STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSES OF CONSIDERING:

CASE NO. 14463

IN THE MATTER OF THE APPLICATION OF WILLIAMS PRODUCTION CO., LLC FOR APPROVAL OF A CLOSED LOOP SYSTEM FOR THE ROSA SWD WELL NO. 2 AND FOR IN-PLACE BURIAL OF DRILLING WASTES AT ANOTHER WELL LOCATION, RIO ARRIBA COUNTY, NEW MEXICO.

RESPONSE TO OIL CONSERVATION DIVISION'S MOTION TO DISMISS WILLIAMS PRODUCTION COMPANY LLC'S APPLICATION FOR HEARING

Applicant Williams Production Company, LLC ("Williams") responds to the Oil Conservation Division Enforcement and Compliance Manager's ("Manager") Motion to Dismiss the Application for Hearing in the above-referenced matter and states as follows:

1. The question presented by Williams' application is whether "on-site" means at the site where the waste is generated or at the site where the waste is buried. This is the question presented by Williams' application and will be the same question whether or not the Division requires Williams to go back to the district office, submit another C-144 and be denied again.

2. Williams has proposed to drill the Rosa SWD Well No. 2 (API No. 30-039-30812) for the disposal of produced water in the Entrada formation at a location 2460 feet from the North line and 2095 feet from the West line of Section 25, Township 31 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

3. On November 9, 2009, Williams submitted a Form C-144 for a temporary pit and in-place burial for the Rosa SWD No. 2. The C-144 was denied by the Aztec District Office on November 30, 2009 because it was determined that groundwater was less than 50 feet from the bottom of the proposed pit.

4. Williams then submitted a C-144 to the district office on January 28, 2010 for a closed loop system at the Rosa SWD No. 2 and then to utilize a temporary pit at another well site and

then to bury the waste on-site. In the January C-144, Williams proposed to haul the cuttings and fluids to the temporary pit for the Rosa Unit Well No. 394A located approximately a mile away.

5. The basis for the denial is important to consider. The C-144 was denied because, after consulting the Environmental Bureau, the district office determined that Williams' proposal was for "off-site disposal" which would require a permit pursuant to Rule 36. The denial clearly cites the provisions of the Pit Rule that allow for on-site or in-place burial. See Attachment A. The denial is not based on any particular condition at the Rosa 394A wellsite or failure to meet a siting, construction or closure criteria. The denial is solely based on the district office's interpretation that an operator may only use in-place burial at the wellsite where the waste is generated.

6. At the time of filing the application for hearing, Williams learned that the Rosa Well No. 394A well was no longer on the drilling schedule and therefore it would not be able to share a pit with the Rosa SWD No. 2.

7. In its application for hearing, Williams then proposed to instead utilize the temporary pit for the Rosa Unit Well No. 634B which is at a surface location in Section 23, Township 31 North, Range 6 West –approximately 10 miles away. The Rosa 634B is connected to the Rosa SWD No. 2 by a good road. The Application for Permit to Drill the Rosa 634B was approved by the BLM on April 6, 2010. See Attachment B.

8. Williams submitted the C-144 for the Rosa 634B to the Aztec district office on March 9, 2010. The Aztec district office has given verbal approval of the C-144 and Williams understands that written approval will be given now that the APD has been approved for the well. See Attachment C.

9. A revised C-144 for the Rosa SWD No. 2 and 634B has not been submitted to the district office because of the district office's denial of Williams' prior application basing its decision on its interpretation of "on-site."

10. Time is of the essence with this application. Williams has been attempting to permit a pit for the Rosa SWD No. 2 since November 2009. Williams only has one disposal well on the Rosa Unit at this time and is in critical need for this second disposal well. Williams must have the Rosa SWD Well No. 2 operational before the close of the current drilling window imposed by the Forest Service. If the Division does not approve this application, Williams will be forced to

haul the waste over 75 miles to an approved facility at great cost financially and to the environment.

11. Williams' application meets the intent of the pit rule: To keep drill and completion wastes out of environmentally sensitive areas and to reduce overall surface impact.

12. Williams has submitted to the district office a C-144 which details the proposed closed loop system for the Rosa SWD No. 2 and another C-144 which describes the proposed temporary pit and procedure for in-place burial of the pit for the Rosa 634B. The only thing that will change about a C-144 which includes both the Rosa SWD No. 2 and the 634B is the aerial extent of the temporary pit (for margin of safety purposes). The district office has approved co-located pits on the Rosa Unit previously and the same design would be utilized here. Stated a different way:

a. Williams has submitted a detailed plan to the district office for a temporary pit which meets all the requirements of 19.15.17.9(B) NMAC. The application was submitted on a C-144 with all required attachments as required by 19.15.17.9 NMAC. See Attachment C. This plan has been verbally approved by the district office.

b. Williams submitted a detailed plan for a closed-loop system as required by 19.15.17.9(B). See Attachment A and Exhibit C to Amended Application. The denial by the district office did not discuss whether the proposed closed-loop system was by itself acceptable. However, the C-144 was denied.

13. In the Motion to Dismiss, the Manager states that Williams has not submitted an application that includes the closed loop system for the Rosa SWD No. 2 and the in-place burial of the waste from the Rosa SWD No. 2 at the Rosa 634B. See Motion at p. 5. Since Williams received a denial already that contemplates this same scenario, it would be a fool's errand to require Williams to first revise the C-144 and submit to the district office again - only to be denied again for the same reason. The Manager's argument amounts to form over substance because it only delays this matter coming back to the Division Hearing Examiner for a determination.

14. The Manager also states that Williams is not entitled to a hearing at this point because a permit application has not been denied. See Motion at p. 5. Williams has in fact had its C-144 for its proposal to use a closed loop system at the Rosa SWD Well No. 2 and in-place burial at another wellsite denied.

15. Affected parties have been notified of Williams' application. In fact, the surface owners, the BLM and the Forest Service, have indicated their approval to Williams of the application. BLM has written a letter of support and the Forest Service has told Williams that they will also be writing a letter of support. See Attachment D.

WHEREFORE, Williams respectfully requests the Division deny the Enforcement and Compliance Manager's motion to dismiss.

