD Reports and Downloads

Township: 31N Range: 05W Sections:	
NAD27 X: Zone: Search Radius:	
County: Basin: Number: Suffix:	
Owner Name: (First) (Last) O Non-Domestic O Domestic All	
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report	
WATER COLUMN REPORT 08/07/2008	
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest)  POD Number  Tws Rng Sec q q q Zone X Y Well Water Column	
No Records found, try again	
New Mexico Office of the State Engineer POD Reports and Downloads	
Township: 32N Range: 05W Sections:	
NAD27 X: Y: Zone: Search Radius:	
County: Basin: Number: Suffix:	
Owner Name: (First) (Last) Owner Non-Domestic Owner Non-Domestic Owner All	
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report	
WATER COLUMN REPORT 08/07/2008	
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Depth Depth Water (in feet)	.n

# New Mexico Office of the State Engineer POD Reports and Downloads

Township: 31N Range: 06W Sections:
NAD27 X: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) O Non-Domestic O Domestic All
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report
WATER COLUMN REPORT 08/07/2008
(quarters are 1=NW 2=NE 3=SW 4=SE)         (quarters are biggest to smallest)       Depth       Depth       Water (in feet)         POD Number       Tws       Rng       Sec q q q       Zone       X       Y       Well       Water       Column         SJ 03685 POD1       31N       06W 07       1 2 4       460       310       150         SJ 00011       31N       06W 32       610       610

Record Count: 2

1 :

# New Mexico Office of the State Engineer POD Reports and Downloads

Township: 32N Range: 06W Sections:
NAD27 X: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) Non-Domestic Domestic All
POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

### WATER COLUMN REPORT 08/07/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)

	(quarter	s are	e big	ges	t to	smal.	lest)		Depth	Depth	Water	(in f	eet)
POD Number	Tws	Rng	Sec	qq	ĮΩ	Zone	X	Y	Well	Water	Column		
SJ 03775 POD1	32N	06W	8 0	1 3	3		282326	2181933	260	200	60		
SJ 03302	32N	06W	8 0	1 3	4				250				
SJ 03135	32N	06W	09	3 1	1				200				
SJ 01957	32N	06W	10	2 2	3				280	280			
SJ 01949	32N	06W	10	2 2	3				300	260	40		
SJ 02711	32N	06W	11	3 1	. 3				200	120	80		
SJ 03420	32N	06W	19	4 2					415	60	355		
SJ 03055	32N	06W	20	1 2	2				290	100	190		

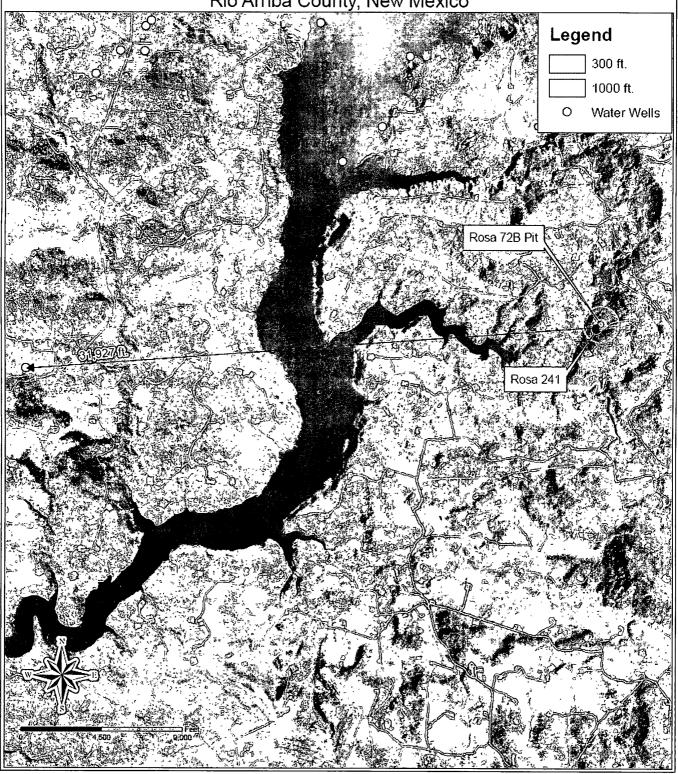
Page 11 of 20

Record Count: 8

New	Cathodic						
Gas	Reference Gas					Depth to	
Well	Well	API	Location		Moisture	Elev	
72B	241	3003924511	31N	05W	61	140	6333