Respectfully submitted,

HOLLAND & HART LLP

By: Ocean Munds-Dry

Ocean Munds-Dry
William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

ATTORNEYS FOR WILLIAMS PRODUCTION CO., LLC

CERTIFICATE OF SERVICE

I certify that on April 8, 2010 I served a copy of the foregoing document to the following by Hand-Delivery:

Sonny Swazo
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505
Sonny.Swazo@state.nm.us

Ocean Munds-Dry

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

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

Form C-144
July 21, 2008

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

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

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

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

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

1.
Operator: Williams Operating Co, LLC OGRID #: 120782
Address: PO Box 640 / 721 S Main Aztec, NM 87410
Facility or well name: Rosa Unit 634 B
API Number: OCD Permit Number:
U/L or Qtr/Qtr H Section 22 Township 31N Range 6W County: Rio Arriba
Center of Proposed Design: Latitude 36.88756N Longitude -107.44689W NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ 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 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other Volume: 12000 bbl Dimensions: L 80' x W 40' x D 20'

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
Liner Seams: ☐ Welded ☐ Factory ☐ Other

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4.
☐ **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.

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 As per BLM specifications

7.

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

☐ Screen ☐ Netting ☐ Other

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

8.

Signs: Subsection C of 19.15.17.11 NMAC

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

☒ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

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

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

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

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

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

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

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ 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)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ 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

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

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

- ☒ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☒ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☒ Closed-loop System ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☒ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☒ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

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

16.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: Envirotech Disposal Facility Permit Number: NM-01-0011

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

18.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

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

Name (Print): Michael K. Lane Title: Sr. EH & S Specialist

Signature: Date: 3/2/10

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

20.

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

OCD Representative Signature: **Approval Date:**

Title: **OCD Permit Number:**

21.

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

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

☐ **Closure Completion Date:**

22.

Closure Method:

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

☐ If different from approved plan, please explain.

23.

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

Instructions: Please 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 Permit Number:

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

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

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

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

24.

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

☐ Proof of Closure Notice (surface owner and division)

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

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

☐ Confirmation Sampling Analytical Results (if applicable)

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

☐ Disposal Facility Name and Permit Number

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

☐ Site Reclamation (Photo Documentation)

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

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Title:

Signature: Date:

e-mail address: Telephone:

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

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
17033	ROSA UNIT	634B

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WILLIAMS PRODUCTION COMPANY	6260'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	22	31N	6W		1485	NORTH	645	EAST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	31N	6W		1980	NORTH	20	EAST	RIO ARRIBA

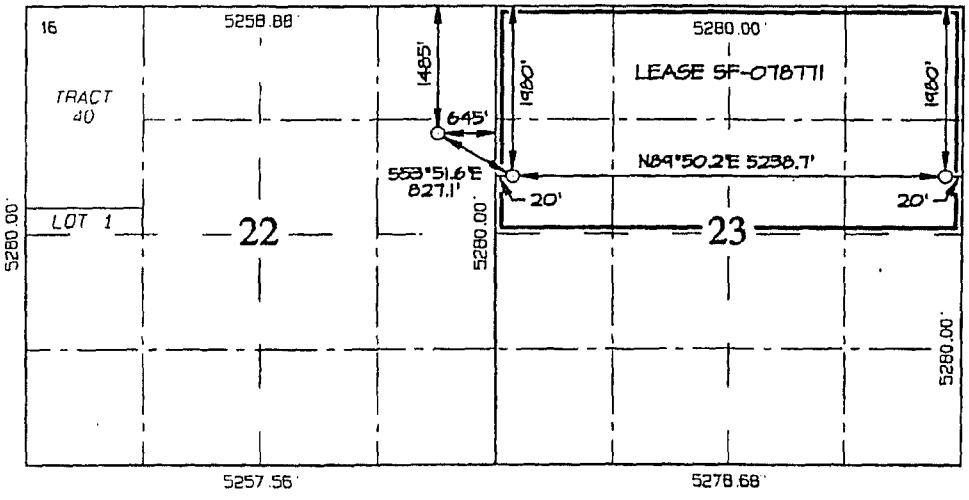
[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.0 Acres - (N/2)			

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

SURFACE LOCATION
1485' FNL 645' FEL
SECTION 22, T31N, R6W
LAT: 36.88830 'N
LONG: 107.44339 'W
DATUM: NAD1983

POINT-OF-ENTRY
1980' FNL 20' FWL
SECTION 23, T31N, R6W
LAT: 36.88695 'N
LONG: 107.44111 'W
DATUM: NAD1983

END-OF-LATERAL
1980' FNL 20' FEL
SECTION 23, T31N, R6W
LAT: 36.88693 'N
LONG: 107.42320 'W
DATUM: NAD1983



THE HORIZONTAL LATERAL REPRESENTED ON THIS PLAT CORRESPONDS TO THE BLACK SEGMENT WHICH VARIES IN THE ELEVATION FROM 6891.0' AT THE POINT-OF-ENTRY TO 6749.0' AT THE END-OF-LATERAL.

[17] OPERATOR CERTIFICATION

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

[18] 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 under my supervision, and that the same is true and correct to the best of my belief.

Survey Date: SEPTEMBER 11, 2009

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

634B D - A00

WILLIAMS PRODUCTION COMPANY ROSA UNIT #634B
1485' FNL & 645' FEL, SECTION 22, T31N, R6W, NMPM
RIO ARRIBA COUNTY, NEW MEXICO ELEVATION: 6260'

GRAPHIC SCALE 1"=70'

0 70 140

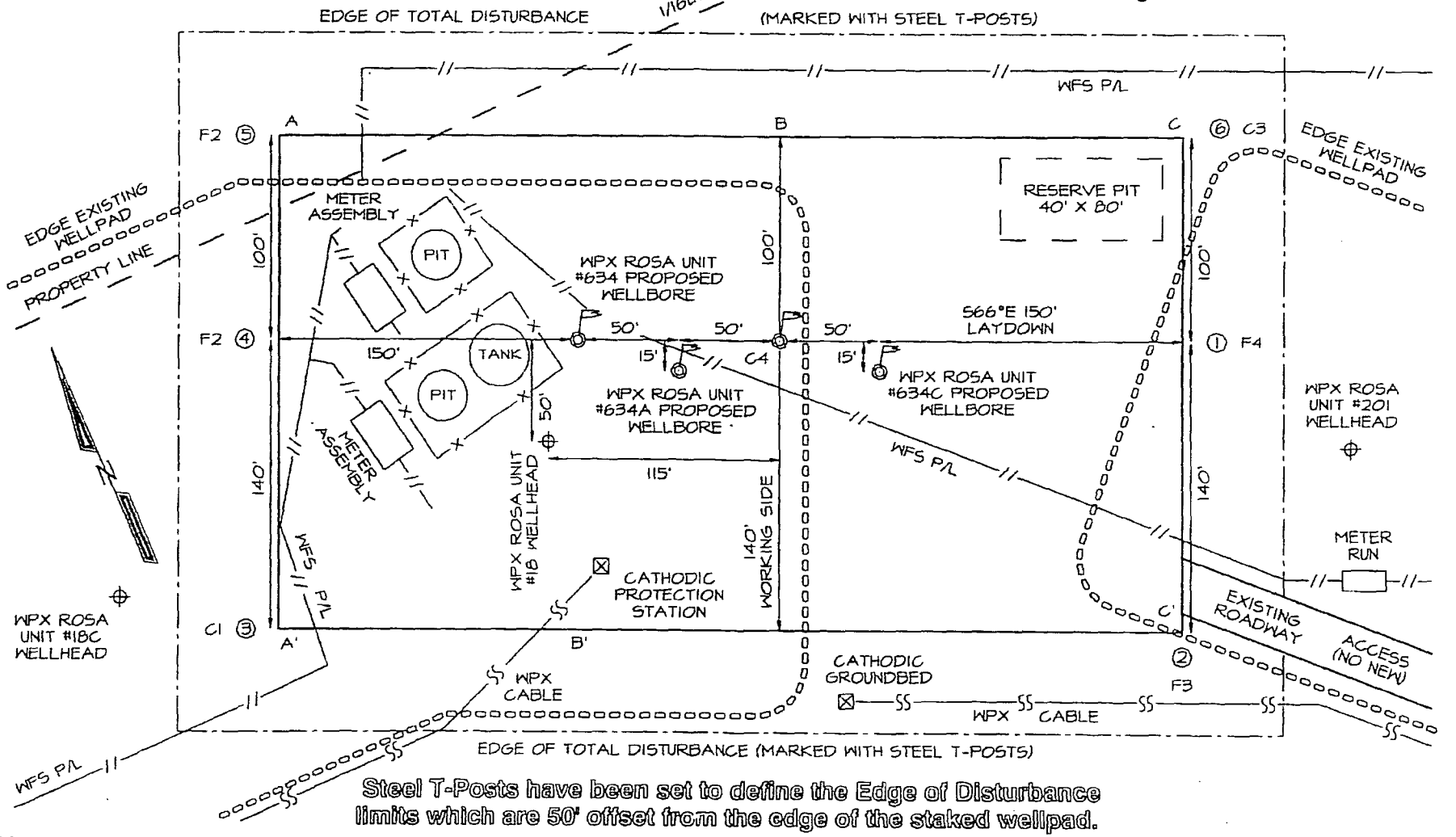
~ SURFACE OWNER ~

Bureau of Land Manangement & Bureau of Reclamation

LATITUDE: 36.88830° N
LONGITUDE: 107.44339° W
DATUM: NAD1983

Bureau of Reclamation - 0.30 Acres

Bureau of Land Manangement - 3.99 Acres



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

Hydrogeological Report
Williams Production Company, LLC
Rosa Unit #634 Series

Regional Hydrological Context

Referenced Well Location:
The referenced well and pit is located on Bureau of Land Management land within Farmington Field Office (FFO) management jurisdiction in Rio Arriba County, New Mexico. This site is positioned in the northeastern portion of the San Juan Basin, an asymmetrical syncline that extends from northwestern New Mexico into southwestern Colorado (Carson National Forest FEIS, 2008). Elevation of the referenced well is approximately 6256 feet MSL.

General Regional Groundwater Description:
As a portion of the San Juan Basin, the FFO administrative area is underlain by sandstone aquifers of the Colorado Plateau. The primary aquifer of potential concern at this location is the Uinta-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 Uinta-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:

	Surface Hydrology: The proposed pit is located on a mid-elevation, north-facing slope toward Laguna Seca Draw/Navajo Reservoir junction (0.17 miles to the north).
1st Water Bearing Formation:	San Jose, Tertiary
Formation Thickness:	Approximately 1,900 ft.
Underlying Formation:	Nacimiento, Tertiary
Depth to Groundwater:	Depth to groundwater is estimated at greater than 100 feet bgs. Within a one-mile radius of this location, there are no iWATERS wells with recorded water depth information. However, cathodic data associated with the Rosa Unit Nos. 12B (approximately 1,696 feet from pit), 18 (approximately 110 feet from pit) and 201 (approximately 612 feet from pit) show depth to moisture between 110 and 300 feet (see Siting Criteria Map I for details).

References:

Allen, Erin. Undated. Colorado Plateau Aquifers.
http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html.

New Mexico Office of the State Engineer. 2010. iWATERS Database search. March, 2010.

United States Department of Agriculture, Forest Service. 2008. Final 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
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 22 Township: 31N Range: 09W