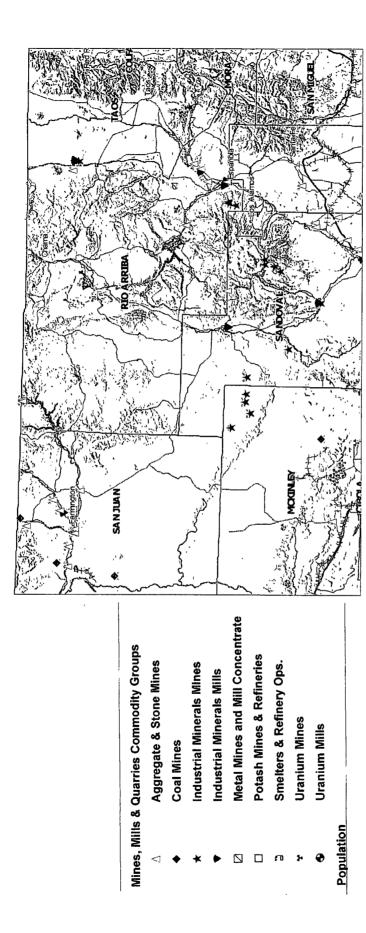
### Siting Criteria Map I Existing Known Water Wells and Springs Williams Exploration and Production Company Rosa 72B Pit

T31N, R05W, Section 06, NMPM Rio Arriba County, New Mexico



# Siting Criteria Map II Topographic Features Williams Exploration and Production Company Rosa 72B Pit T31N, R05W, Section 06, NMPM Rio Arriba County, New Mexico Legend 300 ft. buffer 200 ft. buffer Rosa 72B Pit Bancos Mesa NW NM.7.5 Minute USGS Quad