New Mexico Office of the State Engineer

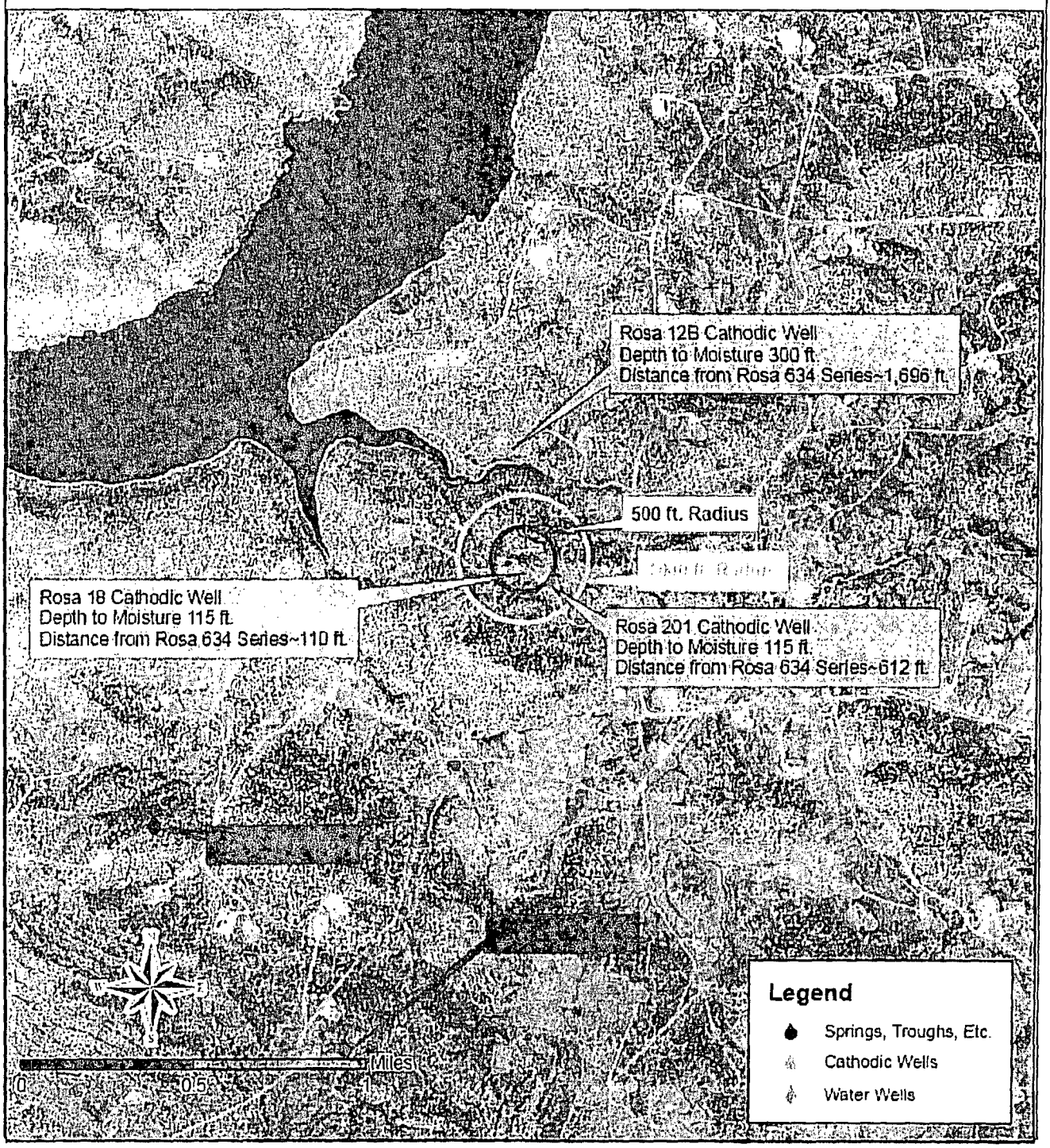
Water Column/Average Depth to Water

No records found.

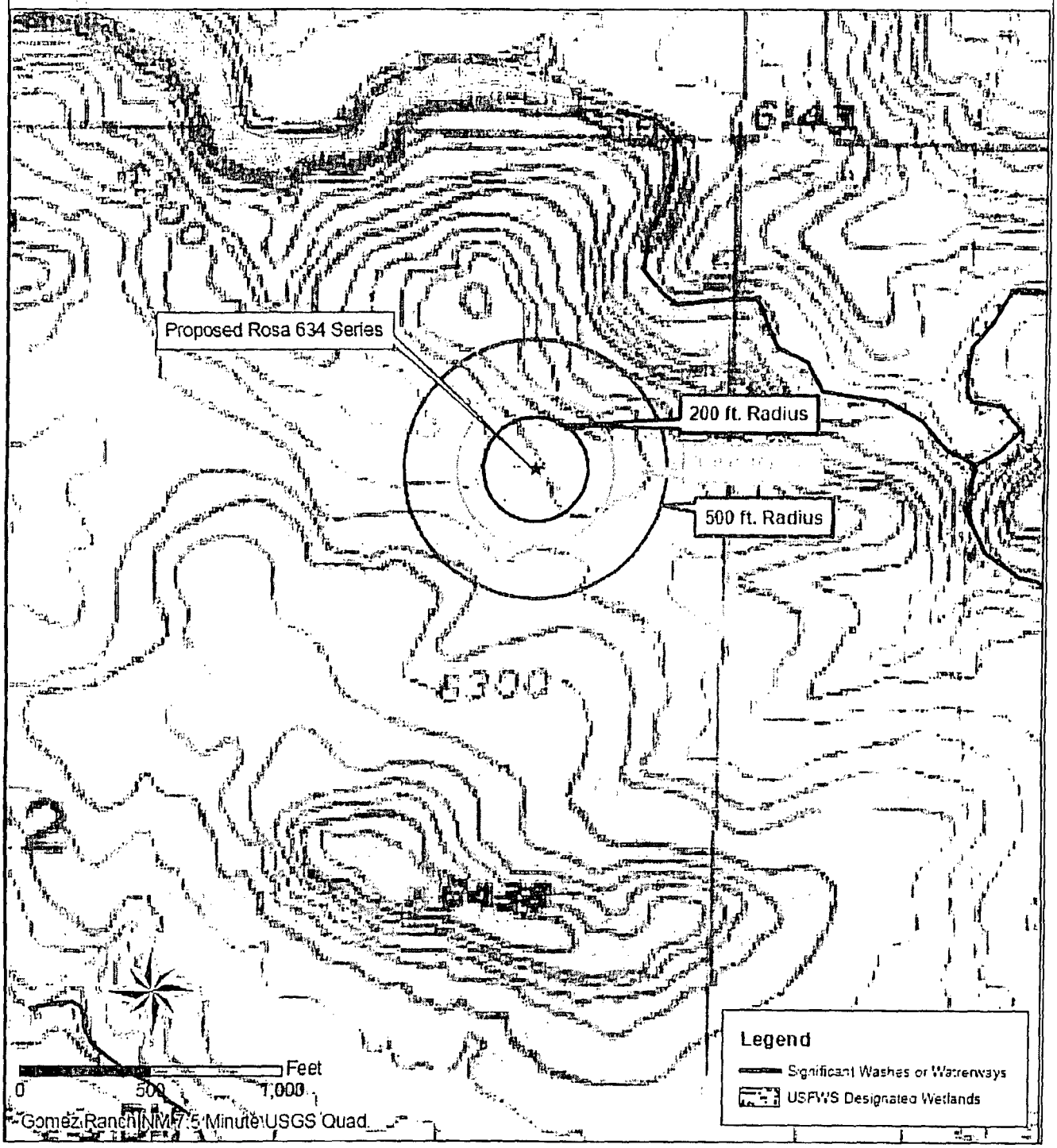
PLSS Search:

Section(s): 22 Township: 31N Range: 08W

Siting Criteria Map I
Water Wells, Cathodic Wells, & Springs
Williams Production Company, LLC
Proposed Rosa Unit # 634 Series
T31N, R06W, Section 22 NMPM
Rio Arriba County, New Mexico



Siting Criteria Map II
Topographic Features
Williams Production Company, LLC
Rosa Unit No. 634 Series
T31N, R06W, Section 22 NMPM
Rio Arriba County, New Mexico

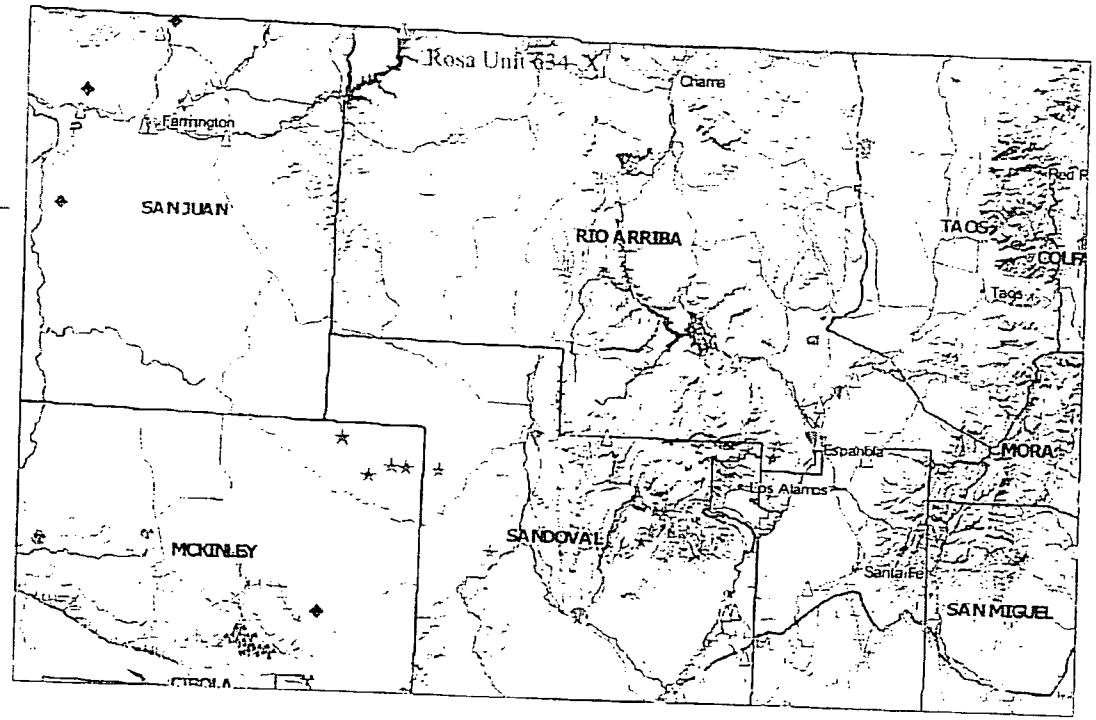


MMQonline Public Version

Mines, Mills & Quarries Commodity Groups

- Aggregate & Stone Mines
- Coal Mines
- Industrial Minerals Mines
- Industrial Minerals Mills
- Metal Mines and Mill Concentrate
- Potash Mines & Refineries
- Smelters & Refinery Ops.
- Uranium Mines
- Uranium Mills

Population



SCALE 1 : 2,203,053

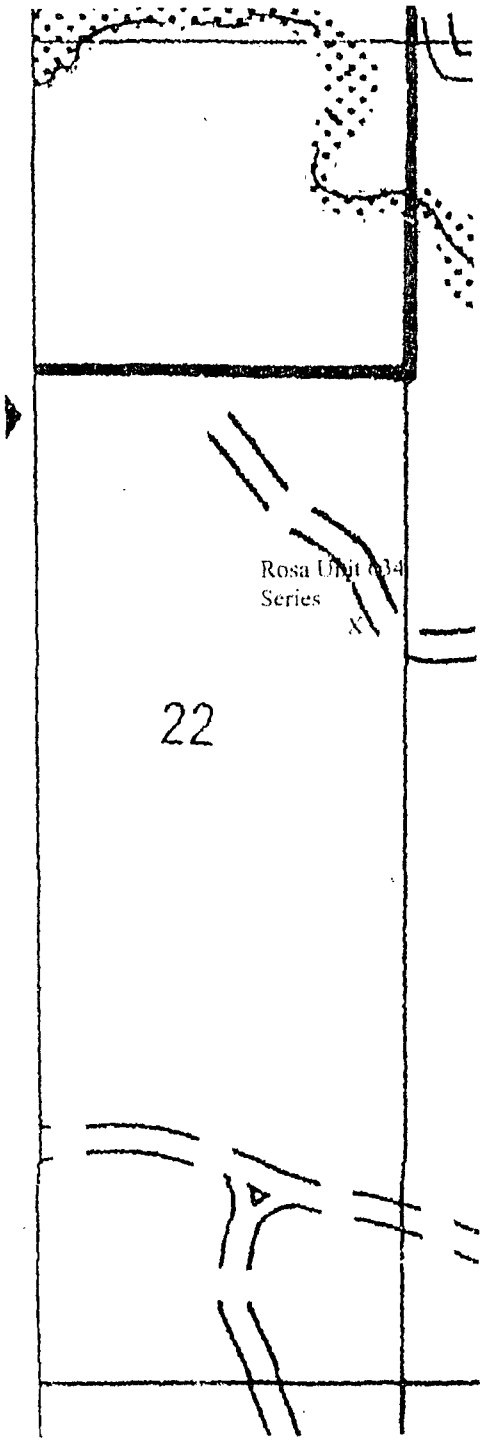
20 0 20 40 60

MILES

N

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 #634 Series wells are 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 Criteria Map II). 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 Criteria Map I). The proposed 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.