# MMQonline Public Version



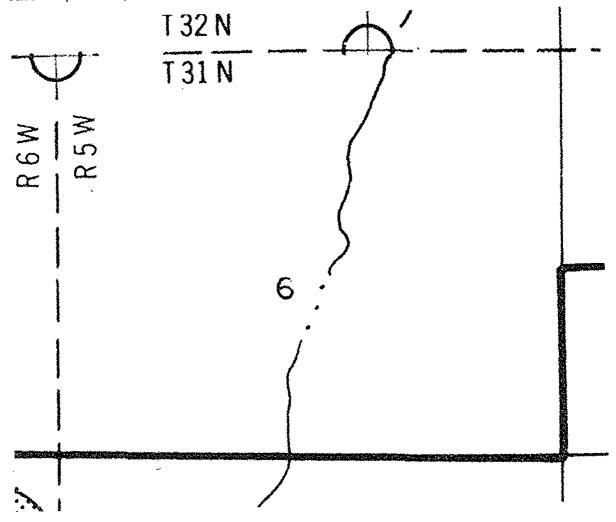


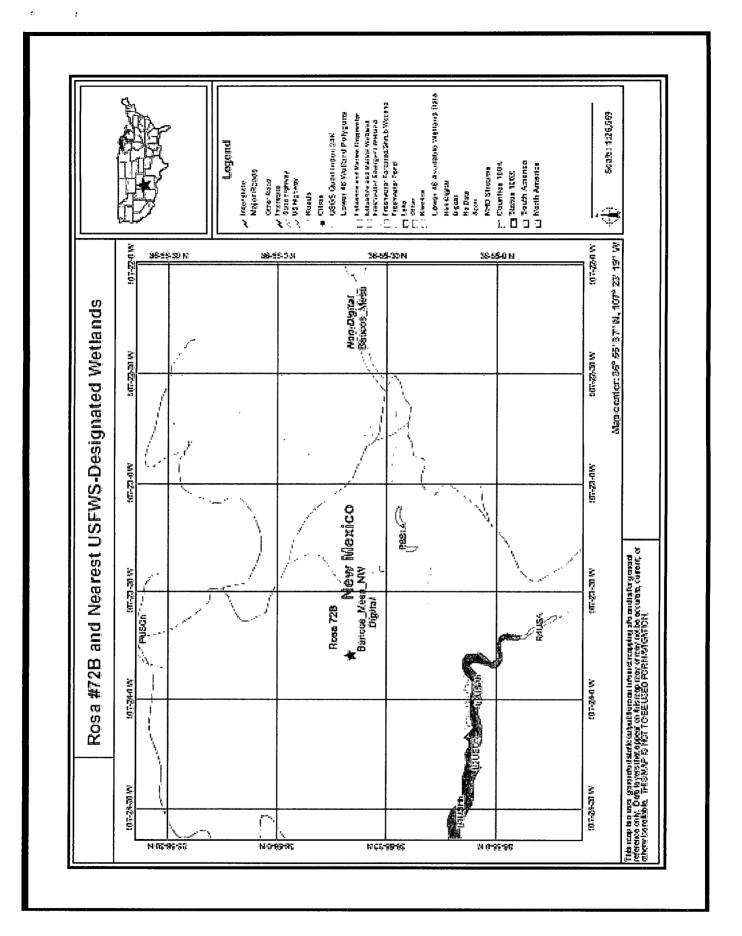
### FEMA Map - 100-Year Floodplain:

According to FEMA records, this site is not located in a 100-year floodplain (see attached FEMA map).

### **Siting Criteria Compliance Demonstrations:**

The Rosa Unit #72B well is not located in an unstable area. The location is not situated over a mine or a steep slope. Excavated pit material will not be located within 300 feet of a continuously flowing water course or within 200 feet of any other significant water course, lakebed, sinkhole, or playa lake (see Siting Compliance Map I). The site is not within 500 feet of any reported riparian areas or wetlands (see attached USFWS Wetland Map); within 500 feet of any private, domestic fresh water well or spring; or within 1000 feet of any other fresh water well or spring (see Siting Compliance Map I). The pit will not be within any incorporated municipal boundaries or defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. The location of the proposed pit is not within 300 feet of any permanent residence, school, hospital, institution, or church.





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

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

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

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- 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)

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

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

Components	Testing Methods	Closure Limits (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2
BTEX	EPA SW-846 Method 8021B or 8260B	50
TPH	EPA SW-846 Method 8015 M(Full Range)* or	2500
	Method 418.1	
GRO/DRO	EPA SW-846 Method 8015M (GRO/DRO)	500
Chlorides	EPA SW-846 Method 300.1	1000

<sup>\*</sup> Preferred method

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

### Lane, Myke (E&P)

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From: Lane, Myke (E&P)

Sent: Tuesday, August 12, 2008 7:38 AM

To: Mark Kelly (Mark\_Kelly@nm.bim.gov)

Cc: Brandon.powell@state.nm.us; Higgins, Larry (E&P); Riley, Heather (E&P)

Subject: Landowner Notice - Rosa 072B

### Mark;

This correspondence is to notify the BLM-FFO that Williams Production is planning to close the temporary pit associated with the drilling and completion of the reference well on-site. The planned closure is consistent with the Surface Use Plan submitted with Williams APD, approved earlier.

This notice is to comply with the NMOCD Pit Rule 19.15.17 NMAC requirement to notify surface owners of the operator's intended closure method. If site conditions do not allow Williams to close in-place, we will provide your office with prior notice should the BLM have any concerns.

Please contact us if there are any questions or additional information is required

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

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