Rosa Unit 634
Series
X
22

Williams Production Co., LLC
Rosa Unit #634B (API: Pending)
Drilling and Completion
Closed-Loop & Temporary Pit System

In accordance with Rule 19.15.17 NMAC, the following plans describes the Design and Construction (D&C); the Maintenance and Operation (O&M) and Closure of a closed-loop and temporary pit system to be used for the drilling and completion of the Rosa Unit 634B by Williams Production Co, LLC (WPX).

This system is required as the first portion of the well will be drilled with convention slick-water drilling mud, while the horizontal portion of the well will use an Oil-Based Mud system. The Temporary pit will be used to handle the slick-water muds and associated cuttings ONLY. Once the mud system is converted to OBM the Closed-Loop system will be used. The OBM cuttings and solids will require disposal at an offsite NMOCD permitted landfarm.

The Closed-loop portion of this system will be located immediately adjacent to the drilling/completion rig for solids and fluid handling and to prevent impacts to the immediate environment surrounding the wellsite. The temporary pit portion of the system will be used only for the slick-water mud system. The temporary pit will be on the multi-well pad site.

Design and Construction Plans

Closed-Loop Design & Construction Plan:

The Closed-Loops System will consist of one or more temporary above-ground tank(s) suitable for holding the cuttings and fluids for rig operations and the planned Drilling/Completion activities. The tank(s) will be of sufficient volume to maintain a safe free-board between disposal of the liquids and solids from rig operations. Additional design considerations include:

1. The Closed-loop System used by WPX will not entail a drying pad, below-grade tank or sump.
2. Fencing is not required for an above-ground closed-loop system.
3. It will be signed in compliance with 19.15.3.103 NMAC
4. A temporary pit will be used to store surplus liquids and handle the large volume of cutting anticipated while drilling the disposal well.
5. Haul-off bins or similar containers will be used to temporarily hold dewatered solid prior to disposal either offsite at Envirotech (Permit NM-01-0011) or in the temporary pit if cuttings treated with a soil-burner meet TPH/BTEX levels. Written NMOCD approval of the soil-burner will be required prior to use of this disposal option.
6. Tanks will be placed on the active and disturbed areas of the new well location and within the existing ROW footprint.

Temporary Design & Construction Plan:

General Requirements:

1. WPX will be designed and constructed the temporary pit to contain surplus liquids and recovered solids associated with the drilling and completion of the referenced well which will prevent contamination of fresh water resources and protect public health and the environment.
2. Prior to excavation of the pit, topsoil will be stripped and stockpiled within the construction zone of the wellsite want within the ROW for later use during restoration.
3. WPX will post a well sign, not less than 12" by 24", on the well site prior to construction of the temporary pit. This sign will list the operator on record, the location of the well site by unit letter/section/township/range, and emergency telephone number(s).
4. WPX shall construct all new fences utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts will be installed every 12 feet and corners shall be anchored utilizing a secondary T-post or similar bracing. The temporary pit will be fenced at all times excluding drilling/completion operations, at which time the "front" side of the fence will be temporarily removed for operational purposes.
5. WPX shall construction the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to meet manufacturers' specifications and potential liner failure.
6. WPX shall construct the pit so that the slopes are no steeper than two horizontal to one vertical. Where steeper slopes are required due to surface owner and right-a-way restriction, an engineer's certification of stability will be provided
7. The pit walls will be walked down by a crawler type tractor following construction and prior to liner installation.
8. The temporary pit will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
9. Geotextile will be installed beneath the liner when rocks, debris, sharp objects or irregularities cannot be avoided.
10. The liner will be anchored in the bottom of a compacted earth-filled trench consistent with manufacturer's specifications and at least 18 inches deep.
11. WPX will minimize liner seams and orient them up and down, not across slope faces. Factory seams will be used whenever possible. Field seams will be overlapped per manufacturers' specifications. WPX will minimize the number of field seams in corners and irregularly shaped areas.
12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides (secondary liner placed over the primary liner), and/or a manifold system.
13. The pit shall be protected from run-on by construction of diversion ditches around the location or around the perimeter of the pit as necessary.
14. The volume of the pit shall not exceed 10 acre-feet (77,580 bbl), including freeboard.
15. No temporary blow pit will be needed for the drilling and completion of the reference well.

Maintenance & Operating Plan

Closed-Loop Plan:

The Closed-Loops System will be operated and maintained: to contain liquids and solids, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. The following steps will be followed to attain this goal:

1. The liquids will be transferred to and from the temporary above-ground rig tanks using vacuum trucks. Liquid levels will be maintained to provide required free-board and prevent overtopping.
2. Solids in the Closed-Loop tank will be vacuumed out and disposed of at Envirotech (Permit Number NM-01-0011) on a periodic basis to prevent over topping.
3. No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank(s). Only fluids or cutting intrinsic to, used or generated by rig operations will be placed or stored in the tank(s).
4. The Division District office will be notified within 48 hours of the discovery of compromised integrity of the Closed-Loop System. Upon discovery of the compromised tank, repairs will be enacted immediately.
5. All of the above operations will be inspected and a log will be signed and dated. During rig operations the inspection will be daily.

Temporary Pit Plan:

1. WPX will operate and maintain the temporary pit to contain liquids and solids associated with the drilling and completion of the referenced well which will prevent contamination of fresh water resources and protect public health and the environment.
2. WPX will to the extent practical conserve drilling fluids for reuse by transferring liquids to other pits ahead of the rig. Any excess fluids that are not needed for well control during drilling or completion will be disposed by evaporation or transport to Basin Disposal, Inc in Bloomfield, New Mexico (Permit # NM-01-005).
3. WPX shall maintain at least two (2) feet of vertical freeboard for the temporary pit.
4. WPX shall remove all free liquids from the temporary pit within 30 days from the date the drilling or completion rig is released.
5. Only fluids and solids generated during the slick-water drilling/completion process will be discharged into the temporary pit. Other miscellaneous solid waste or debris will not be allowed.
6. WPX will not discharge or store any hazardous waste as defined under RCRA 40CFR 261 and 19.15.1.7.W(3) NMAC in the temporary pit or associated Closed-Loop system.
7. If any pit liner's integrity is compromised, or if any penetration of the liner occurs:
   a. Above the liquid's surface, WPX shall repair the damage or replace the liner as necessary. WPX will notify the NMOCD Aztec District Office by phone or email within 48-hours of discovery.
   b. Leak below the liquid's surface, WPX shall suspend operations, remove all liquids above the damaged liner within 48 hours, and repair the damage or replace the liner. WPX will notify and report to NMOCD as follows:
      i. If the release is less than 25 bbls, the Aztec District Office by phone or email within 48-hours of discovery and repair.
      ii. If the release is suspected to be greater than 25 bbls, the Aztec District Office and the Environmental Bureau Chief by phone for immediate verbal notification pursuant to 19.15.3.116.B (1)(d).
   c. Written Spill/Release reports will be submitted on Form C-141 per 19.15.3.116.C NMAC within 15 days to the Aztec District Office.

8. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides (secondary liner placed over the primary liner), and/or a manifold system.
9. Diversion ditches, around the location or around the perimeter of the pit, shall be maintained as protection from run-on.
10. WPX shall immediately remove any visible layer of oil from the surface of a temporary pit following cessation of drilling/completion operations. Oil absorbent booms will be utilized to contain and remove oil. An oil absorbent boom will stored on-site until the pit is covered.
11. WPX will inspect the temporary pit as follows to ensure compliance with this plan:
    a. Daily during drilling or workover operations. Inspections will be included with the IADC reports.
    b. Weekly as long as liquids remain in the pit. Electronic copies of the inspections will be kept at the WPX San Juan Basin office.
    c. Copies of the inspections will be filed with the NMOCD Aztec District office upon pit closure.

Closure Plan

Closed-Loop Plan:

The Closed-Loops System will be closed in accordance with 19.15.17.13. This will be done by:

1. WPX will vacuum removed any residual cutting and sludge from all temporary above-ground tanks and transporting cuttings to the Temporary Pit following rig operations.
2. WPX will conserve drilling fluids for reuse by transferring liquids to other permitted pits ahead of the rig, or return the OBM fluids to the vendor for reuse.
3. Removal of the tank(s) from the well location as part of the rig move.
4. At time of well abandonment, the site will be reclaimed and re-vegetated to pre-existing conditions when possible, or as stipulated by the surface management agency (i.e. USFS) in the APD conditions of approval.

Temporary Pit In-place Closure Plan

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the in-place closure requirements of the temporary pit to be used with the reference well. Since the pit location is in a non-sensitive area with groundwater > 100 feet below the pit bottom the closure criteria for non-sensitive areas will be followed.

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

Closure Procedure:

1. All free standing liquids will be removed from the pit at the start of the closure process. To the extent practical WPX will attempt to conserve drilling fluids for reuse by transferring liquids to other permitted pits ahead of the rig. Any excess fluids that are not needed for well control during drilling or completion will be disposed by evaporation or transport to Basin Disposal, Inc in Bloomfield, New Mexico (Permit # NM-01-005).

2. The method of closure for the temporary pit will be in-place burial on-site closure as 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 and consistent with the BLM-NMOCD MOU.

4. Within six months of the "rig-off" status occurring WPX will ensure that the temporary pit is covered, recontoured and reseeding in progress consistent with the USFS APD conditions of approval.

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: Operators Name (WPX), Well Name and API Number, and 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 418.1 modified	2500
GRO/DRO	EPA SW-846 Method 8015M (GRO/DRO)	500
Chlorides	EPA SW-846 Method 300.1	1000

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 USFS APD conditions of approval 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 USFS as the Surface Management Agency and as part of the 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

From: Lane, Myke
Sent: Tuesday, March 09, 2010 10:47 AM
To: Mark Kelly (Mark_Kelly@nm.blm.gov)
Cc: Powell, Brandon, EMNRD; Meador, Tasha ; Riley, Heather
Subject: Landowner Notice - Rosa 634B Pit Closure

This correspondence is to notify the BLM that Williams Production is planning to use a temporary pit associated with the drilling and completion of the reference well and following discontinued use of the pit will close by onsite burial. The planned closure is consistent with the Surface Use Plan submitted with Williams APD.

It should be noted that this well will be drilled using a slick-water mud system for the vertical section of the well. This mud system will use the Temporary pit.

A Oil-Based Mud system will be used for the horizontal section. A Closed-Loop mud control system will be used and no onsite waste disposal is planned for the solids from this CLP.

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 USFS 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

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

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

Form C-144
July 21, 2008

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

4919

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

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

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

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

1.
Operator: Williams Operating Co, LLC OGRID #: 120782
Address: PO Box 640 / 721 S Main Aztec, NM 87410
Facility or well name: Rosa SWD Unit No. 2
API Number: 30-039-30812 OCD Permit Number:
U/L or Qtr/Qtr F Section 25 Township 31N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude 36.886951N / 36.87077N Longitude -107.311156W / -107.31548W NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ 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 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other Volume: 44,000 bbl Dimensions: L 140' x W 70' x D 25'

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
Liner Seams: ☐ Welded ☐ Factory ☐ Other

Denied

The OCD District office reviewed the permit and due to the complexities the District office also contacted the OCD Environmental Bureau regarding the permit. As a result of the discussions the OCD hereby denies Williams permit application. Williams closure plan proposed hauling the drilling cuttings and materials to an off-site location for burial and disposal. Pursuant to 19.15.17.13.D NMAC, approved closure methods for closed-loop systems include transferring waste material and the drying pad liner to a division-approved facility or on-site burial. Pursuant to the on-site closure method provisions of 19.15.17.13.F NMAC, an operator "may use in-place burial (burial in the existing temporary pit) for closure of a temporary pit or bury the contents of a drying pad associated with a closed-loop system in a temporary pit that the operator constructs in accordance with Paragraphs (1) through (6) and (10) of Subsection F of 19.15.17.11 NMAC for closure of a drying pad associated with a closed loop system" on-site. Off-site disposal would require the operator to obtain a surface waste management facility permit (landfill permit) in accordance with 19.15.36 NMAC, unless the waste material is hauled to a division-approved facility.

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EXHIBIT
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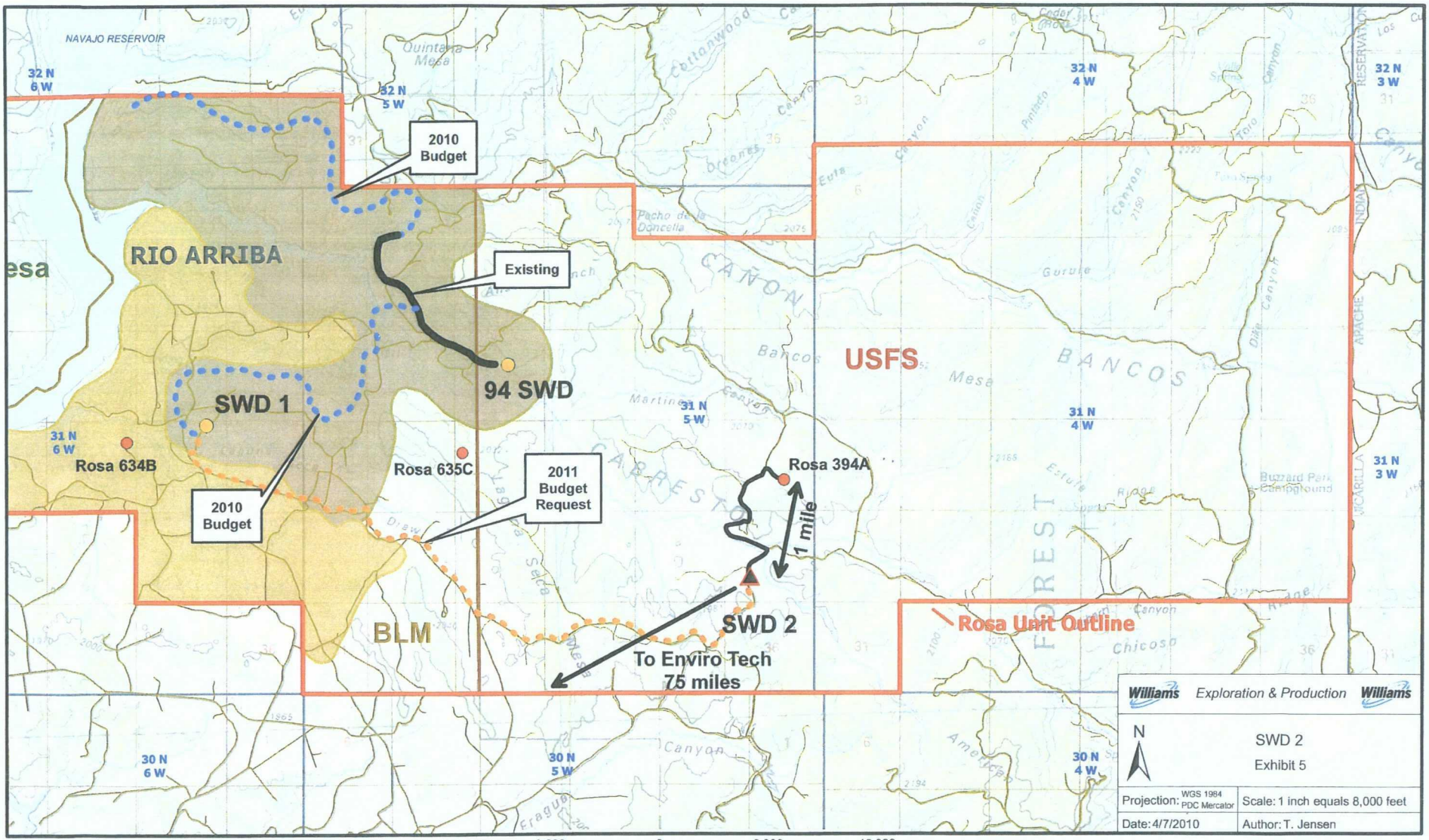

Map Document: (\\Wmstutgp01\gis\Project\San_Juan\Rosa_Unit\SWD\SWD2_Exhibit_5.mxd)
4/7/2010 – 10:00:49 AM

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington Field Office
1235 La Plata Highway, Suite A
Farmington, New Mexico 87401

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
Rosa SWD #2

April 8, 2010

Mark Fesmire
New Mexico Oil Conservation Division
1220 S. St. Frances Drive
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

Reference is made to Case No. 14463, whereby Williams Production Company (Williams) is seeking approval to use a closed loop drilling mud system for the Rosa SWD No. 2, and burial of associated drill cuttings and completion waste at an off-site well location within the Rosa Unit. The Rosa SWD No. 2, is located in F, section 25, T.31N., R. 5W., Rio Arriba County New Mexico. Williams is proposing to utilize a closed loop drilling mud containment system at the Rosa SWD No. 2 location because of the possibility of encountering shallow groundwater at the site. In addition, Williams proposes using temporary pits at alternate locations for cuttings and solid waste management to prevent possible groundwater contamination at the site. The proposed alternate sites are the Rosa Unit No. 634B well, located in H, section 22 T.31N., R.6W., (SHL) and the Rosa Unit No. 635C well, located in E, section 21, T.31N., R. 5W., (SHL). These alternate locations are located on BLM administered lands within the Rosa Unit. Williams has stated that they will bury cuttings in the temporary pit in accordance with the NMOCD pit rule requirements (C-144) and any other appropriate NMOCD rules.

We recently met with Williams to discuss the details and merits of their proposal for a closed loop system and off site waste burial. Williams presented an extensive development plan which addresses new well development scenarios, exploration and seismic data acquisition, water disposal infrastructure and optimization plans and plans for future electrification of the Rosa Unit area. Each of these initiatives provides low impact, environmentally responsible resource development. These proposals, including the off-site waste management proposal under Case 14463, minimizes overall surface impacts, reduces water and cuttings hauling costs, access road impacts, reduces dust and fugitive gases and improves air quality.

Pursuant to the Memorandum of Understanding between the BLM and the NMOCD dated May 4, 2009, we support Williams' application to utilize a closed loop mud containment system and off-site disposal of solid waste and drill cuttings from the Rosa SWD No. 2 well.

ATTACHMENT D

We ask that Williams be required to file a sundry notice with our office detailing the actual location that will be utilized for off-site disposal and the actual pit design and closure criteria. The BLM will take formal action on that sundry prior to our authorizing pit installation and subsequent closure.

If you have any questions regarding the above, contact me at (505) 599-6367.

Jim Lovato

/s/ Jim Lovato
Senior Technical Advisor,
Petroleum Engineer
BLM, Farmington

CC: Williams Production Company
Holland& Hart